Medical students' perceptions of General Practice and its impact on career intentions

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Abstract

Background

The past decade has seen an increase in General Practice workload (Kings Fund, The, 2011), yet there has been a reduction in full time equivalent GP's since 2015 ("General Practice Workforce," NHS digital 2021). In response to this, the UK government has pledged 6000 new GP's by 2024, and created 1000 new GP training places (Iacobucci, 2019), however there is a lack of UK graduates taking these posts.

Existing literature has shown that some medical students perceive that General Practice may be repetitive, unfulfilling and have a high administrative load (Barber et al., 2018; "Destination GP," 2017; Rodríguez et al., 2012). These perceptions may stem from experiences inside or outside of university.

The aim of this study was to conceptualise the factors influencing medical students' perceptions of General Practice, and how these perceptions may impact upon the decision to consider a career in General Practice.

Methodology

This mixed methods study used questionnaires, focus groups, interviews and audio diaries to capture rich longitudinal data regarding students' experiences, and the impact this had upon their perceptions of General Practice.

29 students from three UK universities were recruited into the focus group or interview sections of the study, and six of these went onto the six-month longitudinal diary study.

Narrative analysis (Jeong-Hee, 2015) was performed, to present and understand the stories of the longitudinal participants. Further analysis of narratives then identified themes within this and the focus group data (Polkinghorne, 1995; Sharp et al., 2018).

Results

A number of themes were identified as contributing to the student's perception of General Practice:

External human influencers

Conversations and practical experiences with people may influence students' perceptions of GP. This may be with a medical colleague, such as an inspirational senior, or non-medics such as family or friends.

External non-human influencers

Such as placements, optional additional educational experiences, the media, and over-promotion of GP.

"They say"

Refers to the passive and pervasive phenomenon of perceptions held by students of general practice, with no basis in lived experience. These perceptions may cascade, as they are shared within the medical student community.

Driving force

The above experiences led to a process of reflection, whereby the student compares their experiences and perception with their ethos and values, their intrinsic desire to follow a particular career path, and the practicalities of pursuing that path. This process is a continuum, whereby students continue to reflect upon their experiences and career intention, with the end point at which the student becomes fixed on a career path difficult to ascertain.

Discussion

Through narrative analysis this study enabled understanding of the individual, continuous processes of undergraduate students. And the events which had either a positive or negative impact on their intention to pursue a career in GP. Through further analysis generalisable themes were identified, which may suggest changes in medical education to optimise students' experiences with regards to General Practice. Further research is needed to fully understand the "They say" phenomenon, and to evaluate if any suggested changes to the undergraduate curriculum could improve recruitment into GP training.

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And my family.

This Thesis is dedicated to:

My mother, Jane (1960-2010), without whom I would never have begun down the path to General Practice.

My Husband Kris, and Son Redmond, who believed I could produce this work when I did not.

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Chapter 1: Introduction

1.0 Chapter overview

This is a study of medical students in the United Kingdom, their perceptions of General Practice (GP), and their resultant decisions to pursue or reject this as a career. Despite a body of literature on students' perceptions of General Practice, there is less understanding of how these perceptions develop, and the thought processes of students as individuals.

This introductory chapter will explore the background of General Practice in the United Kingdom, how my interest in this area of research arose, and the development of my research aim, questions and objectives.

1.1 General Practice in the UK

In 2011, an independent enquiry by The Kings fund identified increasing pressures on General Practice (Kings Fund, The, 2011). This paper identified population changes and increased demand for remote access as causes of this increased workload, but highlighted that this had not been reflected in increased numbers of General Practitioners (Kings Fund, The, 2011).

Whilst the total number of employed General Practitioners and GP Registrars has increased, falling numbers of full time General Practitioners means a real term drop in the number of doctors available for appointments. As of May 2022, there were 27, 627 full time equivalent, qualified General Practitioners in England, a reduction from 28, 115 in 2015 ("General Practice Workforce," digital.nhs.uk).

In response to the increased demand on primary care services, and static numbers of full time equivalent General Practitioners, in 2015 the Conservative government pledged 5,000 new GP's by 2021, and a further 6,000 new GP's by 2024 (Lacobucci, 2019).

1.1.1 Recruitment of Graduates to GP

Produced in 2016, General Practice forward view (NHS England, 2016) explored these emerging challenges within GP recruitment. This document has been influential to the choice of topic for this work, and on GP recruitment strategies over recent years. It has however, also been the source of some controversy within the medical community since its publication.

General Practice forward view (NHS England, 2016) suggested that numbers of General Practice training placements should be increased to 3250, and the Department of Health suggested that 50% of graduates should become General Practitioners, in order to meet workforce needs (Department of Health, 2013).

In order to recruit additional General Practitioners, over 1000 new GP training posts have been created, meaning that there were 4000 GP registrars starting training in August 2021. The fill levels for these placements has also increased over recent years, although there are fluctuations between locations ("The General Practice (GP) National Recruitment Office", 2022).

The most recent data from Health Education England shows the appointment of 758 Foundation year two (F2) doctors to the GP training program(UK foundation Programme, 2019). International medical graduates, and older doctors changing career have made up for the deficit in trainees left from the recruitment direct from foundation year.

Whilst trainee posts are being filled, there is a reliance on groups other than foundation year doctors to fill these posts. These other groups come with their own challenges for training. Older doctors will be able to offer a shorter time of service to General Practice prior to retirement. International medical graduates often require more intensive training to assist them in their transition to the NHS, and are more likely to require multiple sittings of General Practice exams (Nunn et al., 2015).

1.1.2 Personal experiences

My interest in this area of research began when I started working in an ITP role (an integrated training post, with the week split between academic and clinical time). At this time, I was a GP Speciality Trainee, I had developed an interest in education during my F2 year and the ITP role enabled me to spend half of my time teaching and being involved in small research projects.

The idea for this project arose from a research project into the phenomena of "GP Bashing", that is, the denigration of General Practice by other specialities. Within my group of colleagues, we realised that we had anecdotal evidence of this occurring, and decided to investigate further. Focus groups of GP Registrars were run with regards to this phenomenon, and questions about "GP bashing" were put into the end of year surveys.

While analysing the data Baker et. Al (2016) produced an article in the British Journal of General Practice calling for doctors to "ban the bash", and stop the denigration of General Practice and Psychiatry.

In this piece of work, we found that 13% of 780 Foundation Doctors and 6% of 344 GPST's (response rates 93% and 89% respectively) in the Northern Deanery had experienced negative comments regarding General Practice. These comments were wide ranging, in their nature, and are summarised in fig 1, which is adapted from the original paper (Alberti et al., 2017a).

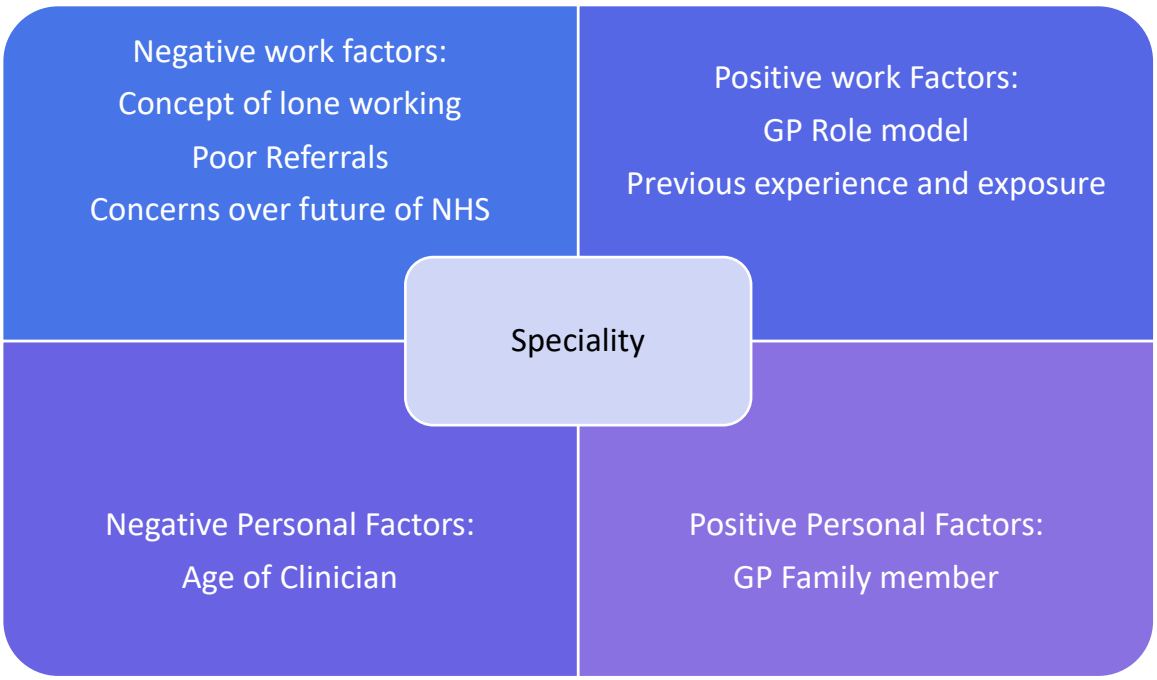


Figure 1: Factors influencing clinicians' perception of General Practice, adapted from Alberti et al. (2017)

In this paper we surmised that these comments were reflective of the perception of the commentator of General Practice. These commentators were wide ranging, from peers, to senior colleagues, and, somewhat disappointingly, GPs themselves. We theorised in this work that these comments, combined with other influences, such as the media or Medical School, may have an impact on the perceptions of Junior Doctors. For those who had not yet chosen their career path, this may influence their likelihood of choosing General Practice as a future career (Alberti et al., 2017a).

This work led me to reflect upon my own experiences, how these had impacted upon my perception of General Practice, and how this in turn had impacted upon my decision to become a GP.

During my time as an undergraduate I noted that there were differing attitudes to General Practice, particularly within the student population. General practice was not spoken of as an attractive career option. Other students wanted "exciting" careers in Surgery, or Acute medicine. There were societies for these careers, but none in my university for General Practice. GP began to feel like a career one "fell into" rather than strived towards.

On hospital placement, I was exposed to potentially unintentional denigration about GP's. An underlying feeling appeared to be that the General Practitioner "had it easy" while my seniors in the hospital were drowning under their workload. This belief began to impact upon my perception of General Practice.

My two rotations in General Practice turned the tide of my opinion of the career. In these rotations I was able to meet seniors whom I felt reflected the type of doctor I would wish to become. I also had positive experiences with my own General Practitioner, who helped me to care for my mother during her terminal illness, and became a role model for me in my future career.

Within my current role I am experiencing first-hand the increased pressures on General Practice, particularly working in a practice which is understaffed.

1.2 Research Problem

Considering the aforementioned recruitment issues facing General Practice in the UK, my own experiences and the paper I had been involved in, I began to develop the concept of a problem which would form the basis for this work.

Primarily, I questioned if my own experiences were reflective of those of other students. Had others who considered a career in General Practice had their perceptions changed for better or for worse during the course of their undergraduate careers? And did the phenomena of denigration, which we had investigated in our paper have an impact upon students, and their thoughts about general practice.

My own searches of the literature, identified that there were a small number of studies surrounding perceptions students held of General Practice. Few of these identified the

process in which those perceptions developed, and there were no studies directly exploring the link between these perceptions and the intention of the student to pursue a career in General Practice. This deficit in the literature led to the development of this work.

1.2.1 Origin of perceptions

Prior to understanding student's perceptions of a career in General Practice, and how these perceptions develop, the nature of perceptions must first be understood.

Perception can be considered as the interpretation of external stimulae, in the context of the individual's personal knowledge. At a simplistic level this can be applied to the interpretation of the sights, sounds and smells of the world around us (Bernstein, 2013; Johns and Saks, 2005), as a simple example, one sees a flying, feathered creature, and interprets this stimulae as being a bird. This study however focusses on perception at a deeper level, that is, the development of a set of beliefs about a career in General Practice among medical students, building on the external stimulae experienced throughout ones life.

Johns and Saks (2005) identify three components to the development of perceptions:

1. The Perceiver; that is the individual who is becoming aware of, in this case, a Career in General Practice. The perceiver's previous experience, their emotional state, or their motivational state may impact on the development of their perception. In this way, the medical student's development of perceptions may well be impacted by personal factors. For example, a student who is motivated to become a GP, may perceive a negative experience regarding General Practice differently to one who aspires to a career in Surgery. Equally, a student who has had a significantly negative experience of General Practice in the past, may find that a positive experience then has little impact, due to the ongoing impact of the prior negative experience.
2. The target; the person (or in this case the career) that is being perceived. Little knowledge of the target requires the perceiver to gather more information, or to layer their own interpretation onto what is already known.
3. The situation; the perceiver may require additional information, dependant on the situation in which the knowledge is gathered. For example, the perceiver may hear

discussion regarding General Practice in a lecture, and may appreciate a need to back this up with further experiential learning (Patrick, 2011).

Johns and Saks components identify three necessary aspects which are present during the formation of perceptions, indeed, anecdotally it is possible to recall how variations in the three components have impacted upon my own perceptions in the past. However Johns and Saks concepts do not highlight the process of forming understanding from these experiences, in order to explain this, Johns and Saks turn to the earlier works of Bruner in his model of perception (Bruner and Postman, 1949; Johns and Saks, 2005).

Bruner theorised three steps to the development of an opinion or perception of a concept (Bruner and Postman, 1949), here combined with the terms coined by Johns and Saks (2005):

1. When a Perceiver encounters a new target, they gather informational clues to increase knowledge of the target.
2. More information is gathered, over time familiar cues are gathered which enables categorisation, and reinforce the belief about the target.
3. Information gathering becomes more selective, cues which dispute the belief are disregarded or distorted, whereas cues which confirm the belief are actively sought out until the Perceiver develops a constant perception of the target.

Bruner's theory suggests that the development of perceptions is a relatively rigid process. The perceivers gathering of familiar clues purpose is to reinforce belief about the target, and non-conforming clues are rejected. This suggests that there is a finite time in which perceptions are pliable, and able to be changed, before the Perceiver has fixed their perception of the target.

1.2.2 Conceptualising the process of perception development and career intention

Given my own experiences, and the theories of Bruner (1949), Johns and Saks (2005), I developed the following conceptualisation of the process which may lead to the individual rejecting a career in General Practice.

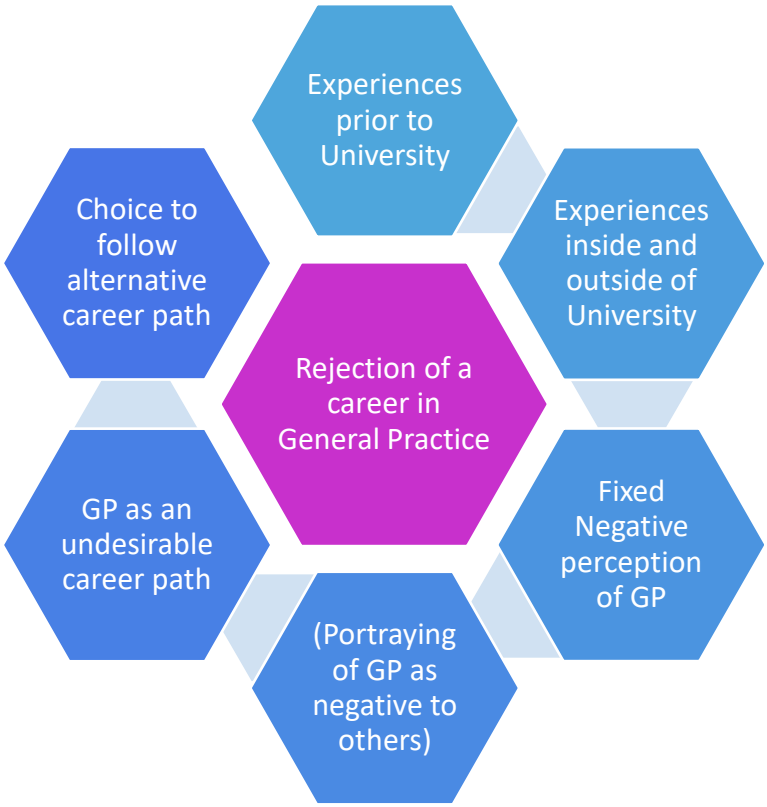


Figure 2: Process theorised as resulting in an individual rejecting the GP career path

As can be seen in figure 2, I suggest that the primary stage of the development of perceptions occurs prior to the commencement of studies at university, for example, visits to their own GP or the media. Once a medical student joins an institution, further clues are taken from experiences which either reinforce or refute the previously held perception. Of note, in the above diagram "portraying of GP as negative to others" is in parenthesis, as it was theorised that not all individuals with a negative perception of General Practice will disparage the career to their peers.

If we consider Bruner's (1948) theory, at some point in time the perception of the individual becomes fixed. This may have occurred prior to university, during time at university, or after university, during the years as a Junior Doctor. At this point the individual may partake in denigration, that is portraying General Practice negatively to others. Once this fixed negative perception is in place, I theorised that the individual will identify GP as being an undesirable career path, and then choose an alternative.

Of course, the converse may be considered true for an individual who develops a fixed positive perception of General Practice from their experiences. They may go on to praise GP to others, and select it as a career choice.

At this early stage in the research my theory was a relatively linear process, each step leading to the next. Although it was believed that there may be factors, as yet unknown, which may affect the process.

This was primarily a hypothesis based upon my own experiences, the development of my own perceptions and career intentions, as noted by my own, retrospective self-reflection. The entirety of this process in my case, took place over decades, hence as a whole would not be suitable for the time constraints of this work. However, my theorising of this process, and my interest in medical education, led me to consider how the experiences of a student inside and outside of university may have an impact upon their perception of General Practice. This led to the development of the aims, research questions, and research objectives for this work.

1.3 Aims and Research Questions

1.3.1 Aim

The aim of this study was to conceptualise the factors influencing medical students' perceptions of General Practice, and how these perceptions may impact upon the decision to consider a career in General Practice.

Whilst this work was developed within the context of current General Practice workforce difficulties, this project focuses upon the experiences and perceptions of individual students. The purpose of this focus was to understand individual factors influencing students' perceptions, and an in depth understanding of how these perceptions may influence their future career choices.

1.3.2 Research questions

"What experiences, both University and in their personal lives, develop Student's perceptions of General Practice as a career?" [RQ1]

"How do causal factors, and perceptions of General Practice, impact upon the student's decision to pursue or reject a career in General Practice "[RQ2]

1.3.3 Research objectives

In attempting to identify if student's perceptions change across the course of their undergraduate career, ideally individual students' likelihood of becoming a GP could be assessed at the beginning and end of their studies. However, with the length of a medical undergraduate course, this would not be possible within the time frame. My first objective identifies changes in the individual student's likelihood of becoming a GP over a shorter period of time, and a global understanding of the difference in likelihood of becoming a GP between students in their first and penultimate year at university.

1. To map changes in the likelihood of students to choose a career in General Practice over time at medical school.

When considering RQ1, thought had to be placed into *what* students perceived General Practice to be, then *how* and *why* these perceptions developed. The following objectives focus on the development of these perceptions within the context of student's experiences both in university and their personal lives.

2. To identify the perception of General Practice as a career of medical students in their first and penultimate years at university.

3. To understand how experiences at university may have a causal effect upon the perceptions highlighted in RO2.

4. To understand how experiences outside of the university environment may have a causal effect upon the perceptions highlighted in RO2.

By identifying perceptions of first year students, some understanding may be gained of their perceptions prior to university, and students may be able to identify pre university experiences which have contributed to these. Identifying the perceptions of students in their penultimate year, and making links to their experiences, draws into my ultimate aim of understanding how these experiences impact upon the perception of the student and aims

to provide an example of how students perceptions develop and change throughout medical school.

5. To identify and understand any relationship between the development of a student's perception of General Practice and their intention to pursue or reject it as a career.

Finally, as highlighted in RQ2, I aim to understand change in perceived likelihood of becoming a GP, in the context of the experiences the student has at medical school. This final objective links the two research questions and leads to my hopes for the significance of this research. In understanding how experiences develop perceptions, and the link between this and changes in students perceived likelihood of choosing a career in General Practice, an understanding may be developed of how a student's experiences ultimately lead them to or away from a career as a GP.

1.4 Research significance

Completion of this work and the answering of the research questions hopes to provide an in-depth insight into how students perceptions of General Practice change from their pre-university perceptions, to those that they hold as they graduate. Particularly valuable is an understanding of the experiences which contribute to the development of these perceptions.

My ultimate hope for this work is that, through understanding particular experiences which have an impact on perceptions and likelihood of choosing GP as a career, we can consider how (as educators) our particular institutions portray General Practice to the workforce of the future.

Universities may be unable to have a major impact on the pre-university perceptions of students, or those experiences they may have at home which may impact upon their perception of General Practice. However, curricula elements such as placements and lectures are within the control of the University to change.

My hope is that this work, along with future works contributing to the wider body of knowledge, will enable institutions to foster as positive and supportive atmosphere of

General Practice learning. Resulting in graduates who are open minded about this as a career. It may be naive to consider that one piece of work can continue to turn the tide on GP recruitment, however I hope that suggestions from this work may have an impact on the number of applicants as GP training places increase.

1.5 Thesis Structure

The chapter structure of this thesis is laid out in the figure three below:

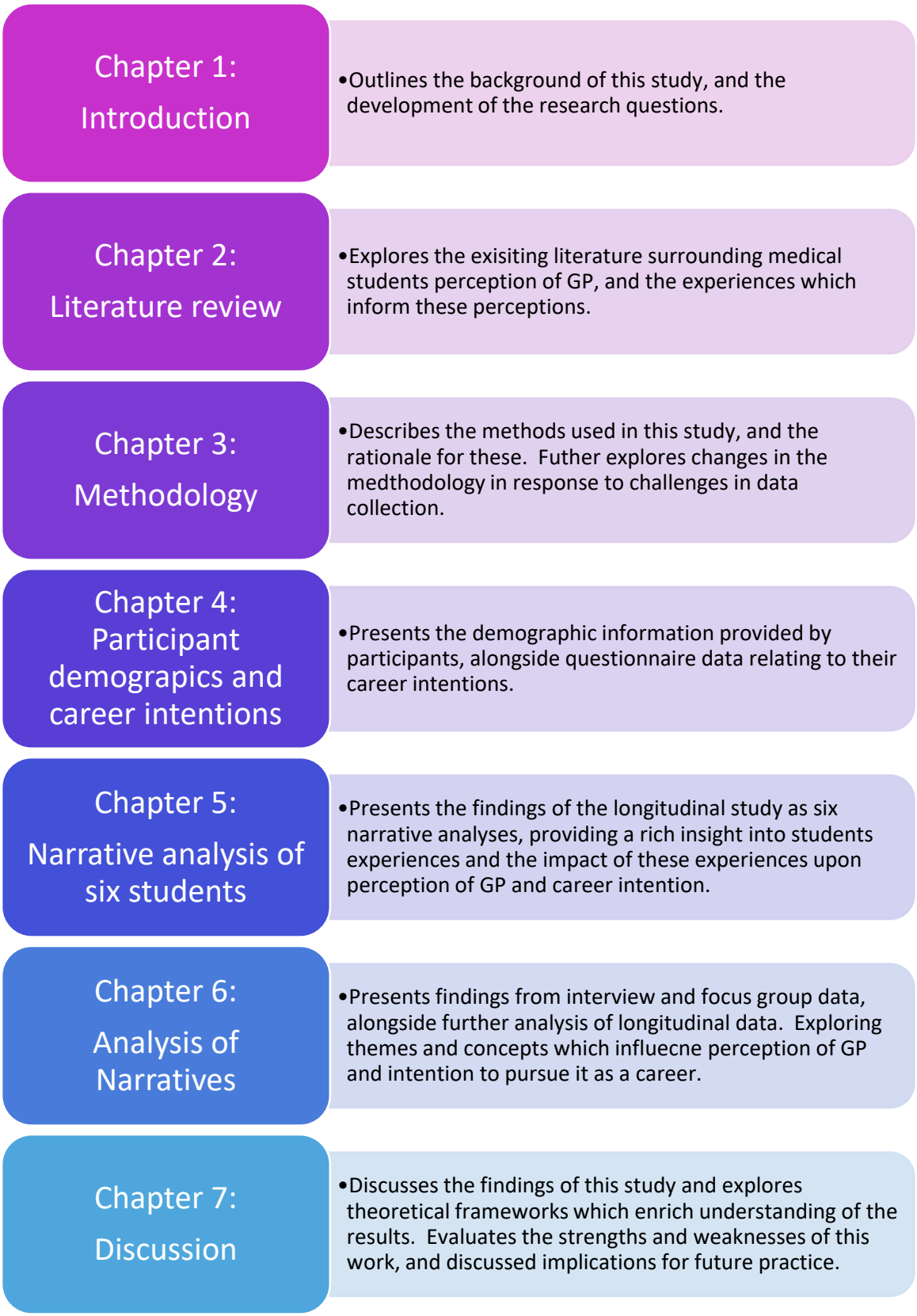


Figure 3: Structure of thesis

The remainder of this work, alongside these seven main chapters, encompasses a glossary of terms, appendices and references.

1.6 Chapter summary

In this chapter the origins of this work have been explored, in the context of my personal experiences leading to my interest in this subject matter. The development and rationale of the research questions has been discussed, and the significance of this research theorised. Finally, the structure of the remainder of this Thesis has been outlined.

Chapter 2: Literature Review

2.0 Chapter overview

This chapter explores the existing literature surrounding medical students' perceptions of General Practice, and how these perceptions have developed. Due to a scarcity of literature surrounding the development of perceptions, perceptions of psychiatry, another speciality with recruitment difficulties has also been included in this review. Literature regarding changes in career intention have also been analysed.

2.1 Purpose

The underlying purpose for this review was to inform my research questions and methodology, ensuring I addressed an existing "gap" in the literature, and using pre-existing work to inform my own methodology. A deep understanding of the current literature offered a lens through which my own work could be critiqued and enhanced ensuring a robust study which provides new knowledge into the field.

When considering the purpose of literature review in the context of this specific study, my aim was directed by my research questions. It is of note that these questions were themselves further refined by the review of the literature itself, however they do offer insight into understanding the aims of this part of the work:

1. *"Do students experience a change in their perceived likelihood of becoming a GP, in light of their experiences at medical school? "[RQ1]*

Through this review of the literature, I aimed to understand if it was known that student's likelihood of becoming a GP changed during their time at medical school. As can be seen in 2.2.2, the scarcity of literature in this area led to a broader question being asked, that is, "Do students experience a change in career intention in light of their experiences at medical school?"

2. *"How do students reported experiences both and University and in their personal lives develop their perception of General Practice as a Career?" [RQ2**]***

The crux of my review focussed on identifying experiences which influenced student's perceptions. In order to understand this, insight was firstly needed into what students perceived a job as a GP to be, after identifying these perceptions my focus shifted onto works which had identified how these perceptions had developed.

I will begin this review by highlighting my method for searching and identifying relevant literature, and my rationale behind this. Followed by my review of the theoretical works underpinning the development of perception, and finally my review of the research and literature relating to this work.

2.2 Literature review methodology

This review of the literature required consideration of four aspects of the literature; theoretical, policy documents, political, and current research. The following outlines my methodology for reviewing each of these aspects of the literature.

For the purposes of producing a cohesive narrative through this review, the literature pertaining to RQ2, that is change in career intention over time are presented first. Followed by the literature surrounding perceptions of General Practice, in order to first conceptualise the processes of career decision making before moving onto the more practical application to general practice.

2.2.1 Theoretical

Through wider reading, a theoretical framework was identified through which the literature could be framed. In "Making Doctors" (Sinclair, 1997), Sinclair identifies three theatrical concepts, the frontstage, backstage and offstage, adapted from an original work by Goffman (Goffman, 1990). Sinclair considers that students experiences fall into these three categories, in either an official or an unofficial capacity.

This framework suggested by Sinclair offers a lens through which I was able to review the literature, a conceptualisation through which deeper understanding of the literature, was able to be gained. This framework was particularly beneficial when reviewing the literature, due to its consideration of student's personal backstage experiences, and their public frontstage experiences.

The use of the framework offered a starting point for viewing this literature, and review of the concepts which did not fit neatly into a category contributed to my deeper

understanding of the underlying concepts in this field. Further explanation of Sinclair's framework and its application to the literature can be found later in this chapter.

2.2.2 Policy and Political

Documentation from the Royal College of General Practitioners, the General Medical council, the medical school's council and NHS England were searched for policies and documents produced within the last ten years relating to General Practice, and these were analysed for relevance to this work.

Grey literature such as this is often produced in response to a perceived need by government agencies, such as forward planning for recruitment. Therefore, searches were carried out over a relatively recent, ten-year time frame, in order to capture documentation produced in response to recent trends in recruitment.

2.2.3 Current Research RQ1

Ovid and Scopus were systematically searched using combinations of the key words, "Student", "Perceptions" and "General Practice". The primary searches of "student", "perceptions" and "General Practice" proved very narrow. The key words of "identity", "denigration" and "career choice" were therefore substituted for "perceptions" as these broad concepts were identified within the literature from the primary search (hereby referred to as the secondary search, *figure 4)*.

Searches were limited to English language publications, and papers published in Europe, Canada and Australia. These geographical areas were selected as they have social healthcare systems, with an established General Practice workforce.

Literature from the USA was excluded from these searches due to the highly privatised nature of the American Healthcare system. This results in the "family doctor" having a very different role to that of the GP in the UK (and other social healthcare systems), where the GP is required to act as a "gatekeeper", using shared decision making with patients to manage conditions within the practice, or referring onwards (Loudon, 2008; Rotar et al., 2018). South America, Asia and Africa were also excluded due to a mixture of privatised and social healthcare systems, and the emerging role of the GP in these continents.

Papers from 1990 onwards were reviewed as those GP's who were beginning their careers in the 1990's onwards are now involved in the teaching of Student doctors, any perceptions

they held may be impactful upon the experiences present- day students have, and therefore the perceptions they may develop. I felt it valuable to attempt to understand these perceptions therefore when reviewing the existing literature.

It is of note that the majority of the (particularly British) literature reviewed was written post-2005. I theorise that this may be due to a delay effect. During the 2000's, numbers of General Practitioners remained high (Mackley et al., 2018), reduced recruitment had not yet been "felt" by the system. This may have resulted in less drive towards such research.

These searches initially yielded a large number of papers. Duplicates were removed then these were screened for relevance to the study, firstly through a review of paper titles and adherence to the above criteria, and then by reviewing abstracts of the remainder. This resulted in 49 papers being identified for this literature review. This process is summarised in figure 4 below.

Following review of the papers identified in the primary and secondary searches, it became clear that there was limited research into *how* the perceptions of students developed. Therefore, the same search was performed, replacing "General Practice" with "Psychiatry" (hereby referred to as the tertiary search, *figure 4)*.

I chose to extend this search to psychiatry as, like General Practice, is also suffering a recruitment shortage, with many training posts unfilled (BMA, 2022). In 2018, only 2.1% (137) of doctors finishing F2 commenced a psychiatry training post, with wide variation between different institutions (0-3.8%) (*UKFPO*, 2018). As of March 2019, 96 of 460 psychiatry training posts were unfilled and were open for second round application (Health Education North West, 2019).

Though perceptions of Psychiatry may be somewhat different to those of General Practice, an understanding of the events impacting these perceptions, and how they develop in the mind of the student, may offer further insight into how perceptions develop around General practice as a career.

Significantly fewer papers were identified relating to psychiatry: 16 papers from any location around the world were reviewed, provided they were written in the English language, and (as with the Primary search papers) prior to 1990. Global papers were chosen for

psychiatry, as this speciality is broadly similar across healthcare systems, unlike the role of the GP which varies between public and private healthcare systems.

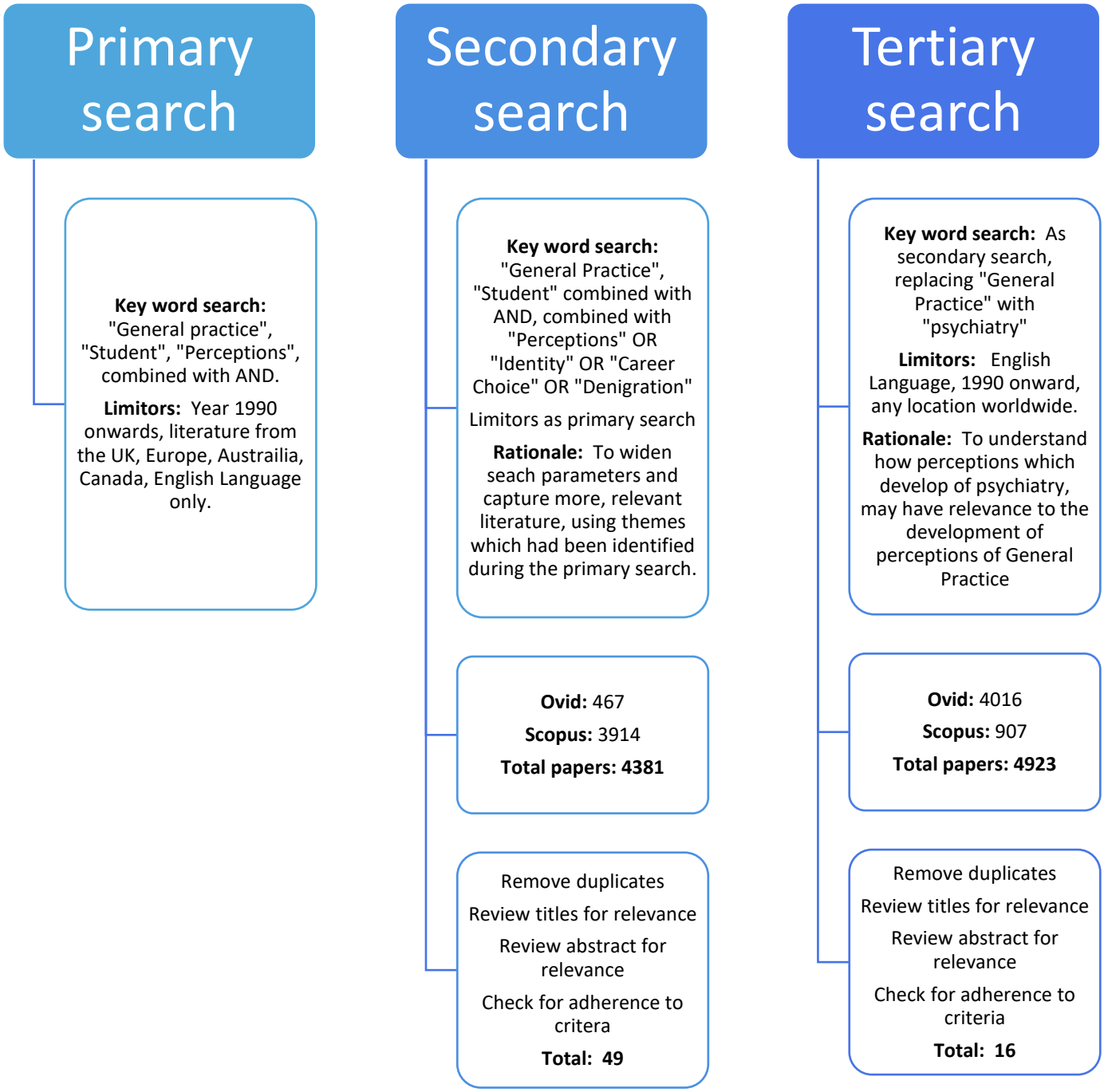


Figure 4: Progression of the primary, secondary and tertiary literature searches using Ovid and Scopus

A further breakdown of the numbers of papers identified in the initial searches can be found in Appendix one, and a PRISMA matrix of eligible criteria under each search may be found in Appendix two.

2.2.4 Current research RQ2

The Ovid and Scopus databases were systemically searched using the keywords "Medical Student", "career intentions", "Change" and "General Practice". This search yielded no results and identified an existing gap in the literature, and refocused the aim of this search upon the question:

"Do students experience a change in career intention in light of their experiences at medical school?"

Changing the question asked of the literature thusly enabled an understanding of the changes in career intentions already identified within the literature, and in particular, if any experiences are ascribed to that change. When no results were found using the first set of key words, "General Practice" was removed, leaving "Medical Student", "Career intentions" and "Change".

Studies not in the English Language were excluded and the search was limited to papers from 2010 to the present day. Medical School curricula are revised frequently, and limiting searches to the last decade intended to capture data relating to current curricula.

Worldwide studies were reviewed, as this review focused on changes in career intention, rather than changes in intention to become a GP.

These searches identified 71 papers in both databases (2 in Ovid and 69 in Scopus), after subjecting these papers to the reviews previously discussed, 21 papers were identified of relevance to this literature review.

The data from this search is presented first in this chapter, in that the wider question of career intention may be discussed, before focusing into the detail of General Practice.

2.3 Changes in career intentions over time in medical education

As highlighted in section 2.2.3, no papers were found solely exploring changes in student's intention to pursue a career in General Practice. Therefore, my search was widened to explore changes in any career intention of students, particularly in light of experiences at medical school.

For the purposes of readability, changes in career intention are presented firstly in this review, followed by an in depth focus on perceptions of General Practice. Due to the small numbers of papers involved in this section of the review, many of which focussed on specific small specialities, a thematic analysis was not appropriate, therefore these few papers are presented by clinical area. Firstly, papers discussing global change in career intention are reviewed, followed by specific clinical areas of psychiatry, rural medicine, underserved areas and neurology.

2.3.1 Changes in career intentions during medical school: European trends

Four of the identified papers discussed global changes in student's career intention during their time at medical school. Maudsley et al (2010) followed a group of students from first to fifth year at Liverpool University, questioning them on their career intentions in their first, third and fifth year of study. 52% of students reported the same career intention at third year as they did at entry. By year five this had dropped to 31%. Unfortunately, only 31% (74) of the original participants completed the final year questionnaires.

Whilst important to allow for those students who did not respond, this data does indicate that many students experience a shift in career intentions through their time at medical school. Interestingly nearly half of students questioned changed their career intention during the first two years at medical school, a time when traditionally students would have less clinical experience, and spend more time in the lecture theatre. The paper did not identify if students had a change in career intention between third and fifth year, only that another 21% had changed their intention from their primary questionnaires by the middle of their fifth year of study. One can surmise that this 21% of students had experiences during their clinical years, traditionally the final three years of study, which impacted upon their career intention. There is however no indication how the clinical years may have impacted further upon the career intentions of the 52% of students whom already had changed their career plans.

Maudsley et al (2010) also explored intention to pursue a career in General Practice. Of the 74 participants who responded to all the longitudinal questionnaires, 12 indicated a preference for a career in GP in their first-year questionnaire, and 9 of these 12 still intended to pursue this career by their fifth year. By fifth year a total of 26 students had indicated a preference for a career in General Practice, meaning 14 of these students had developed this preference over the course of their studies.

The students were questioned as to their reasoning for this career preference, cited reasons included concepts of "variety", "low stress", "family life", and the idea of medical training equipping students to be Generalists over specialists (Maudsley et al., 2010). Although these concepts were not more widely explored, they do link with some of the perceptions explored within this literature review in section 2.4.

Whilst this paper addresses many of the questions raised by this literature review, the methodology of this work needs to be considered when drawing conclusions from it. The data collection for this work began in 1999, was completed in 2006, and the paper was published in 2010. Although the nature of longitudinal data collection means that some time delay is inevitable. The medical curriculum at Liverpool will have undergone changes in the two decades since data collection began, and so this data may not be reflective of the changing career intentions of current students.

Cleland et al.(2016) similarly looked at the career intentions of first and fifth year medical students, however this was performed as a cross sectional study of two different groups, from four medical schools in Scotland. 2682 respondents (response rate 80.4% of first years and 81.4% of fifth years) were asked to identify a "top three" list of future career plans, the five most commonly occurring career choices are summarised in table 1 below. It is of note that the percentage stated is of the total number of respondents in that year group who cited this career as one of their "top three". For the purposes of this review less frequently cited careers have been excluded.

Year One (N=1332)			Year Five (N = 1325)		
Career	Top three count: N	% of Y1 respondents	Career	Top three count: N	% of Y5 respondents
Medicine	822	61.7	Medicine	603	59.2
GP	603	45.3	GP	559	55.3
Surgery	483	36.3	Emergency Medicine	416	41.1
Paediatrics	430	32.3	Anaesthetics	334	33
Emergency medicine	334	25.1	Surgery	268	26.5

Table 1: Three most commonly cited career intentions by Scottish Medical Students, adapted from Cleland et al. 2016

Direct comparison between the longitudinal study of Maudsley et al. (2010) and the cross-sectional study of Cleland et al. (2016) is difficult. The experiences the year one students in Scotland will be different to the experiences of their peers in the fifth year, and whilst this data suggests that by their fifth-year fewer students will wish to pursue a career in General Practice, this is an assumption based on the experiences of current fifth year students. Maudsley et al. (2010) seems to be in direct contrast with the work of Cleland et al. (2016), suggesting that medical Students are more likely to pursue a career in General Practice when they reach their fifth year of medical school. However, the age and lower response rate of Maudsley et al (2010) means that the question is raised as to which of these two papers is more indicative of the career intentions of the medical student population at large.

Cleland et al (2016) also found that Scottish students were more likely to have a preference for a career in General Practice compared to their peers from the rest of the UK or oversees. Students were also questioned as to the importance of work life balance and intellectual satisfaction in their choice of career. Students who felt work life balance was extremely important, but intellectual satisfaction was not, were far more likely to select General Practice as one of their "top three".

The concept of the intellectual challenge has also been raised in a Hungarian study by Girasek et al. (2011), this will be discussed in further depth later in this chapter. This study requested that medical students and Junior Doctors identified key factors in their career choices. Pay, general interest, a desire to help and a sense of vocation were all identified by students as doctors, as was the concept of intellectual work. When considering Girasek et

al. (2011) alongside the work of Cleland et al. (2016), the concept of intellectual satisfaction as a driving force for some students is reinforced.

In Switzerland, Pfarrwaller et al. (2022) performed a longitudinal study of two cohorts of students. These 217 undergraduates completed a yearly questionnaire regarding career intentions. Pfarrwaller et al. (2022) found that career intentions changed most over the course of clinical training, when students were engaging with doctors from multiple specialities. The study also explored motivations behind career intention, finding those with an intention to pursue a career in primary care were strongly associated with motivations such as altruism and private practice, and less strongly associated with prestige and academia. Whilst we have seen some of these associations, particularly the consideration of General Practice being an "un-academic" or "non-intellectual" career in previous papers; the association between private practice and General Practice is one which is unique to Switzerland. The Swiss healthcare model is run through compulsory insurance, and relies heavily on private practice. Of note, the primary care label in Switzerland is also applied to paediatrics (Pfarrwaller et al., 2022).

Whilst Pfarrwaller et al (2022) shares similarities with Maudsley et al. (2010), one must be cautious in applying Pfarrwaller et al's (2022) findings directly to medical students in the UK, given the nature of the differences in primary care in the two regions.

The impact of covid-19 on career intentions

The covid-19 pandemic has resulted in unprecedented changes for medical students worldwide, both in terms of their learning, and the profession into which they will qualify.

Wang et al (2022), in their questionnaire of self-reported changes in career intention in Chinese medical students, highlighted a number of factors specific to the pandemic. Perception of medicine as being a "dangerous" career, and having parents in the medical field were associated with a change in career intention, as was residing in a rural area or being in a year group on clinical placements. It may be theorised that these groups experienced the higher risks of medicine in the pandemic environment, resulting in consideration of their future career choice.

Differences in the medical school experience were also discussed, lack of face to face mentorship and social isolation were highlighted as impacting upon students educational

experience (Wang et al., 2022). Whilst the insights from Wang et al (2022) are valuable, they do not differentiate between those who would choose to leave the medical field altogether, or those who wish to consider a different speciality following their experiences.

When considering the previous papers on career intentions, it is clear that more research is needed. There is a change in likelihood of choosing a career in General Practice over time, however three of the papers are in disagreement as to what this change is. The work of Cleland et al. (2016) goes some way towards understanding why students may be drawn to or dissuaded from a career in GP, but the perceptions of the students that GP provides a "work life balance" requires further explanation. Furthermore, the change in the number of students identifying General Practice as a potential future career implies that this perception of General practice has developed, or become less desirable over time.

2.3.2 Psychiatry

There is a small body of evidence surrounding intentions of students to pursue a career in Psychiatry. These papers mainly surround changes in career intentions following an educational event or placement.

Placements as part of the curriculum may have a positive impact on career intention. 106 students in Iran completed a survey before and after a placement in Psychiatry. 53.3% of students prior to the placement agreed with the statement that "Psychiatry is attractive as a career and it involves many fields of study", increasing to 76.7% following the placement (Khajeddin et al., 2012). This statement does however require clarity, its dual aspect makes it unclear which of the two points is agreed with by the students. The conclusion can however be drawn that there is an increase in positive attitudes towards psychiatry following the placement.

Mortlock et al. (2017) considered the effect of more unusual enrichment activities as part of the undergraduate curriculum. Students attended a one-day teaching session at Broadmoor forensic Psychiatric hospital, a location well known through the media as a forensic hospital housing high risk offenders. They completed an attitude towards psychiatry questionnaire before and after attended, which demonstrated an increase in positive attitudes towards psychiatry.

Extracurricular events have also been found to have a positive impact on intention to peruse a career in psychiatry. Beattie et al (2013) evaluated the effectiveness of a three day summer school in Psychiatry using an attitudes toward psychiatry survey. They noted a statistically significant change in mean attitude toward psychiatry following the summer school. 47% of the attendees were initially intending to pursue a career in psychiatry, increasing to 68% after the summer school intervention. The study was however small, of only 19 students, and it was unclear how these students were selected. The high percentage of the attendees intending to pursue a career in Psychiatry prior to the summer school implies that the school was attractive to those who were already considering this career.

Although not directly reflective of the career intentions of medical students, placements in psychiatry for Junior Doctors have also been shown to increase likelihood of choosing a career in psychiatry. Particularly related to an increase in likelihood of pursuing the career was enjoyment of the placement, and the quality of the supervision provided (Joiner et al., 2017).

Many of the papers surrounding change in attitude towards a career in Psychiatry have been focussed upon evaluation of an educational or career intervention. As such, questionnaires have been pre-intervention and post-intervention. It is not clear from the available literature if such interventions would result in a longer-term change in career intention. Some of these papers have also identified particular experiences, and touched upon perceptions which have resulted in changes to intention to pursue a career in psychiatry. These changes in perception are discussed in further detail in section 2.4.

2.3.3 Rural medicine

The concept of Rural medicine is one which is rarely seen in the United Kingdom, it refers to medicine in remote areas of low population, particularly in Australia, New Zealand and areas of North America. There is a small volume of research into students intention to pursue a career in these areas, due to a paucity of Rural doctors, particularly in Australia, that has stretched some twenty years (Kamien and Cameron, 2006). Whilst this career role rarely occurs in the UK, the current research does offer some insights into events which may change the career intentions of Student Doctors.

Kent et al. (2018) reviewed outcome tracking data from both of New Zealand's medical schools between 2006 and 2016. In total 4368 (85.9%) of students responded in their first year, and 66.4% of students completed the questionnaire on leaving university. They found that 21.1% of students persistently wanted to work in Rural areas, and this was strongly associated with having a rural background. Of those who changed their career intention from working in an urban to rural environment (12.1%), there were only small differences between influencing career factors. However there was a marginally stronger association with domestic circumstances than advancement and finance (Kent et al., 2018).

Isaac et al. (2014) performed a longitudinal survey of students at baseline and one year after completing a Rural Clinical School programme. The Rural Clinical School programme, funded by the commonwealth, consists of a yearlong placement in a rural location. Isaac et al, (2014) identified that of the students who had previously intended to work in a metropolitan location, 41% changed their intention, and planned to work in a rural location following the placement.

Similarly, Lee et al. (2011) performed a study of 40 students graduating from universities which ran a Rural Clinical School programme, questioning them retrospectively on their career intentions. Students who partook in a rural elective such as the Rural Clinical Schools programme were more likely to have future rural career intentions and these were more likely to endure (Lee et al., 2011; Playford et al., 2021). Students from non-rural backgrounds had a greater change toward an intention of a career in Rural medicine, however this needs to be considered in the context of rural background being a strong predictor for practicing in a rural area (Moffatt, 2017). That is, students from a rural background may fix upon this career path earlier, and so exhibit less potential for change toward rural medicine.

It is of note that these Rural Clinical School placements are not compulsory, therefore an element of selection bias within the above results needs to be considered.

In contrast to the above, students at the University of Queensland undertake a compulsory six-week rural placement. Data from 1609 students over a five year period found that 40% of these students were encouraged toward a career in rural medicine following the experience (Moffatt, 2017). Interestingly the work of Lee et al. (2011) indicates that compulsory placements had a strong influence on students' choice to enrol in elective

programmes. A combination of compulsory and elective placements may therefore have the greatest impact on change of career intention.

The work of Williamson et al (2012) reinforces the findings of the aforementioned papers. Postgraduates from three Universities were questioned, Dunedin, in which students undertake a rural placement, Christchurch and Wellington, in which they do not. 56% of the Dunedin students reported that their undergraduate studies had a positive influence upon their attitude towards Rural medicine, compared to 24% from Christchurch and 15% at Wellington. Interestingly this positive effect had reduced from previous data of Dunedin students, collected immediately after their placement, which was recorded at 70%.

Unfortunately, this positive attitude did not translate into larger numbers of graduates working in rural medicine, with no significant difference between graduates who had or intended to work in rural practice at any time in their career (Christchurch 31%, Dunedin 24%, Wellington 16%) (Williamson et al., 2012). Availability of high quality training positions, work life balance and family commitments were identified as being associated with a change in career intention away from rural medicine (Cano et al., 2021). These considerations, particularly family commitments, may only become apparent with increased age, and may therefore offer an explanation as to why changed in career intention for undergraduates do not translate into increased numbers of qualified doctors.

Extra-curricular activities, as seen in the literature surrounding psychiatry, are seen to have an effect upon career intention. Kent et al. (2018) surveyed students on entry and exit from medical school in New Zealand. They found that 16.8% of students changed their career intention from urban to rural medicine, and of these students, 45% had involvement with a Rural Medicine club.

2.3.4 Underserved areas

Medically underserved areas, that is; populations that are known to experience economic, cultural or linguistic barriers to healthcare (Oliver and Underwood, 2015) have typically been areas that have suffered from physician shortage (Boscardin et al., 2014). These populations typically have high proportions of low income groups, ethnic minorities, older adults, children, and people with special healthcare needs (Oliver and Underwood, 2015). Although rural areas fit within the criteria of being underserved, the literature focusses on

rural areas separately to other underserved populations, and hence they have been separated within this review.

Growing up in an underserved area, belonging to the black or Hispanic community, high intrinsic religiosity, or a sense of calling are all associated with a desire to work in an underserved area (Grbic et al., 2021; O'Connell et al., 2018) Experience in community health, International experience, learning a language and attending a school with a higher social mission score were all associated with a positive change toward work in underserved areas, or reaffirmation of a desire to work in these areas in two longitudinal studies of students at American medical schools (Boscardin et al., 2014; O'Connell et al., 2018).

In the UK, students attending a street medics session, that is a voluntary session working with underserved populations, attended a focus groups discussing their career intentions. These students identified a change in their perspective of this patient group, appreciation for the care model, and an increase in their desire to work with that group following their experiences (Walsh et al., 2020).

2.3.5 Other medical specialities

In this review of all medical specialities, one further longitudinal qualitative paper was identified in the review of the literature, which pertained to medical students' intention to pursue a career in neurology. Gottleib-smith et al (2021) interviewed fifteen American medical students in their first year and then after a period of twelve months.

Over the course of a year, students identified an increased value of work life balance, attributed to stressors experienced during undergraduate training (Gottlieb-Smith et al., 2021). An increase in the personal importance of work life balance and concerns regarding family life may be of relevance to the attractiveness of General Practice as a career, as highlighted in section 2.4.1.

Students also discussed difficulties in making career decisions early on in their undergraduate training, feeling that their knowledge was limited. After a year at medical school, students felt more able to understanding clinical areas in which they were interested, and also identified that their career intentions may change with further clinical experience (Gottlieb-Smith et al., 2021).

Whilst these findings were in regards to a career in neurology, they offer some insight into thought processes of students, as they consider their career choice, and the impact of experiences at university upon these processes.

2.3.6 Summary

There is a lack of data surrounding medical students' intentions to follow a career in General Practice, and the changes to this intention as students' progress through their undergraduate education. Although the reviewed data surrounding underserved areas, rural medicine, psychiatry and neurology has offered some insights into experiences which may change a student's intention to pursue a particular career.

Most of the data currently available is in the form of questionnaires, either retrospective or longitudinal. Whilst the literature involving retrospective questionnaires, does not suffer from the loss of participants to follow up, it depends on the recollection of the student's intention in the months or years prior. There is also minimal data to explain the complexities of the changes in students career intentions.

As theorised in the research questions and objectives, this section of the literature review has highlighted the link between career intentions and perceptions. Walsh (2020), Cleland (2016) and Girasek (2011) touch upon perceptions of particular careers, which influence career intention. Perception and the development of perception appears to be a key step in the process of change of career intention. The literature surrounding perceptions of General Practice, and how experiences lead to the development of these perceptions, is explored in the following sections of this chapter.

2.4 Students Perceptions of General Practice as a Career

There is a body of existing work which focusses on understanding medical students' beliefs about General Practice as a career. The findings of these studies can be split into some broadly recurring concepts which are elaborated upon below:

2.4.1 Lifestyle of the General practitioner

The concept of lifestyle occurred frequently in the literature, and included two sub-concepts.

<u>Flexibility and family friendly nature of General Practice</u>

Flexibility of the career of General Practice, was often discussed in the literature in the context of the family friendly nature of the work, and the ability to achieve a good "work life balance" (Barber et al., 2018; Creed et al., 2010; Darnton et al., 2021).

Creed et al (2010) used questionnaire data to rank perceptions of medical specialities amongst Australian medical students, and students identified GP as the second most family friendly career, with Dermatology being first.

Barber et al (2018) analysed questionnaire data from 280 medical students in Oxford, UK, and identified a widely held belief that General Practice offered a positive work-life balance, and represented a "family friendly" career. However; in stark contrast to this, in free text answers, participants also identified working hours as being "brutal", a dichotomy that Barber et al were unable to explain within this work.

Students who personally felt a need for work life balance themselves identify as being attracted to work as a GP, and the ability to opt out of out of hours work was also identified as contributing to the positive work-life balance of the career (Edgcumbe et al., 2008; Kiolbassa et al., 2011; Koehler and McMenamin, 2016).

Female workforce

The perceived flexibility and work life balance of the career of the General Practitioner results in inevitable links to the female workforce, which is identified in the literature.

In a questionnaire of 519 Canadian medical students in their first two weeks of medical school identified that 23% of the female students questioned identified Family Medicine as their first choice of career, as opposed to 16% of male students ($P < 0.05$) (Wright et al., 2004). A similar preference amongst female students has been identified amongst medical students who are members of the Royal Dutch Medical Association (Heiligers, 2012) A further questionnaire study of first and fourth year medical students in the United Kingdom also identified that female students viewed General Practice more positively than male students, regardless of their stage of undergraduate training (Henderson et al., 2002).

There have been attempts to understand underpinning perceptions which result in this female positivity toward General Practice. Drinkwater et al (2008) identified the family aspirations of students as key in career decisions. Interviewed women showed an awareness of the conflict between work and home life, and discussed the sacrifice of

ambition for children, opposed to male interviewees, only one of whom raised this concept without prompting.

Reid and Alberti (2018) identified the pressure on women to choose General Practice, and the ideas of working as a GP as a lesser choice was raised by others, as career one had to choose if one wanted a family (Drinkwater et al., 2008).

Maiorova et al (2008) attempted to understand why despite the seeming positivity of females toward General Practice, there remained a shortage in the workforce in the Netherlands. They identified through questionnaire data that despite an initial preference among female medical students for General Practice, this reduced following graduation, although the reasons for this were not clearly identified.

Although this research highlights the variability between the Genders of a preference for a career in General Practice, the majority of this work uses questionnaire data, requesting participants to select from pre-written answers. The small amount of interview and free text data indicates an understanding that General Practice provides a more balanced work and family life, ideal for women who wish to raise a family, however this is not always seem in a positive light by female students. Indeed the choice of General Practice may be seen as a sacrifice for family as opposed to career aspirations (Drinkwater et al., 2008; Reid and Alberti, 2018).

2.4.2 Nature of General Practice work

Breadth of Knowledge needed to be a GP

The breadth of knowledge required to work as a General Practitioner is highlighted within a number of different contexts.

Barber et al (2018), Landstrom et al. (2014) and Kuikka et al (2012) identified the perception that General Practice involved seeing a variety of cases through both quantitative questionnaire and free text data. This breadth was seen by some students as a challenging and stimulating part of the job of the General Practitioner (Kuikka et al., 2012; Sahota et al., 2020), and identifying the GP as a "knowledgeable" practitioner (Kelly et al., 2012). However some students perceived that this breadth of knowledge was in the sacrifice of depth of knowledge (López-Roig et al., 2010; Rodríguez et al., 2012). Indeed, Lopez-Roig et al, in their focus groups of Spanish Medical students, identified a perception that *"if a family*

physician can fix a problem, then it should not be difficult to be fixed" (López-Roig et al., 2010, p.595).

Lack of intellectual stimulation

The concept of General practice work being repetitive and uninteresting is seemingly in stark contrast to the previously mentioned concept of "Breadth". This dichotomy is presented most strikingly within individual papers by Barber et al (2018), Kuikka et al (2012) and Lopez-Roig et al (2010). Students identified the cases seen by General Practitioners as *"superficial, repetitive and with lack of intellectual challenge"* (López-Roig et al., 2010, p.594). General Practice work is considered by some students as less interesting, and tedious, in part due to the frequency at which the General Practitioner is required to see patients with non-medical conditions (Barber et al., 2018; Edgcumbe et al., 2008; Kuikka et al., 2012).

The literature is not clear as to why students believe the General Practitioner sees a greater proportion of non-medical problems. Certainly, within the UK, the GP and A and E doctor are the only medical professionals who have direct access through the National Health Service. All other doctors require an initial referral through one of these sources. This free at the point of care, unlimited access to the public will undoubtedly result in a proportion of patients accessing medical care for problems which do not require medical input. The Kings Fund (Kings Fund, The, 2011) identified a number of contributing factors to this, such as a lack of access to nursing care, more complex patient needs, higher patient expectations and reduced desire to home treat self-limiting illness (Baird et al., 2016). It can be inferred that these problems may be being considered by students, however the published literature does not offer clarification of this link.

"Destination GP" (2017), a report from the Royal College of General Practitioners and the Medical school's council, surveyed 3680 medical students from the United Kingdom, and identified a widespread discourse that General Practice was not stimulating, nor fulfilling. Sahota et al (2020) identified the time limited decision making, and onward referral of complex problems as contributing to the lack of stimulation in this role. However, participants in Sahota et al's (2020) work also considered that factors such as managing uncertainly made General Practice more intellectually stimulating. Difference of opinion

and individual factors as to what makes a career "stimulating" are likely at play, however this is not further explored in Sahota et al's (2020) work.

Continuity of care

Students in Australia, Canada and the United Kingdom identified General Practice as offering a unique opportunity to manage and follow up patients and families (Kiolbassa et al., 2011; Koehler and McMenamin, 2016; Merrett et al., 2017; Rodríguez et al., 2015). The ability to see the success of ones interventions and improve on them if needed, and develop a long term relationship of trust was unanimously valued in focus groups of recently qualified UK doctors performed by Merrett et Al. (2017).

Conversely, one study identified continuity of care as a cause of trepidation. Resulting in more responsibility for the Doctor, and increasing patient demands (B-Lajoie and Carrier, 2012). Although, it is of note, that this paper used a mainly questionnaire data analysis, with some free text answers, which were used only to explain results from the pre-selected questionnaire data. The data provided was therefore somewhat superficial, and no further explanation as to why students were afraid of taking responsibility for the continuing care of a patient was identified.

High Administrative load

Although anecdotally Doctors of all specialties may consider the administrative workload of medicine to be high, Rodriguez et al (2012) identified this belief exclusively within the literature regarding General Practice. Students within their focus groups of Canadian Medical students perceived that this high administrative load was exclusive to the role of the Family Practitioner. It is not clear from this work as to how this perception has developed, nor why students consider General Practice to have a greater amount of paperwork than other specialities.

Necessity of "soft" skills

Reid and Alberti (2018), in their focus groups study of medical students at Newcastle University discussed the concept of General Practice being perceived as a career which required "softer" skills. Particular focus was placed on teaching of communication skills by General Practitioners, which students considered as less examinable and therefore less relevant to their training.

"By Choice not by chance" (Health Education England, 2016), also highlights this phenomenon. The paper discusses the effect of the formal curriculum on Medical Students, and identifies that "woolly" areas of the curriculum are taught within the General Practice sections of the curriculum. The paper indicates the need for teaching to be more reflective of the nature of General Practice work. It is however of note that this "grey" literature is produced by Health Education England, while offering a great deal of insight into perceptions of students, the producers of this paper aim to increase recruitment into General Practice, which must be taken into consideration when reviewing this literature.

Working in General Practice: Broad, repetitive and soft?

The literature highlights somewhat confused perceptions between students, as to what the work of the General Practitioner entails. There are perceptions amongst students that a broad range of skills and knowledge is needed, but that this work is also repetitive (Barber et al., 2018; Kuikka et al., 2012; López-Roig et al., 2010). This dichotomy is poorly explained, as is the process by which students have arrived at these understandings about General Practice.

"Soft" skills are also quoted in the literature (Health Education England, 2016; Reid and Alberti, 2018), although these are ill defined within the studies themselves. Although soft skills can include communication skills and empathy, the lack of clarity of these skills by the writers makes it difficult to gain a deeper understanding of this perception. Prevalence of "non-medical problems" (Barber et al., 2018; Edgcumbe et al., 2008; Kuikka et al., 2012) is similarly ill-defined.

The literature highlights a complex set of perceptions held by students as to what the work of the General Practitioner entails. Some of these may be founded on mis-perception or mis-understanding of the career. The existing literature does not offer an in depth understanding of the complexities or origins of these perceptions.

2.4.3 Political Climate

Beliefs Regarding pay

Students in the United Kingdom identified pay as making General Practice an attractive career, some even considering that GP's were overpaid for the work they performed

(Edgcumbe et al., 2008). Edgcumbe et al. do not elaborate as to where students believe these perceptions originate.

Conversely, in a questionnaire study of Canadian medical students, Morra et al (2009) identified that students underestimated the earnings of a General Practitioner by on average $10, 656, and believed that General Practitioners were underpaid for the work they performed. As students progressed further through their undergraduate studies, they were more likely to identify pay as an important factor in choosing a career (Morra et al., 2009).

In spite of the aforementioned misconceptions regarding pay, questionnaire data from Cleland et al (2016), in which 810 final year medical students in the UK stated their preferences for hypothetical training posts, identified that the highest value for students was placed on "good working conditions". In the study, these "good working conditions" were suggested to include amount of on call time and staffing levels. The authors suggest, through preference analysis, that students would be willing to accept earnings 32.28% lower than average, in exchange for an improvement in working conditions from "good" to "excellent" (Cleland et al., 2016)

Although between the UK and Canada perceptions of pay for General Practitioners are clearly different, and the literature is sparse, both countries do share a similarity in that there appears to be a misunderstanding of pay for General Practitioners, and these misconceptions may have an impact on students career choices (Edgcumbe et al., 2008; Morra et al., 2009). There are also questions to be asked over how impactful beliefs regarding pay may be on students eventual career decisions (Cleland et al., 2016).

Current Recruitment Crisis

The current recruitment crisis in the UK has been well documented in the introduction to this work, low numbers of applicants to GP training in recent years has resulted in many unfilled training posts in the UK, with the North East being particularly badly affected ("The General Practice (GP) National Recruitment Office" 2019). This has led to some UK Medical students feeling "pushed" into a career in General Practice, resulting in a further negative perception of the career (Health Education England, 2016; Nicholson et al., 2016).

This is not exclusively a British phenomenon, Mariolis et al (2007), in their questionnaire study of medical students in Greece, found that the prospect of guaranteed employment

was cited most by students considering General Practice, as their reason for choosing the speciality. However those who were not considering General Practice as a career were more likely to cite scientific interest as their reason for choosing a speciality (Mariolis et al., 2007). It is of note however that this questionnaire requested students to select from pre written answers, and only small numbers of respondents identified General Practice as a possible career. Similarly, to the United Kingdom, this prospect of guaranteed employment may therefore be a double-edged sword, reinforcing the perception of General Practice as a less interesting, practical choice of work, rather than a vocation.

Political Climate: Guaranteed employment and misunderstood pay

The research discussed above highlights two key points in students understanding of the political climate surrounding General Practice.

Firstly, pay for working as a General Practitioner is either under or overestimated by students (Edgcumbe et al., 2008; Morra et al., 2009). The concept that the General Practitioner is "overpaid" for their work (Edgcumbe et al., 2008), implies a belief on the part of the student that the General Practitioners work is of less value than that of the hospital consultant, although this is not adequately explored in the current research. As has previously been discussed, this belief regarding "overpayment" has little basis in fact, when considered alongside the available GP earnings data. This calls into question the origins of this perception, again, something which is not explored in the currently available literature.

When combined with the perceptions of students that General Practice offers a "guaranteed job" (Mariolis et al., 2007), the question is raised as to why are students not choosing General Practice. If the perception of the student is that this role provides guaranteed employment, with good pay, why is this not an attractive prospective career? This is touched upon in the literature which highlights "scientific interest" as a reason for entering other specialities (Mariolis et al., 2007). Perhaps the student identifies other specialities as those which one chooses due to interest, or other drives, and General Practice as a career to be chosen for practical, monetary reasons. This is not elaborated upon within the research, but poses an interesting question for this work.

2.4.4 Non-Academic Speciality

Lack of Academic or Research opportunities

The lack of academic or research opportunities within general practice was referred to in the literature, although evidence surrounding this was limited. There was minimal clarity to the concept of the "academic" GP, possibly due to the lack of General Practitioners in these roles, only 6.5% of senior clinical academics are General Practitioners (Health Education England, 2016).

Students did identify that there were "no" chances to do research as a General Practitioner, and also that Academic achievements such as publications were not positively recognised when applying to become a General Practitioner (Collier, 2018; Health Education England, 2016).

Sahota et al (2020) explore this perception further in their focus group study; participants identified that "academic family medicine" was not a term they had come across, and even questioned how a clinician would be able to do research whilst working as a GP. Participants in this study were more familiar with GPs as teachers, rather than engaging in research, but identified that this may be due to a lack of visible academic GP's, and were ultimately curious about the possibilities of an academic General Practice role.

Being Paid to teach

In the "By choice, not by chance" report (Health Education England, 2016), a misunderstanding from students was identified relating to renumeration for teaching. As funding for undergraduate education is paid directly to the hospital trusts, students perceived that Hospital Doctors volunteered to teach. The authors of "By choice not, not by chance" identify that this may lead to the perception that GPs' teach for a monetary return, rather than the seemingly altruistic teaching of the hospital doctor (Health Education England, 2016)

Non-academic speciality: A Poorly understood concept

Unfortunately only three pieces of literature touched upon this concept of General Practice as a non-academic speciality, and the most elaboration of this was provided by the "By choice, not by chance" Report (Health Education England, 2016) It may be that this concept has simply not been raised by any students in the remainder of the research reviewed, or, it may be the case that the concept of the academic GP was not directly identified and discussed in the other literature.

The literature from Health Education England does raise some questions. Health Education England are stakeholders in the future of GP recruitment, and the successful training and employment of future General Practitioners. The methodology of this report is less clear than would be expected from a peer reviewed study. Although meetings with students from five universities are identified as informing the narrative of the report, the structure of these meetings, and analysis of the findings is not laid out clearly (Health Education England, 2016).

I must conclude that further evidence is needed to elaborate upon the concepts discussed above. Although these do raise interesting starting points to be elaborated upon through this work.

2.4.5 Prestige

The concept of General Practice being of lower status, and carrying less prestige than other careers is repeated in the literature.

In their focus group data of Medical Students in the UK, Hogg et al (2008) identified that General Practice had a lower prestige compared to hospital medicine, resulting in a feeling that the medical culture was opposed to them becoming a General Practitioner. This belief was mirrored in the Canadian and Spanish literature, students felt that General Practice was devalued by society and academics (Rodríguez et al., 2015), leading students to feel it was difficult for them to justify a preference for family medicine (López-Roig et al., 2010; Rodríguez et al., 2015).

In Koehler and McMenamin's survey Australian Medical students, lack of prestige was listed as the third most frequently stated disadvantage of General Practice, in students who had participated in more than 80 hours of General Practice placement (Koehler and McMenamin, 2016). This implies that these rotations have an impact on students' perceptions of the low prestige of General Practice.

Rodriguez et al (2015) performed focus groups at medical schools in Canada, France, Spain and the UK. This work summarises that General Practice was held in high prestige in the United Kingdom, as opposed to Canada, France and Spain where it was devalued. Interestingly, the focus group data in this study identifies a students as feeling that General Practice was devalued, and conversely a quote from a Hospital Consultant that general

practice was “the top of the hierarchy” (Rodríguez et al., 2015). The source of this consultant quote is unclear, as the methodology states that focus groups were only performed on medical students. Also of interest, in their summary of General Practice in each country, the authors state that training posts were oversubscribed in the United Kingdom, and undersubscribed in other countries(Rodríguez et al., 2015). The data analysed in this paper was collected in 2007-2009, and the paper itself published in 2015, it is therefore unclear as to which time period this statement refers to and there certainly underfilled GP training posts reported in the United Kingdom in 2015 (Rimmer, 2015a). Although students did raise points which were in keeping with much of the other research, this unclear background and methodology calls into question the robustness of this particular paper.

This lack of prestige was identified by Scott et al (2007) as leading to a perception of General Practice as a secondary career choice, a backup career for those who did not get their first speciality choice. In this study however, lack of prestige was not identified by students who had chosen Family Medicine as their first choice of career (Scott et al., 2007).

In spite of the lack of prestige of General Practice highlighted by the much of the literature, there is no proven link between this and reduced attractiveness of General Practice as a career. Students found this reduced prestige unfounded, and indeed considered, although there was increased awareness of this apparent lower prestige, this had limited impact upon their own perception than their experiences on placement (Barber et al., 2018; Maiorova et al., 2008).

Despite the majority of the literature reviewed here identifying that General Practice is perceived to be of a lower prestige than other specialities, none of the papers reviewed identified or defined the concept of prestige. The understanding of this as a concept therefore does have a limited value. The concept of “prestige” of General Practice is being raised by students and researchers alike, however without knowledge of the participant and researchers understanding of prestige, a clear understanding of this perception is not possible.

2.5 The development of student’s perceptions

2.5.1 A note on psychiatry

The crux of this work, as can be seen in the research questions, focusses on experiences which impact student's perceptions of General Practice. The literature is somewhat sparse in relation to General Practice, and as such papers relating to psychiatry were reviewed, in order to gain an insight into the development of perceptions of both of these careers.

Although this work does not focus on students perceptions of psychiatry, In many ways students perceptions mirror those of General Practice, the literature highlights concepts of low prestige, low pay, and low academic challenge, as well as the family friendly nature of a career in Psychiatry (Budd et al., 2011; Lyons and Janca, 2015; Volpe et al., 2013; Wang et al., 2013; Wear and Skillicorn, 2009). Psychiatry does however have some unique challenges, which are not seen in General Practice, such as perceived lack of effective treatments, and associated stigma attached to disorders of mental health (Curtis-Barton and Eagles, 2011; Lampe et al., 2010; Lyons and Janca, 2015; Malhi et al., 2011).

These similarities between recruitment and perceptions of General Practice and Psychiatry as careers have led to my use of papers relating to Psychiatry, in order to gain understanding of how student's perceptions develop of these careers, both of which are currently suffering low recruitment.

2.5.2 University Experiences

Impact of placements

A positive change in perceptions and/or career intention was identified following a placement in General Practice or psychiatry in studies from the United Kingdom, Portugal, France and Switzerland (Archer et al., 2017; Budd et al., 2011; Codsi et al., 2019; Meli et al., 2014; Mortlock et al., 2017; Shah et al., 2021; Xavier and Almeida, 2010). Mortlock et al (2017) identified that percentage change in attitude toward psychiatry was significantly higher in those students who had undertaken a clinical placement, and Manassis et al (2006) identify that students with a low interest in Psychiatry ranked clinical placement as most influential upon their interest in the career.

The reasons for this positive change are less well identified. Meli et Al (2014) identified a correlation between students satisfaction with a placement, and therefore, their desire to be a GP, and the students perception of the doctor in their placement being satisfied with their work. The authors highlight that this relationship is complex, but do not offer any

hypotheses to explain this relationship. Arshad et al (2021) and Ives et al (2019) suggest that readiness for a future career following a placement has a positive influence.

Following a placement in General Practice, it is suggested that the motivating influence of factors such as income and career prospects were diminished in favour of intrinsic factors, such as variety of patient cases and desire to work with chronically unwell patients (Strasser, 2016). However in a questionnaire of Australian Medical students, there was found to be no statistically significant difference between the number of students who thought psychiatry had "Low prestige" after their placement, compared to before (Lyons and Janca, 2015). Both studies when considered together imply that although the perception of "low prestige" in these two careers does not change following a placement, the impact upon the student of this perception is lessened. However due to the quantitative nature of both of these studies, both of which used Likert scales to assess if respondents agreed or disagreed with statements, there is no suggestion as to how or why this occurs.

A small number of qualitative studies have offered explanations as to the impact a placement has upon students' perceptions. UK Students report that positive experiences on placement increased enthusiasm for the speciality, and resulted in their negative preconceptions being diminished (Edgcumbe et al., 2008), and reinforces Maiorova et al.'s (2008) findings of the reduced influence of these negative perceptions. Students describe placements as giving an experience of the varied and challenging role of General practice, and those students who had a preference for another speciality still found this an "eye opening" experience which gave a wider view of the career (Firth and Wass, 2007; Hogg et al., 2008; Scott et al., 2007).

One paper however does suggest a negative consequence of clinical placement. In their study of Australian medical students following a psychiatry rotation, Lampe et al. (2010) identified that negative views of Psychiatry appeared to be influenced by a poor placement in the speciality. This included perceptions that the work was draining, and the system was inadequate for patient's needs. This does highlight a requirement that good quality, not simply a large quantity of placements are required in order to result in the positive impact on perceptions highlighted above.

Early clinical experience in General Practice and Psychiatry have been highlighted in the literature as particularly impactful. Placements early in the curriculum can raise students

interest in these specialities, as well as having positive effects on confidence and motivation (Jordan et al., 2003; Strasser, 2016). Indeed, limited experience can lead to uncertainly regarding these careers, particularly in light of the other factors discussed in this chapter, meaning early clinical placements enabled students to consider these careers in an informed manner (Brown et al., 2016).

Jordan et al. (Jordan et al., 2003), through semi structured interviews, explored the pathways through which students reach a decision to choose GP. They suggest that those students who choose family medicine early, often following an early clinical experience, go through ongoing validation of their decision throughout their training, mirroring the development of perceptions explored early in this chapter. Uncertain students spent their early medical student years exploring and excluding careers, before settling on General practice, and the final group of students may arrive at their career decision through re-evaluation of a previous career decision. Clinical experience is instrumental on all of these "paths" to family medicine, but early clinical experience is particularly valuable in the last two groups (Jordan et al., 2003) (figure 5).

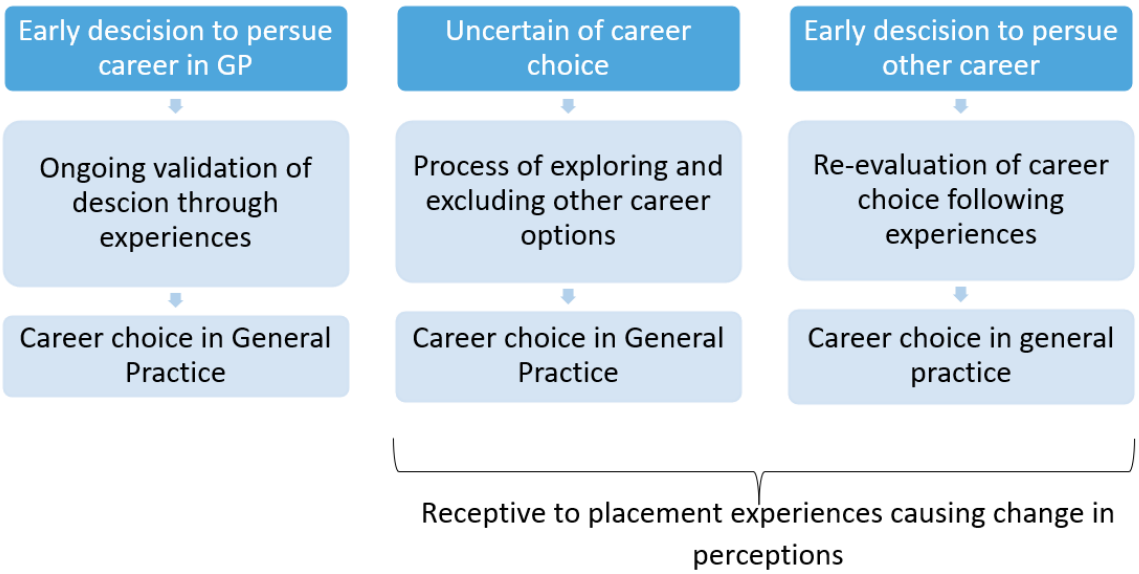


Figure 5: The paths toward choosing a career in General Practice (adapted from Jordan et al., 2003)

Studies in the UK, Ireland and Australia, have explored the concept of longitudinal placements or clerkships, particularly following implementation of these placements at the Author's institutions. These longitudinal placements are a relatively new concept in medical

training, and involve a spending a prolonged period of time in a General practice rotation, usually longer than six months during which the student can be immersed in practice life, and take part in the care of patients with chronic conditions (McKinley et al., 2018).

Students at Keele University spend 15 weeks in a General Practice rotation, with additional educational experiences such as cluster teaching sessions. Evaluation of this longer rotation has identified that students feel particularly well prepared for practice as a Junior Doctors, and students are able to develop therapeutic relationships with patients who have chronic health conditions. The authors do discuss this in the context of Keele's high percentage of students choosing a career in General Practice, although the evaluation itself does not offer a link between these (McKinley et al., 2018).

Mackie and Alberti (2021) interviewed five students at Newcastle university who found they had increased their preference for a career in GP following a longitudinal placement. These students found that a longitudinal placement enabled them to increase their self-confidence through integrating into the workplace environment. These placements enabled direct comparison between primary and secondary care, and reflection between the two workplaces (Mackie and Alberti, 2021). This study also considered motivation to be a General Practitioner, and the authors theorise that this motivation may develop through the enjoyment of placement (Mackie and Alberti,2021). Although the data from this work fell short of being able to fully explore this link.

Mackie and Alberti also identified that through spending significant time in General Practice, students began to challenge the negative perceptions of the speciality they had encountered elsewhere (Mackie and Alberti, 2021): This finding must however be considered in the context of the populations interviewed; purposively sampled students who found that a longitudinal placement had positively influenced there perception of General Practice. Hence, by definition this population must have overcome some of their negative perceptions of the career.

These findings have been mirrored in other institutions which have implemented a longitudinal placement. A quantitative study of students at Limerick University identified that students were 72% more likely to pursue a career in General Practice after a longitudinal clerkship placement (O'Donoghue et al., 2015), and a literature review of longitudinal placements by Walters et al.(2012) suggests that following these placements,

students have a greater recognition of the roles of healthcare professionals, are more confident and more actively contribute to the care of their patients for the duration of the placement.

Although these papers do highlight many positive consequences of these placements, and offer insights into curriculum differences between institutions which may result in differences in perceptions across these universities, it is of note that many of these papers are evaluations of individual University curricula.

Clinical Role models

The opportunity to observe a role model, particularly early in medical school has been identified as being impactful on career choice, and the students shaping of their own professional identity (Arshad et al., 2021; Jordan et al., 2003; Wilson et al., 2013). In "Destination GP" (2017), 81% of 3680 students felt that that GP's on placement had a most influence on their own perception of GP. Students perceptions have been identified as influenced by discussion with clinical role models, and the extent to which these role models appeared to enjoy their work in all specialities, not just General Practice or Psychiatry (Pianosi et al., 2016).

In their focus groups of American medical students, Wear and Skillcorn (2009) identified "good" role models as those that gave attention to students, providing them with feedback and including them as members of the team. Conversely "negative" role models adopted more of a "shadowing" approach, only allowing students to watch them work (Wear and Skillicorn, 2009). Whilst insightful into the factor's students value in a role model, these focus groups do not offer explanation as to how these role models influence student perceptions. Indeed, enthusiastic clinical teachers have been associated with an increase in positive views of psychiatry (Lampe et al., 2010).

In their questionnaire survey of students at seven UK medical schools Ibrahim et al (2014) identified that career choices of students are influenced by a number of perceptions which are fixed and slow to change, such as the perception of family life. However the presence of role models was identified as a modifiable factor influencing career intention (Ibrahim et al., 2014). Again, however, this quantitative study did not offer a link as to how these role models may change students' perceptions. Also, of note in this quantitative study, there

was a low response rate of only 12%, and students were recruited from Medical Schools only London, Bristol and Oxford. Although these medical schools do show some variation, for example in the percentage of students who choose to pursue a career in General Practice (*F2 Career destination report*, 2018), their location in affluent areas in the south of England, may mean the generalisability of these findings are limited.

Gondhalekar et al. (2021) explored the impact of clinical role models through a GP mentoring programme at University College London. 25 GP trainees were paired with medical students as part of this mentorship programme, and the impact of this was evaluated in focus groups and semi structured interviews. The study found the students considered their mentors approachable, and inspired them toward a career in General Practice, particularly considering that they were relatable due to their proximity in age (Gondhalekar et al., 2021). Although the negative perception of GP as a "back up" career did not change, students were more able to see positive aspects of General Practice (Gondhalekar et al., 2021). This study does suggest that there is difficulty in seeing the GP tutor as a "role model", with the implication that the student is less able to find such tutors relatable.

Quality clinical teaching

Somewhat linked to the presence of clinical role models and time spent on placement, is the concept of quality clinical teaching experienced by students. It has been identified by Alberti et al. (2017) that there is a weak correlation between number of "authentic" sessions spent in General Practice in UK Medical Schools, and the percentage of students that go on to a career in General Practice following F2. An "authentic" session was classified as a clinical session, rather than one in a classroom, in which there was patient contact, and therefore may include clinical shadowing sessions, joint surgeries, or teaching sessions during which there was a patient present. Although this work does clearly show a positive association between time spent in General Practice and likelihood of choosing a career in GP, it is not completely clear as to the impact of different types of "authentic" GP teaching. For example, if time spent in a parallel surgery, or being observed, was of more value than simply shadowing a GP.

Quality and quantity of Psychiatry teaching in medical school has been linked to a choice of a career in psychiatry, particularly small group teaching (Andlauer et al., 2013). Interestingly

however, those students who already had an interest in a career in psychiatry rated their teaching more highly than those who did not (Andlauer et al., 2013). The literature around General Practice does not explore this concept, but this research around psychiatry may imply that students who have a prior interest in General practice, may be more positively inclined towards teaching in that area. This also reflects Jordan et. Al (2003) in their aforementioned theory of ongoing validation in student who has already made their career choice of General practice (see figure 5).

Clinical teaching which offers responsibility for the supervised diagnosis and management of a patient is seen by students as "empowering", offering a level of responsibility which is not offered in a hospital placement(Health Education England, 2016). However not all practices offer this level of quality placement, for a number of reasons including cost and teacher availability (Health Education England, 2016). Although these two papers do not link these positive teaching experiences to a change in perception, they do offer insight into teaching experiences which students find valuable and, it is implied, positive.

Lectures

A number of concepts around lectures and the formal curriculum are raised in "By Choice not by Chance", a report from Health Education England (2016). The report identifies, through focus group and interviews with students, a lack of visibility of GPs as lecturers. Those lectures which are given by GP's often focus on what students see as softer skills, such as communication, rather than scientific, knowledge-based topics. It is implied therefore, that this leads to a perception that the role of the GP as a "softer" role, as has already been discussed in this chapter.

The lecture theatre may also be used to "market recruitment", with the message that more General Practitioners are needed being "rammed down their (student's) throats". Students do not appreciate this feeling of being forced into a speciality, and feel that they would prefer to make a measured choice based on their experiences (Health Education England, 2016).

Special interest extra-curricular groups

A number of institutions offer clubs or societies for those who are considering a career in family medicine.

The Family Medicine Club at the University of Sasktchewan has provided students with informal lectures around the topic of family medicine, and workshops during which clinical skills valuable to the speciality can be learned. Students described an increase in their understanding of Family Medicine through attendance at the club, and felt that their doubts were assuaged and decision to pursue Family Medicine reinforced (McKee et al., 2007).

In focus groups, students at the University of Toronto described in particular the role that their *Interest group in Family Medicine* had in challenging negative comments and denigration of Family Medicine, a topic which is covered in more detail later in this chapter (Kerr et al., 2008).

Those students who did not feel that their perception of GP or Psychiatry was improved following attendance at one of these groups explained that their intention was already to pursue a career in GP or Psychiatry, and therefore the group had not changed their perceptions (McKee et al., 2007). Those who had no intention of pursuing a career in GP or Psychiatry still felt that these groups provided students with a greater knowledge of the specialities, and in some cases led them to seek further educational experiences in those areas (Kerr et al., 2008).

There was no evidence from the papers reviewed that attendance at a group or club had a negative impact on students' perceptions. However, there is clear impact of selection bias within these studies, as students who attended such groups are by their nature, more likely to be those who are considering these careers.

Additional Optional Placements

Many institutions give students the opportunity to select their own Student Selected Component or Elective. During which the student may choose a clinical placement which suits their individual learning needs.

The literature surrounding Additional Optional Placements was sparse, quantitative, and only related to Psychiatry. In a questionnaire study of 502 students from two of the three Medical Students in Singapore, Seow et al. (2018) identified an association between attending a Psychiatry Elective and choosing Psychiatry as a Career. A similar association was found in a questionnaire study of Canadian Medical Students, however there was a variation in the strength of this association between Medical Schools (Manassis et al., 2006).

Similarly, to the data regarding extra-curricular interest groups, there is likely an element of selection bias to the data provided in these studies. Students who choose an Elective in Psychiatry are likely to be those who have a pre-existing positive perception of the speciality, and therefore more likely to consider these for their future careers.

The Hidden Curriculum

The concept of the hidden curriculum has been widely discussed with some disagreement over the last sixty years (Gaufberg et al., 2010). For the purposes of this literature review, it is taken to mean the implied meanings and subliminal messages that occur through interactions students have with lecturers and peers, and which they take from the structure of their medical education, for example, time spent in particular rotations (Gaufberg et al., 2010; Hafler et al., 2011; Wear and Skillicorn, 2009).

Although many of the other concepts discussed in this review could be considered to be part of the hidden curriculum, only three of the reviewed papers discuss this explicitly. In their focus groups of students in Ohio, Wear and Skillcorn (2009) explored students explored students beliefs and experiences of the Hidden Curriculum with regards to Psychiatry. Students particularly identified that their placements instilled into them a sense of the importance of intuition as opposed to textbook learning. Often the physician would have a very different impression of the patient to themselves, based on their prior experiences. While these "morsels" of realistic advice were valued, it was noted by the students that this was not of use for examinations and their progression through medical school (Wear and Skillicorn, 2009). The authors stop short of drawing any links between this and other existing beliefs regarding psychiatry, but consideration needs to be given as to what message this gives to students regarding the importance of psychiatry, and its academic value, when considering how they will progress through their medical training.

Reid and Alberti (2018), in their focus group study, identified that students perceived messages regarding the recruitment drive to General Practice through the hidden curriculum. And that this had a negative impact on their desire to follow this career path, through a desire to break expectations, and a wish not to join a speciality in difficulty. This study also highlighted the hidden curriculum aspect of the previously discussed concepts of teaching and "softer skills". Participants in these focus groups elaborated that the focus on

the aforementioned “softer skills” reinforced the perception of General Practice as an easier career choice.

Whilst the “By Choice, not by chance” (Health Education England, 2016) report mainly focusses its discussions on the Hidden Curriculum around the concept of denigration, which is discussed in more detail below, the report summarises this concept with discussion of Peninsula medical schools teaching of the Hidden curriculum. At this site students participate in a small group teaching session where they are encouraged to reflect upon the literature surrounding the Hidden Curriculum, and how the Hidden Curriculum within their university may impact upon them (Neve and Collett, 2018). Health Education England suggests that such teaching empowers students to choose the impact the Hidden Curriculum has upon them, and may encourage faculty to consider how their teaching and practice has an impact upon student perceptions (Health Education England, 2016).

It is of note that the concept of teaching on the hidden curriculum does seem in conflict with the concept of the hidden curriculum itself. Whilst this is not the focus of this work, it is suggested in the literature that this teaching empowers students to understand the messages they may be receiving from the hidden curriculum (Health Education England, 2016; Neve and Collett, 2018), although further work is needed to understand the impact these sessions may have on student perceptions.

Denigration

The concept of denigration has begun to emerge from the research over the last ten years, resulting in the term BASH; Badmouthing, attitudes and stigmatisation in healthcare, being coined (Ajaz et al., 2016).

Psychiatry and General Practice have been found to attract the highest levels of denigration, although students themselves report making derogatory comments more frequently about surgical specialities (Ajaz et al., 2016) Denigration of General Practice occurs from multiple sources, including doctors, students and nursing staff. And interestingly a number of negative comments were sourced from General Practitioners themselves (Ajaz et al., 2016; Alberti et al., 2017a; “Destination GP,” 2017).

Destination GP (2017), highlights the pervasive sharing of negative perceptions within the medical student community. 76% of students surveyed believed their peers held negative

perceptions of General Practice, and 35% indicated that their peers were most influential on their own perceptions. Interestingly, this paper also highlights a progression of negativity towards General Practice, with 64% of first year students believing there is a negative association with General Practice, increasing to 84% by third year. Whilst denigration may form part of this progressive negative association, this paper is not clear on the factors influencing this, although it is implied that these may be found in the university setting.

The denigration of these specialties has been found to consolidate the previous negative experiences of students, to confirm students pre-existing negative perceptions. However there is no consensus within the literature of the overall impact this denigration has on changing the perception of the medical student (Edgcumbe et al., 2008; Health Education England, 2016; Hogg et al., 2008; Pianosi et al., 2016; Scott et al., 2007).

Universities: Stakeholders in the Future of GP

As can be seen above, there is a focus of the literature on university factors which may impact on perceptions of General practice. When considering the political climate of recent years, this is understandable. General Practice forward view (NHS England, 2016) introduced a target of 50% of graduates to enter General Practice, making universities stakeholders in the future of GP. As all of the above literature is produced either in association with universities, or through government agencies who are also stakeholders in the future of General Practice, a focus on university factors, which are changeable on an institutional level to improve recruitment, is to be expected.

Much of the above reviewed data is also limited to one site. Providing useful evaluations of university factors at that site, but meaning that comparison of institutional factors between sites is limited.

The above data does highlight the importance of quality University Placements, teaching, role models and extra-curricular groups on students' perception of General Practice. But consideration must also be given to other aspects of the life of the student, which has an impact on their perception of GP.

2.5.3 Experiences outside of university

Pre-university courses

Curtis et al. (2008) are unique in the literature in their evaluation of the impact of a short course in Primary Care for A-level students prior to Medical School. The course ran for five, two-hour sessions, during which students were able to meet patients, have teaching on chronic illness, discussions on medical ethics and receive practical advice regarding applications to medical school.

The course offered an early opportunity to experience some of the concepts discussed earlier in this chapter, such as role-modelling and quality teaching. It particularly offered students insight into the working of General practice, one student identified that a career in General Practice was their ultimate reason for becoming a doctor (Curtis et al., 2008).

Although based on the experiences of only 11 students, this paper reinforces other work which has identified the difficulty in gaining work experience in General Practice (Health Education England, 2016). This pre-university experience offers many of the positives identified in university clinical placements, and suggests that positive perceptions can begin to be influenced prior to the University experience.

Family and Friends

Having a General Practitioner amongst family and friends has been identified as a positive influence upon GP perceptions and desire to follow a career in General Practice (Deutsch et al., 2015) Conversely, in psychiatry, up to a third of students felt that their family and friends would discourage them from this career, although the reasons for this are not clearly explained (Lyons and Janca, 2015). In psychiatry an association has been identified between a history of familial mental illness and a choice for a career in psychiatry (Andlauer et al., 2013). The cause for this association is not explored within the literature. Speculatively, role modelling of the psychiatrist, or a desire to elicit the change the student has seen in their loved one may be of relevance, and impact their desire to follow this career path.

Pianosi et al (2016) go some way towards an explanation of the impact friends and family have on career intentions. They identify that the opinions of friends and family were influenced by how they student behaved at home during their clinical rotations, and how they felt the student would best fit into a career. Students felt that they had to consider their families when making career choices, which implies that there is value place upon these opinions (Pianosi et al., 2016).

Media

There is a minimal amount of literature referring to the influence of the media upon medical students' perceptions of General Practice. Students prior to clinical placement may use fictional television medical programmes to form part of their understanding as to what a doctor does (Wilson et al., 2013). Such programmes reinforced to students perceptions that GP's spent their time "chatting", as opposed to programmes such as *casualty*, which showed other specialities as exciting and dramatic (Firth and Wass, 2007).

Factual television programming and newspapers also had an impact on students perceptions, with news stories portraying General Practice as an "easy life", and coverage of cases such as Harold Shipman portraying General Practice in a particularly bad light (Firth and Wass, 2007).

Psychiatry suffers with somewhat unique difficulties with media portrayal. In one study, students felt that media role model Psychiatrists were limited (Brown et al., 2016), however 58% of Canadian medical students reported movies as being influential to their perceptions of psychiatry, with a further 39% citing books, and 37% television (Bogie et al., 2018). Indeed, the fictional media portrayals of Psychiatrists have led to the development of a classification system of movie psychiatrists, identifying them within the "dippy", "wonderful" or "devil" stereotypes (Bogie et al., 2018).

The above two papers discussing psychiatry within the media do seem to be in conflict, however when we consider that Bogie et al. (2018) exclusively discuss the fictional media psychiatrist, it may be understandable that these are not seen as role-models by the actual students themselves.

Of note, there was no discussion of the impact of social media in any of the papers reviewed, although there is a suggestion that medical school websites, with a higher focus on secondary care, may also impact upon perceptions (Health Education England, 2016).

Personal interactions with a General Practitioner

Many medical students will have needed to visit a General Practitioner during their childhood, prior to commencing medical school. Indeed, these experiences may represent the students first interaction with a GP, being the building blocks for the student's

perception what it is to be a doctor. The care shown by a GP early in life enabled a development of trust and respect for the doctor and the role (Jordan et al., 2003).

More negatively, some students identified that the problems they visited their General Practitioner with were usually mundane. And as such this produced a perception of the work of the GP as "mundane" and "boring" (Firth and Wass, 2007; Health Education England, 2016). Gradate entry students may therefore be less likely to hold this perception, having had more life experience, and potentially more contact with General Practice in their personal life or with the needs of family members. Some graduate students may even have chosen a career in General Practice before commencing medical school (Health Education England, 2016).

In rural areas, particularly in Canada, the family doctor was seen as an influential member of the community, someone who tied a rural community together, and as such had a positive impact on students growing up in these areas (Scott et al., 2007).

Experiences outside of University: Poorly understood in the development of perceptions

As discussed previously, less of the literature focusses on the development of student's perceptions outside of university. Given that experiences outside of university are less able to be changed by those institutions, this selective focus is understandable.

However these experiences with the media, family and friends, and personal visits to the GP represent the first contacts students will have had with a General Practitioner, and form the foundation of their perceptions, upon which future experiences are stacked (Johns and Saks, 2005). Further knowledge of these early experiences, and the perceptions hinged upon them, is required, as without this understanding of the foundations of prior experience, the impact of university experiences cannot be fully understood.

2.6 Viewing the literature through the frontstage, backstage and offstage lens

Sinclair's frontstage, backstage and offstage model offers a lens through which the origins of perceptions can be viewed (Goffman, 1990; Sinclair, 1997).

Sinclair theorises that the life of the medical student fits into three distinct categories, as medical training itself is multi-factorial, and the development of the doctor depends more on simply the manifest curriculum. The frontstage involves the University world in which the student is observed and is conscious of their audience, this may include the official

Manifest Curriculum, Lectures, Ward rounds, or the unofficial, such as the Rugby field, or theatrical performance groups. The backstage often includes aspects of life where the student prepares for the frontstage, such as the library, or the student bar. It can also include the students experiences of the Hidden Curriculum (Goffman, 1990; Sinclair, 1997).

Sinclair also identifies that the Lay world, or offstage has an impact on the development of the student as a doctor. This may include Television, Social media, or events participated in outside of the boundaries of the institution (Goffman, 1990; Sinclair, 1997). A key component of Sinclair's theory is that of audience. The frontstage and backstage concepts, similar in that they both represent aspects of university life, differ in that the backstage occurs in the environment in which the student is not required to "perform". Sinclair's theory acknowledges that there is an element of stagecraft to the role of the medical student, the student acts differently in front of their peers or seniors, fulfilling the role of the medical student, and developing an identity as the professional they wish to be.

This theory offers a framework to assist in understanding of the concepts raised in this literature review. Table 2 summarises how the aforementioned experiences contributing to the development of perceptions can be split into Sinclair's frontstage, backstage and offstage concepts.

	Definition (Sinclair, 1997)	**Medical Student experiences** as identified from literature review
Frontstage	The stage on which students appear when attending lectures, exams, sports teams and placement. Students are aware of the need to present themselves to their "audience"	Placements Clinical role models Quality clinical teaching Lectures Special interest extracurricular groups* Optional placements (for example student selected components) Denigration*
Backstage	Aspects of the student's life, whilst still related to the	Denigration* The hidden curriculum*

	institution, without and "audience". Such as the library.	
Offstage	The Lay world, aside from university life.	Courses taken prior to starting university* Family and friends The media Personal interactions with own GP
• *Experiences for which there is a query over assignment to stage. See 2.6.1/2.6.2/2.6.3*		

Table 2: Summary of literature review findings as viewed through the frontstage, backstage and offstage lens (adapted from Sinclair, 1997, original terminology from Goffman, 1990).

2.6.1 Frontstage

The frontstage may well be the first thing that comes to mind when considering Student's experiences at university, particularly as it contains the manifest curriculum. As has previously been discussed the key distinguishing feature of the frontstage is the presence of the "audience" (Goffman, 1990; Sinclair, 1997). This theory does depend upon the assumption that the presence of an audience has an impact and relevance to the experiences of students. Anecdotally, one can often think of how one behaves differently in front of others, as opposed to in private. And these "audience" members are likely to be those that the student would wish to appease, such as lecturers, doctors, and other students.

In many of the frontstage experiences highlighted in *Fig.2*, the audience consists of clinical seniors. In lectures, placements and clinical teaching, the student has direct contact with a (usually clinical) senior, and so may feel the need to "act" the part of the doctor-to-be. This is not a concept which is explored within the currently available literature, but requires consideration.

The concept of lower prestige of the General Practitioner has been discussed extensively in this chapter (see 2.4.5), and this may have a bearing when considering the "audience" aspect of the frontstage. Does the presence of a (perceived) lower prestige clinical senior have a bearing on the meaning a student takes from a clinical experience? How does this

compare to frontstage experiences where the "audience" is from a perceived higher prestige speciality? This has unfortunately not been explored within the literature at the present time.

Whilst Sinclair (1997) does not explicitly include other students as "the audience", this requires consideration. A student may not feel the need to "perform", in front of students in their friendship group, but may feel this need when in a larger group of other students whom they know less well.

This has a bearing on experiences such as special interest extracurricular groups, which may not fit into the same "stage" for each student involved: A student may feel more or less free to present their true self in these environments, dependant on their relationship with those around them. If denigration of General Practice occurred in this environment, for example, a student who disagrees with this denigration may act in one of two ways. They may present their true opinion of General Practice, involving disagreeing with peers. Or they may agree with the denigration, in order to appease their fellow students. In both scenarios, the presence of the audience has caused the student to consider their actions in the context of those around them. By considering these scenarios, we can see how the presence of an audience may change a student's experience, and therefore may have an impact on the meaning they take from these experiences.

Ultimately, the literature does not currently explore how the presence of an audience may change an experience, and may lead to a change in perception. However, the use of this framework has led me to consider the role the audience may take in the development of student's perceptions of General Practice.

2.6.2 Backstage

By Sinclair's (1997) definition, the backstage consists of those parts of university life in which the student prepares for the frontstage, such as the University Bar, or studying in the library, without the consideration of an audience.

There is a question as to whether the Hidden Curriculum and denigration belong in the category of the "backstage" of medical education at all. Although Sinclair categorises the Hidden Curriculum as being part of the backstage of medical education, it could be considered to be in the frontstage also (Sinclair, 1997). For example, a student may take an

unintended meaning based on their own interaction, when alone with course preparation materials, or when working on a hospital ward away from the frontstage "audience". Or they may take meaning from an implied attitude from a senior colleague during a lecture or placement. Whilst both of these experiences may be considered to be a part of the hidden curriculum, lectures and placements, where the student takes on the "role" of the student doctor in front of others, is considered to be a part of the frontstage.

Similarly, denigration may occur clearly, during a lecture or a placement, or may be experienced when reading course materials at home. Of note from *Fig.2*, these two concepts for which the categorisation is not clear, are the only two backstage concepts identified in the literature. The reasoning for this is twofold. It may be that backstage concepts are simply not adequately explored within the current literature, either they are not raised by students, or are not directly part of questioning within the research. It also may be that these two categories are less well differentiated than Sinclair suggests, and these concepts transcend the categorisations of frontstage and backstage.

2.6.3 Offstage

When compared to the frontstage, there are significantly fewer offstage concepts discussed in the existing literature. The offstage, that is experiences which occur in the lay-world, away from university, represents a large proportion of the life of the student. Most students will have commenced University at eighteen years old, as well as spending holiday time away from university. When considering Johns and Saks development of perceptions (2005), this period of eighteen years has given ample time for the student to experience, and begin to build their perception of General Practice.

In those students who do not have a GP within their family, a personal experience when seeing a GP for an illness may represent the students first experience and the beginning of the perception building process. One can theorise that these could be very different experiences, for example a student who has had a significant illness cared for by a GP may begin to develop a different perception to the student who has only seen the GP for minor illnesses.

Similarly, international students, particularly those from countries in which the family doctor is not present, or who has a significantly different role to that of the UK GP, may

begin to develop a different perception of General Practice prior to their experiences at Medical School. It may be that these students are not aware of the role of the GP at all until they begin University, in which case their perception of this concept does not begin until the Frontstage and Backstage experiences of university.

"Courses prior to starting University" have, in this instance, been categorised as offstage, due to Sinclair's definition of offstage being experiences which occur outside of the institution (Goffman, 1990, Sinclair, 1997). However, when considering the concept of audience, which has been discussed in this chapter, this categorisation may be questioned. These courses may be facilitated by doctors or other medical professionals, or may be run by projects such as the Social Mobility Foundation, a charity which enables school and college students from lower income backgrounds achieve work experience and mentorship to assist them in their application to university ("socialmobilityfoundation.org.uk," 2019). In these situations, despite them being "outside" of institution life, audience may play an important role. The presence of seniors and mentors may have an impact on the experience and meaning that a student takes from these courses, as well as having a potential impact on the need to "impress" these audience members.

The offstage aspect of the life of the Medical Student, although very difficult for institutions themselves to have an impact upon, is highlighted in the literature as having an impact on student's perceptions. However, this is not explored in depth within the current literature.

2.6.4 The value of Sinclair's theory

Using Sinclair's model as a framework to understand the concepts raised in the literature has been a valuable exercise for a number of reasons. This framework has encouraged me to consider the institutional experiences a student may have, compared to the experiences they may have outside of the institution. Comparatively within the literature, there is less exploration of the offstage experiences of students. This is understandable when considering that most research is performed by institutions, who have an interest in identifying factors within the curriculum which may affect student perceptions. However, this does leave further questions to be answered, as the offstage represents a large proportion of the experiences of the student, which are poorly understood.

Sinclair's model has particularly encouraged my consideration of audience when understanding how the experiences of the students reported in the literature may have impacted upon the perception of the student. The role of audience is not explored within the literature itself, however anecdotally many doctors, myself included, will be able to identify situations in which an experience has changed due to the presence of a supportive, or unsupportive colleague for example. Moving forward in this research, this will be a key consideration in understanding the experiences of students and how this has an impact upon perceptions.

There are however limitations to the use of this framework. The framework itself is somewhat restrictive. As has been identified in the 2.6.1, 2.6.2 and 2.6.3 not all of the concepts identified within the literature clearly fit into the frontstage, backstage and offstage categories as they are described by Sinclair (1997). The role of the audience is also key in the bridging of these categories. Audience may not always be a lecturer or a clinical senior, a student may even consider a valued family member to be "audience". If we consider audience to be variable in this way, one of the key differentiators between these categories is lost.

Whilst this exercise in using the frontstage, backstage and offstage to view the literature has been valuable, the concepts raised go beyond these categorisations. Sinclair's framework (1997) is incredibly valuable in understanding these experiences, but the complexities of these mean that these experiences transcend the framework.

2.7 Summary of findings

Despite relatively sparse numbers of papers, the literature reviewed above does offer exploration of how students perceive the career of General Practice. There is also data exploring how students career intentions may change over the course of their undergraduate studies. There is however less data exploring how perceptions develop, and suggesting how this may have an ultimate effect on career intention.

Of particular note is a lack of understanding regarding the backstage and offstage factors which may influence student's perceptions of General Practice. The majority of the literature reviewed here focussed on the frontstage aspects of medical education which had an impact on the perceptions of students.

Indeed, Sinclair's Frontstage, Backstage and Offstage model (Goffman, 1990; Sinclair, 1997) itself comes into question when reviewing the literature. As the concepts explored here do not always clearly fit into these categories. The relationships which have begun to be explored in the literature are complex in nature, and while the Frontstage, Backstage and Offstage concept helps to break down and simplify these, it does not fully show these complex relationships.

There was minimal exploration in the literature of the change that occurred in perceptions through the course of Medical Education. There was an understanding of some of the factors prior to medical school, such as experiences with one's own GP, which impacted early perceptions (Jordan et al., 2003; Scott et al., 2007) and multiple papers discussed experiences within later years at medical school which may impact on perceptions. Some papers offered an analysis of the change in perceptions, or career intentions following an intervention, such as a career interest group (Kerr et al., 2008; McKee et al., 2007) , these were however relatively short term changes. Longer term changes in perception and career intention were not explored in depth. There was minimal exploration of causal factors leading to change in career intention; intellectual challenge, work life balance, a sense of vocation and pay have all been suggested as reasons for choosing a particular career (Cleland et al., 2016; Girasek et al., 2011), but *why* the student holds these perceptions about particular careers is not explored.

Some conclusions therefore can be drawn as to how student perceptions change during medical school, but no paper has expressly explored the differences in perception between students at different points in their Undergraduate Careers; nor offered an explanation as to how these changes in perception develop, and the impact this may have upon a student's career intention.

Whilst this review of the literature has provided some valuable insights into what is already known about medical student's perceptions of General Practice and career intentions, it has also highlighted many areas in which the research is lacking.

2.8 Analysis of literature quality

As has been alluded to in this chapter, the literature surrounding this topic is sparse. Table 3 below further breaks down the methodologies of the sources used herein:

Mode university sites	Mean university sites	Frequency: Questionnaires	Frequency: Semi-structured interviews	Frequency: Focus groups	Frequency: Evaluatory
1	5.8	57	10	15	24

Table 3: Methodologies used in the 86 papers of the literature review

As can be seen in table 3, a large proportion of the papers in this review were based at one university site. 22 of the papers reviewed were either not based in universities, did not disclose how many sites were included, or analysed existing literature.

As can be seen from the above, and was also highlighted in this chapter, many of these works were based around questionnaire studies. Whilst valuable in gauging perceptions and understanding trends, these studies were limited in the deep understanding of the subject they could offer.

Finally, a little over a quarter of the papers reviewed in this work could be considered evaluatory in nature. That is, they focussed on evaluating the quality or worth of a particular intervention, as opposed to being an empirical search for knowledge. Whilst these papers in particular offered valuable insights into interventions and their effect upon perceptions and career intention, the purpose and nature of these works may result in exclusion of other valuable insights from participants.

Whilst this review has offered insights into perception of General Practice, experiences which may affect this perception, and changes in career intention, there are gaps in the existing literature.

2.9 Chapter summary

This chapter has reviewed the existing literature relating to the research questions. Literature surrounding changes in career intention over time, students' perceptions of General Practice and experiences influencing perception of General Practice and psychiatry have been discussed. This literature has then been reviewed using Sinclair's frontstage, backstage and offstage theory.

Chapter 3: Methodology

3.0 Chapter overview

This chapter presents my research philosophy, and demonstrates how the Pragmatic approach has informed and developed my methodology. My study method is then outlined, including changes which were made following recruitment difficulties and the impact of covid. The methodology of analysis is then discussed, followed by rigour and ethical considerations of this work.

3.1 Research Philosophy

3.1.1 Paradigm

When considering the nature of the research questions, it is clear that *perception* forms the crux of the information which must be gathered for this work. Perception is a subjective phenomenon, and requires a deep understanding of the truth within the mind of the individual student (Collis and Hussey, 2013). The aim of this work highlights a need to understand the meanings students attribute to their experiences, how they further use these meanings to explain the world around them (Bryman, 2016), and how these meanings go onto develop perceptions and career intention.

3.1.2 Ontology

Thought must be turned to the nature of the world around us. By attempting to understand students perceptions I assume that the world in which we live is subjective, and each participant has their own reality (Collis and Hussey, 2013) which I aim to capture, and contextualise within the Medical School societal sphere.

This reality is shaped by the experiences and interactions of students, and that their membership of social words is an integral part of both the experiences themselves, and how these experiences develop their reality (Corbin and Strauss, 2008). I have previously discussed the nature of the frontstage, backstage and offstage (Goffman, 1990; Sinclair, 1997) of medical student experience. Each of these sectors represents a shared social world of which the student is a part, which in turn shapes their own reality.

By assuming that reality is unique to each individual and shaped by their societal experiences it becomes clear that to answer the above questions, research methods must be employed which allow us to make sense of each participants view of the world (Bryman, 2016).

3.1.3 Epistemology

In the interpretivist stance knowledge is considered to be subjective. That is there are multiple interpretations of reality, which are all equally weighted (Bunnis and Kelly, 2010; Illing, 2014). And indeed the analysis of the researcher is their own interpretation of the reality that is presented to them by the subjects (Illing, 2014). The research objectives, particularly [RO2], identify the importance of understanding the reality of the individual student, within the context of their societal sphere.

3.1.4 Axiology

My own values may impact the interpretation of this research, as my own professional and personal background, and the values which I hold to be true, provide a lens through which the data as viewed (Collis and Hussey, 2013). My own background and experiences have been previously discussed in Chapter one.

By considering these epistemological and axiological assumptions together, it can be surmised that each student's knowledge is known to be true to themselves. The role of the researcher is to draw together each of these subjective truths into an understanding, which is itself also subjective (Illing, 2014; O'Dwyer and Bernauer, 2014).

3.1.5 Phenomenology

Phenomenology refers to the philosophical approach of studying lived experiences (Smith et al., 2009). As identified in the research questions and objectives, these lived experiences of participants were key in this research, and were hoped to contribute to the wider understanding of development of perceptions. Understanding of individual experiences and sense-making process is complex, and by its nature interpretivist (Smith et al., 2009).

3.1.6 Pragmatism

To understand the Pragmatic approach, one must first understand the Pragmatists view of knowledge itself. Rather than the previously discussed philosophies which are concerned with the nature of reality, the Pragmatist emphasises the nature of *experience* (Morgan, 2014). Our own knowledge of the world comes from our experiences, that is the transactions that occur between ourselves and our connections to the world (Biesta and Burbules, 2003). In the context of this research this knowledge which is constructed through experience is key, and led to my selection of this ideology, as I aim to identify those

experiences which have produced a particular understanding and truth in the eye of the student.

Morgan (2014) identifies three key principals of the Pragmatist Philosophy:

1. *Actions cannot be separated from the context and situations where they occur.*

That is, experiences are specific to the time, place, and person to whom they occur. Therefore the nature of knowledge itself is bound up in the relationships between our actions and their consequences (Biesta and Burbules, 2003; Morgan, 2014). This principle reflects the nature of the phenomena this research is trying to capture.

2. *The link between action and consequence is changeable.*

If the first principal holds true, the same experience will never repeat itself exactly, therefore knowledge is continually being built upon in the light of new experiences (Kolb, 1984; Morgan, 2014). One of the research objectives associated with this work is the need to *map* students' perceptions at more than one point in time, this is of relevance when considering this second principal. The Pragmatist believes that knowledge and understanding evolves over time in light of repeated similar experiences. We therefore assume that students' belief and understanding of a career in General Practice is a fluid one, that will change through their time at Medical School.

3. *Actions are dependent on socially shared sets of beliefs.*

The Pragmatist sees beliefs as interconnected, shared between groups of people, rather than isolated. The worldview of the individual is therefore unique, but shared at a broader level through those which shared experiences (Morgan, 2014). The Pragmatist concerns herself with the "intersubjective" world, that is the subjective world of the individual within the common understanding of the social group (Biesta and Burbules, 2003). The research methods associated with the "conflicting" philosophies of positivism and interpretivism alone do not provide the information to understand this intersubjective world (Morgan, 2014; O'Dwyer and Bernauer, 2014).

The principles of Pragmatist Philosophy outlined above, as well as being a useful lens through which to view the subject's truth, can be of relevance to the approach to the research itself. Dewey (1986) discusses the concept of *Inquiry*, a response to a situation in

which the way forward is unclear. Actions are linked to beliefs, which are formed from considering different ways to proceed and evaluating (based on past experience) which is most likely to result in an outcome which meets the intended purpose (Dewey, 1986).

The Pragmatist researcher takes this concept of *Inquiry* and applies it to the selection of research methods. For the Pragmatist an ideology is only true if it works and therefore research methods are selected not through fitting to a particular epistemology, but through their suitability for answering a particular research question (Gray, 2009). Differing methodologies are all superior within different sets of circumstances, and it is the role of the researcher to reflect upon this based on their own experiences in order to achieve their research goals (Morgan, 2014).

The Pragmatic understanding of knowledge not only highlights the complex beliefs of the student that this research aims to understand, but also offers a structure for deciding on the methods which can be implemented in order to achieve my research goals.

Interpretive phenomenological analysis (IPA)may also be considered to be an approach to this research, both as a philosophy and method which focusses on individual's complex understanding of their experiences and the world in which they live (Smith et al., 2009). Indeed, IPA and Pragmatism share many philosophical similarities. However, pragmatism was selected for this work due to its constructivist underpinnings, which align most closely with the research questions and objectives of this author.

It is, at this point prudent to note that Pragmatism has many forms and approaches that are subtly different. Morgan's (2014) principals are by no means the only principals underpinning Pragmatic research. Morgan's work however, highlights many of the concepts which are particularly valuable to my research. His focus on context and socially shared beliefs embodies the crux of this research. The purpose of this work is to understand and explore student experiences, and any subsequent change in their perceptions. While these experiences are in themselves unique, I believe they form socially shared sets of beliefs within the student group.

3.2 Methodology and Methods, the primary design

The traditional purpose of the methodology, to enable the researcher to organise their research into a proffered category becomes a more complex task when the word is viewed

from a Pragmatic standpoint. This Pragmatic world view may be considered more liberal than the traditional positivist-interpretivist duality (Marshall and Rossman, 2014).

The concept of *methodological currents of thought*, proposed by Schram (2006), suggests moving away from linear methodological terms. Proposing that the methodology is developed to meet the needs of the research, rather than developing the research to fit the methodology. O'Rilley and Kiyimba (2015) identify that these *methodological currents of thought* are essential, particularly in the use of multiple methods research, to establish congruence between methodologies.

There are challenges when developing a Pragmatic methodology, critics may suggest that the pragmatic view focusses on choosing the method that fits, to the detriment of a robust methodology. Therefore, when developing my methodology, thought needed to be constantly focussed on the research objectives. Methodologies were sought which would best suit the purpose of this research, and provide answers to the questions posed, whilst remaining sound and robust.

3.2.1 The selection of multiple sites and year groups

The decision was made early on in the development of this methodology, to recruit participants from two-year groups and multiple sites. The purpose of selecting multiple sites was to understand if findings were true across multiple locations, outlying results could then be further analysed to understand any institutional factors which may affect the perceptions of the student. Selecting participants from early and late in their undergraduate career, meant that understanding could be gained as to the changes that occurred through the process of undergraduate training.

Students were recruited who were studying a course in Medicine, resulting in either an MBBS or MBChB degree. Students were recruited from the first year, and penultimate year of study. The purpose of this selection was to gain understanding of experiences prior to and during medical school, and how perceptions may develop over time. Recruitment of final year students was considered, however I reasoned that these students would find it harder to participate in this research due to proximity of final exams.

Three sites were selected for this study, Newcastle University, The University of Manchester, and University college London. Each of the universities has subtle differences

in their curricula, however they also share similarities, such as being older, redbrick institutions. Selection of sites was limited due to location of colleagues who were willing to assist in this study. Table 4 below summarises the courses at each of the institutions.

University	Years of Study	Clinical Placement notes
Newcastle	5	Regional medical school. From year three students will spend each year in one of four regions. Recent changes to curriculum include more time in General Practice in every year of the curriculum.
UCL	6	Includes an integrated BSc in third year. Year four primarily spent in Central London, and Year six in DGH's. Clinical experience starts in Y4.
Manchester	5	Students split into clinical education zones, around 4 key base hospitals from third year. Remain in the same zone for final three years. GP visits and placements in Years 1,2,4 and 5.

Table 4: Details of each of the four sites in the study

3.2.2 Recruitment

Students were recruited through similar methods at each site. Emails were sent to students who had consented to be sent research emails, the study was mentioned in lectures and students were given the opportunity to take my email address if interested, the study information was also disseminated to seminar group leaders, who were asked to pass on my email address to interested students.

3.2.3 Research Methodology

Figure 6, shows the summary process of the primary research design. Each part of this design is explored in further detail below:

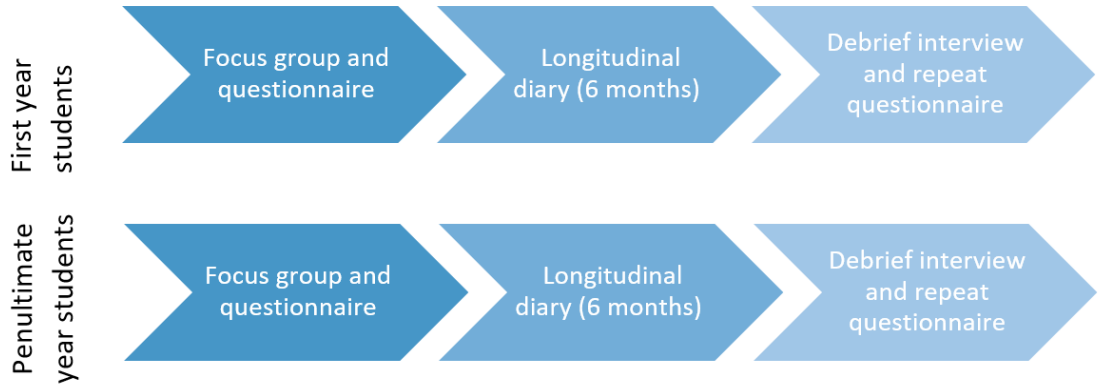


Figure 6: Primary methodology design

As can be seen from figure 6*, the* primary design focussed on three key sections. The focus group, the longitudinal diary and the debrief interview. The same three research sections were to be applied to students in their first and penultimate years, at each of the three sites. These sections are explained in further detail below, challenges encountered in the primary methodology and the resultant adaptations can be seen in section 3.3.

Recruited students were initially invited to join a focus group. On arrival, time was given to giving out consent forms (Appendix 3) and information sheets (Appendix 4). Time was taken to allow the students to read through this information, and chat informally with the researcher with regards to the study.

Initial questionnaire

Once students had time to digest the written information, and were happy to continue with the study, they were asked to complete a short questionnaire on their demographics and current career intentions, including a scale of their likelihood to become a GP in the future, and their top three future careers. A copy of the questionnaire can be found in Appendix 5.

The questionnaire was designed to capture demographic information and current career intention. In this case the demographic information within the questionnaire aimed to contextualise the further points raised by the students. The questions regarding career intentions, whilst also useful for contextualisation, has a comparative value further on in the longitudinal process. Those students who chose to partake in the longitudinal study will repeat the questionnaire, to capture any subjective change in career intention, following the experiences of the student [RO1].

Collis and Hussey (2013) suggest a number of positives to using a questionnaire, particularly at the start of a qualitative process. The questionnaire represents of the opinion of the participant at one point in time which can then be repeated in the future. The "boiling down" of complex truths and perceptions to a scale of "likelihood of choosing GP as a career" may seem overly simplistic, considering the research objectives and the rich data we are attempting to later capture (Silverman, 2017, 2007). However, Barbour and Kitzinger (1998) identify the value of a questionnaire, particularly prior to a focus group, as a way of gaining additional insights to comments made in light of related characteristics, for example age or gender.

Focus groups

Once the students had completed their consent forms and questionnaires and were happy to proceed, the focus group proper began. Students were advised that the focus groups would be recorded, and this was done using a university Dictaphone.

In brief, focus groups are a group interview in which communication between participants is encouraged, in order to gain further understanding of the phenomena being explored (Barbour, 2007; Kitzinger, 1995; Stewart et al., 2007). The purpose of these groups is to explore the "baseline" perceptions of the students involved. To understand their current perceptions and establish if the students attribute any particular experiences to the development of these perceptions.

The focus groups followed the protocol outlined in Appendix 6. In brief there were four key parts to the focus group, these are shown in figure 7 below:

1. Ice breaker and thought exercise: Ask the Students to draw a picture of a "typical" GP

- Reassure students they do not need to show the group their picture, but they will be asked to discuss it.
- Ask the students to expalain what they have drawn and why they think this represents a typical GP.
- This exercise aims to encourage discussion within the group, and identify the students pre-exisiting ideas of the General Practitioner, researcher to explore the reasons why students have drawn their GP a particular way.

2. Lead question: What type of person becomes a GP?

- Leading on from the pictures drawn in 1. Elaborate upon which students choose a career in GP? Why do the participants think this? Do they have any experiences which have led them to this belief?
- This question relies upon the student being able to indentify previous experiences which have led them to their opinions.
- Aiming to make some initial links between students experiences and their beliefs about who becomes a GP, as identified by themselves.

3. Lead question: What do you think is the perception within your University of a Career in General Practice?

- Asking students to consider if there are any groups which hold this perception more strongly than others.
- Assuming that at different institutions, students will have different experiences, this question aims to understand what students think of their institutions attiude toward GP. And if this attitude has had an effect on their own Perception of General Practice.

4. Lead question: How do you feel about a career in General Practice?

- Leading on from and encouraging the students to consider their responses to the questionnire. Encouraging students to elaborate upon experiences they recall which paint GP in a more positive or negative light.
- This question aims to understand students perceptions of GP as a career, both for them and others.
- Further questioning aims to encourage students to consider how their experiences made them feel. And if they can identify any changes these exeriences had on their perceptions of a career in GP.

Figure 7: Key questions and activities in focus groups

The lead questions were intended to promote discussion on the topics surrounding research objectives 2 to 5, whilst still encouraging open thought from the students, and promoting input which I may not have considered. As can be seen from Appendix 6, if responses were sparse, some points for elaboration were suggested in order to promote discussion.

There were a number of reasons that I considered focus groups to be particularly appropriate to meet this purpose. Open questions were asked and interaction between participants forms part of the data collected. By beginning with open questions and participants are able to explore the issues in their own vocabulary providing insight into their understanding, and *why* they think as they do (Barbour, 2007; Kitzinger, 1995).

The communication and group interaction within this method enabled additional valuable data to be collected. Group members can encourage each other to share their experiences and thoughts, which enables in depth discussions to occur (Stewart et al., 2007), participants may even voice more critical thoughts when in this "safe" environment with their near peers (Kitzinger, 1995). Clearly the phenomena which I am exploring is somewhat sensitive, student's perceptions may be affected by less-than-ideal experiences had within the University environment. A feeling of group safety was key in order to gain honest data which is representative of the student's experiences. Also important was the role of the facilitator, to monitor the students for signs of distress and pause proceedings if needed.

Group interaction can promote shared stories of experiences between the participants. Earlier in this work I have discussed the impact of socially shared sets of beliefs (Morgan, 2014). Through interaction with other near peers, an understanding of group norms and subcultural values may be revealed through exploration of shared or similar experiences (Kitzinger, 1995) and it is my belief that this is in some part integral to the formation of students perceptions. This group interaction is key to the use of focus groups in this research, the remaining methods are more solitary in nature, thus the use of focus groups provides additional data which may not be gained elsewhere

The shared aspect of focus groups may be problematic, a dominant character may lead the group and drive discussion (Krueger and Casey, 2014). Group hierarchy may also result in participants being guarded with their answers (Stephens, 2007). It has been noted in organisational research that a temporary power dynamic may be produced in a focus group environment. Participants may not wish to share their thoughts with those who are more senior to them within an organisation, in this case the researcher, but they may also feel guarded in sharing their thoughts with peers in the group who they feel inferior to (Kvale, 2006; Stephens, 2007).

As I wished to gather perceptions of General Practice which were honest, and potentially controversial, I attempted to reduce the effect of hierarchy, and encourage an open, friendly atmosphere. Conversation between the researchers and participants prior to the focus group was encouraged, drinks and biscuits were provided, and first names used, to contribute to the informal atmosphere. If a quieter member of the group was identified, questions were gently directed toward that participant, to encourage their input.

The final purpose of this face-to-face interaction early in the research process, was to produce a relationship between the researcher and the participant. Stewart et al. (2007) highlight the importance of this relationship, the building of trust enabling the participant to feel safe and able to give open answers. I feel this is of particular importance for this work, as the longitudinal aspect of the study requires a significant amount of input from the participants. Beginning the study with a face-to-face encounter allows the participant to see the person behind the research and starts the relationship which will be ongoing through the coming months.

At the end of the focus groups, participants were thanked for their involvement, and invited to take part in the second, longitudinal part of the research. Email addresses were collected from those who wished to partake in the longitudinal diary section of the study.

Longitudinal diaries

Audio diaries are an uncommon form of data collection, therefore the evidence for their use is sparse. There is however more evidence regarding the use of the written diary, particularly in the business sector, where longitudinal diary quantitative data is commonly used as part of a positivist framework to understand the dynamics and patterns of a particular measurable phenomena (Collis and Hussey, 2013).

Diaries are a method of participant-recorded data, which can allow the researcher access to the ongoing, everyday phenomena of the participant within their individual timeline(Bryman, 2016; Cassell and Symon, 2004). The use of diaries enables the researcher to understand the stories of the participant, which enables us to make sense of the building of their knowledge of the explored phenomena (L. V. Monrouxe, 2009). This is of particular value in this research as it allows an understanding of the construction of the student's

thoughts and beliefs about General Practice, *how* experiences change perceptions in the context of those that precede or proceed them.

The diary method was chosen as a prospective method of data collection, allowing participants to record experiences with a degree of immediacy following events (Crozier and Cassell, 2016). Although this is not naturally occurring data in the truest sense, i.e. it is not the observation of events in the environment, it is a report of them, (Silverman, 2017) I feel that this data collection method is as close to *natural data collection* as would be possible in the context of this research. Clearly the sensitive nature of this research, and the wide scope of experiences that it encompasses, mean that in an observational setting, these phenomena would not normally be accessible to myself. The diary method allowed the capture of private experiences which are not usually seen by the researcher (Crozier and Cassell, 2016).

The evidence for choosing audio diaries over a written diary format is sparse. Williamson et al. (2015) suggest that the audio element of the diary enables the student to see the diary as a positive therapeutic process, and therefore increases its power as a self-reflexive tool (L. V. Monrouxe, 2009). Again, when considering naturally occurring data, the audio diary allows less "manufacture" of the data. Thoughts are recorded without the additional editorial step of writing and re-reading.

There were disadvantages to the diary format. I had minimal input into what the student records (Crozier and Cassell, 2016) despite a labour intensive process of prompts and support for the participants (Collis and Hussey, 2013; Williamson et al., 2015). The longitudinal method of data collection means that attrition is common (Collis and Hussey, 2013; Crozier and Cassell, 2016), although as discussed later I hope this was reduced due to the ease of the audio recording process. A relationship between the researcher and the participant is therefore key (L. V. Monrouxe, 2009) to provide encouragement, a sense of appreciation to the participant and a positive atmosphere to the research process. In the case of this study, the relationship that began at the focus group, continued to be nurtured with emails and support during the diary process.

Finally, Monrouxe (2009) also raises the concern that due to intimate nature of the audio diary and the friend-like relationship of the participant and researcher, encounters that may be detrimental to the participants well-being may be disclosed. I was aware that disclosures

of bullying, or symptoms of mental health concerns may be expressed through this medium. In some ways disclosure of this kind would indicate the success of the diary format as a tool for collecting sensitive data and feelings, however this is clearly of concern as the well-being of students in this study is paramount. It was therefore of utmost importance that safeguards were in place to protect students, these are further discussed later in this chapter.

Those who had expressed an interest in the longitudinal diary section of the study were contacted. They were sent by email a further consent form (Appendix 7) and information sheet (Appendix 8). Students were asked to produce a short audio recording, following any experience which they felt had an impact on their feelings regarding General Practice. The students were given a guide as to what to include in their audio diaries (Appendix 9). This guide was intentionally sparse, and it was highlighted to the students that any event they found interesting, be it at home or university, was valuable to the study. Students were also given a practical guide to recording audio diaries (Appendix 10), with instructions to download the Olympus dictation app, a free app which could produce and email recordings to myself with minimal effort.

The purpose of these diaries was to record events experienced by the participants [RO3, RO4] and encourage reflection on how this made them feel about General Practice [RO2].

As can be seen in Appendix 10, the use of technology made it very easy to produce an audio recording and send it via secure email direct to the researcher, taking significantly less time than would be needed to write a similar length diary entry, important when considering the burden of the research process upon the participant.

Audio diary data was collected for a period of approximately six months per student, in order to capture a variety of student experiences, whilst avoiding fatigue in being part of the research. This period of time was flexible dependant on the student's responsibilities, for example exams. As the six-month mark neared, the students were contacted by email to arrange the debrief interview. If a student had not made contact for four weeks, a gentle email reminder was sent, to ask if they had any diaries to send.

Debrief and Questionnaire

As seen in figure 6, the final aspect of the study was the debrief, an interview performed with the student following their data collection. The diary-interview technique combines diaries with an interview by the researcher (Collis and Hussey, 2013). In this way the diary provides a narrative structure for the interview, the diary and the experiences therein generate questions and therefore a deeper understanding of the students experiences and perceptions (Latham, 2004; Zimmerman and Wieder, 1977).

Interviews were performed by myself over skype or zoom (online meeting platforms), in order to flexibly meet with the students at times convenient to them, whilst still being able to take in the non-verbal communication of the student. These debrief interviews were recorded using a Dictaphone.

Students had spent a number of months recording their audio diaries, reflected upon some of their experiences and made sense of these, although these reflections were sometimes superficial. Prior to the debrief the students were asked to repeat the two career questions from the questionnaire, to understand any objective change in perception in the context to the experiences the students have discussed.

In order to gain the most from this diary-interview technique, I reviewed all the student's diaries prior to the debrief interview. I prepared open questions, individualised to the student, to probe deeper into the experiences they had discussed. I asked students to comment on any change, or lack thereof, in their responses to the career questions they had answered, and consider if any particular experiences had contributed to these changes. The purpose of this interview was to delve deeper into the responses the students had recorded.

I considered a focus group format for this final debrief session, due to the positives outlined earlier in this chapter, however there were a number of reasons that this was not suitable. Firstly, students may have different commitments and availabilities, the debrief is an essential final part of the study in order to gain further understanding of the student's perceptions in the context of their diaries, therefore it was important to make these as flexible as possible. Secondly, in order for the diary to provide the narrative structure of the interview, the diaries must be reviewed and discussed with the students. This would require discussion of sensitive events and feelings, which may be withheld in a larger group environment.

3.3 Modifying the research design

3.3.1 Challenges encountered

A number of challenges were encountered during the first stages of the research which resulted in some changes to the research design.

Recruitment challenges

Recruitment to focus groups in Newcastle was initially slow, with one fourth year focus group attracting only two students. This meant that a second focus group was needed to be performed of fourth year students, alongside the focus group of first year students.

Following these three focus groups, no students agreed to continue onto the longitudinal study, potential causes of this were the intensive nature of this part of the study, and that this was not clearly advertised during the focus group recruitment. In order to ensure robust data collection for the longitudinal study, an interview was added, see section 3.3.2 for further details.

Coronavirus 2020

In Spring of 2020, universities suspended face to face teaching for medical students in attempts to slow the spread of Coronavirus. Unfortunately, this occurred in the middle of data collection at Manchester, the result of this was that the focus group of first year students in Manchester needed to be abandoned. Data collection was already completed from all both year groups at Newcastle and UCL, and fourth years at Manchester. Analysis of the raw data began at this point, and as saturation was reached, it was decided with the supervision team that no further data collection at Manchester was needed.

3.3.2 Adaptations to the research design

Recruitment of additional students for the longitudinal study

Further advertising was performed to recruit students directly into the longitudinal section of the study. Emails were sent to students in fourth and first years who had consented to receive research emails, interested students were invited to the study after a brief talk following lectures, and information sheets were shared with seminar group leads to distribute to the students.

Addition of Interview to the longitudinal study

The recruitment of students directly into the longitudinal study also posed a challenge. These students had not yet been part of a focus group, so had not completed a questionnaire or consent form, nor had any retrospective data regarding their previous experiences been collected.

As a result of this I modified the study design into two parts. Each part was to be run at each of the three sites, with first year students and students in their penultimate year (with the exception of Manchester for the reasons discussed in 3.3.1).

Part one:

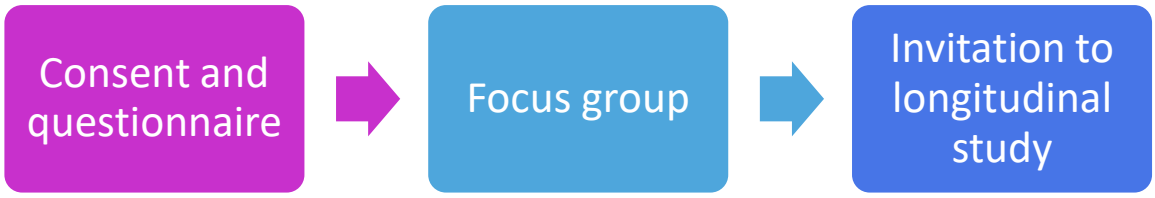


Figure 8: Part one of the modified study design

For part one, at each site and for each year group, students were invited to the focus groups. This was for all practical purposes identical to the initial focus group section of the primary research design. At the end of the focus groups students were asked if they would consider moving onto part two of the study.

Part two:

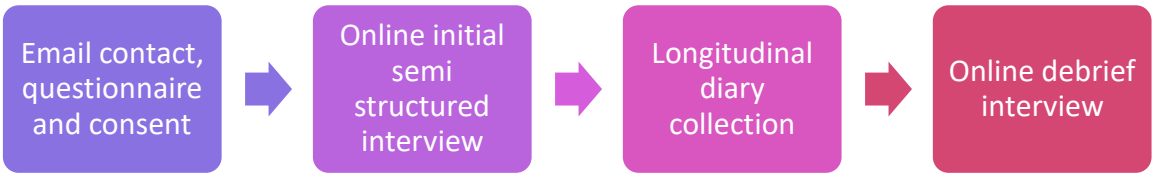


Figure 9: Part two of the modified study design

Students who agreed to be involved in part two of the study were then contacted via an informal email by myself. Some of these students may have been recruited through focus groups, some may have been recruited directly into part two of the study. Those students who were coming into the research from other sites had not had the opportunity to meet me. In order to foster the beginnings of a researcher and participant relationship (Stewart et al., 2007), the leads in London and Manchester gave the students a little information about myself, and told them to expect my email.

If students agreed to continue, they were sent a link to an online consent form for the longitudinal study, more detail on this can be found below. If they had not yet completed a

questionnaire, they were sent a link to do this online. A date was set at a convenient time to the student to do an interview via skype.

The semi-structured interview format was chosen due to its flexible structure, similarly to the focus groups the questions were modified by the interviewer, and elaborated upon to gain understanding of the participants perspective (DeJonckheere and Vaughn, 2019; Jamshed, 2014). Whilst focus groups were preferable for this initial data gathering, for the reasons stated in 3.2.5, there were some benefits to the semi-structured interview format. The removal of the group dynamic may have led to some students feeling safer expressing certain feelings and opinions they may not have expressed in front of their peers (Kvale, 2006; Stephens, 2007), and the one to one aspect may have ensured more in depth data collection from each participant.

As can be seen in the Initial Semi-structured interview protocol (Appendix 11), the questions in this interview were identical to the ones in the focus group. Students who had previously been in a focus group were also asked to undertake an interview, albeit somewhat shorter than those who had not been in a focus group. This meant data which may not have been shared in a focus group could be discussed with the participant, to gain an in depth understanding of their perceptions and experiences.

Once the interview was completed, the participants were sent the information regarding the longitudinal diary data collection, and had a final debrief interview as per the primary research design in 3.2.5.

Use of Survey monkey for Consent forms and Questionnaires

As students could no longer be recruited for face-to-face interviews, ethic approval was granted for the use of an online survey platform, Survey Monkey, for sharing and signing of consent and questionnaires. The site could be accessed by students with a link, however their answers were password protected, so only available to myself. The content of the online consent form and questionnaire was identical to that of their paper counterparts which can be seen in Appendices five and six.

3.3.3 The role of the student advisor

It became clear early on in the research process that the longitudinal study required a longer than average time input from the student, and there was significant paperwork for the participant to read and digest.

I developed the student advisor role to review materials given to participants, to ensure understandability, and to review the acceptability of the demands of the research. Fortuitously, I was approached by a student as I was developing this role, who wished to be involved in the research, and who volunteered to assist me in this advisory role.

This volunteer read through the student material, and reviewed the protocols for the study. They checked that student material was understandable, and that they considered the demands of the research protocols to be acceptable to their peers. They fed back their findings to me via email and face to face discussion. This input resulted in some changes to participant documentation for clarity.

3.4 Data analysis

3.4.1 Transcription

Audio recordings were transcribed by Ndata. A local information capture service based in North Shields. For files containing more than one participant, the speaker was labelled, to ensure responses could be assigned to the correct participant. The process of transcription may be considered to be a part of the analysis, therefore a role for the researcher. Analysing purely through the written transcripts means that the subtleties of the spoken language of the participant is lost (Bailey, 2008). Use of a professional service, as well as being a time saving device, produced good quality transcriptions, in which there was notation of pauses, and other nonverbal information. In order to further ensure nonverbal information was captured and understood, I listened to each audio file before and during the analysis process (see below).

3.4.2 Questionnaire data

The main purpose of the questionnaire data was to contextualise the longitudinal and focus group data, and broaden the understanding of the impact of background and cultural differences of the participants (Connelly and Clandinin, 1990). The questionnaires, as can be seen earlier in this chapter, also included information regarding students “top three” career choices, and their likelihood of choosing a career in General Practice.

Although the primary purpose of these questionnaires was to broaden the understanding of the other data, some time was taken to a brief analysis of the demographic and career intention provided by the students, as can be seen in Chapter 4, in order to further understand the population of the study as a whole.

3.4.3 Narrative analysis…

Narrative analysis, sometimes known as the Narrative mode of analysis or Analysis in Narrative, focusses on the experiences of an individual and putting these together into a coherent plot (Maple and Edwards, 2010; Polkinghorne, 1995). For this reason, Narrative analysis was chosen as the method to understand the individual stories of longitudinal participants. Narrative analysis is not merely the transcription of the raw data provided by the participants, but understanding how and why events occurred and gaining knowledge of the participants lived experience as a coherent whole (Jeong-Hee, 2015; Price et al., 2013).

Mishler (1995) refers to these two entities as the "telling" and the "told". The "told" being the raw data, as it is told to the researcher, and the "telling" being the reformed, coherent narration of the researcher, as presented to the reader. There are a number of techniques which may be used to analyse and "tell" the story of an individual's narrative, these are discussed below:

Mishler (1995) suggests that Labov's method (Labov and Waletsky, 1967, cited in Mishler, 1995) can recapture the meaning of a narrative by breaking it down into six component parts for its "telling" to the reader.

Mishler (1995) interprets these parts from Labov's original work as follows:

Abstract	A short summary of the story and the key points therein
Orientation	Contextualising data such as place and time. In this case including data provided by students in questionnaires.
Complicating action	The brief plot, events that occurred and their effect upon the participant.
Evaluation	Reflection upon the meaning of the events, both by the participant, and meanings as interpreted by the "teller"
Result	Exploration of the resolution of the stories end
Coda	Returning the narration, and the listener, to the present

Table 5: The Labovian model as interpreted by Mishler (Labov and Waletsky, 1967, cited in Mishler, 1995)

Whilst this 6-point structure offers a structured way of interpreting narrative data, it relies upon a traditional story structure with a beginning, middle and end. After reviewing the raw data from the longitudinal participants, it became clear that there was not an ascribed end point to these narratives. Whilst this model was therefore unsuitable to use in its entirety, it highlighted points which would become important in the final methodology. Particularly the importance of the contextualising data when interpreting the participants narratives, and the reflective element, including both the "told" meaning of the events, and the "tellers" interpretation of these.

Mishler (1995) does suggest an alternative to the Labovian model, in his concept of "Reconstructing the told from the telling". In which he suggests reordering the storyline chronologically, in order to identify patterns and make sense of the lived experience of the participant.

Burrowing and broadening

Whilst Mishler's (1995) concept of "Reconstructing the told from the telling" produces a chronological plotline, through which the participant's experiences can be told. It does not explicitly make use of some of the points of the Labovian model which may be of value when understanding the data.

Connelly and Clandinin's (1990) method of "Storying and Re-storying" bears some resemblance to Mishler's (1995) "Reconstructing the told from the telling" method, in that it identifies the technique of rearranging and retelling the "told" story, in order to bring he significance of the participants lived experience to the fore.

As part of Connelly and Calndinin's (1990) method they identify the concepts of Burrowing and Broadening. The purpose of broadening is to draw the contextualising details of the participant into the "telling" of the story, identifying how background, demographics, culture and experience have an impact upon the narration (Connelly and Clandinin, 1990; Herman and Vervaeck, 2019; Mishler, 1986). Whereas Burrowing focusses on specific details to determine the participants feelings, understandings and dilemmas (Connelly and Clandinin, 1990).

3.4.4 Narrative smoothing and Interpretation

Two concepts are discussed in the literature which were important to consider when developing this methodology; Narrative smoothing and interpretation of suspicion/faith. This short section explains the consideration I gave to these concepts when analysing the longitudinal data.

Narrative smoothing

Narrative smoothing refers to the process of creating a coherent story from what may be disconnected data, the "told", and transforming them into a complete plotline, "the telling", which is engaging to the reader (Jeong-Hee, 2015; Mishler, 1995).

Narrative smoothing may be problematic in that it involves some selective reporting of the data, through an attempt to present a coherent narrative. Spence (1986) summarises the concerns that this process of "filling the gaps" in a narrative, the faithfulness of the account may be lost. Whilst it is important to present to the reader a plotline, this should not result in the telling of a story that is essentially different to the original (Jeong-Hee, 2015; Spence, 1986).

Whilst this is considered an essential part of producing a narrative plotline, I took additional steps in my analysis to reduce the impact of any narrative smoothing upon the stories of the students. I presented the contextualising information, from the questionnaires completed by the students, alongside their narrative plotlines. In order that the reader may understand how I had drawn upon this information in my Analysis of Narratives.

Whilst Narrative smoothing is necessary, it also may have an impact upon the story the reader takes from this work. Although I cannot completely negate any effect Narrative smoothing has upon the data presented herein, my steps aim to reduce this effect and present a Narrative that is faithful to the experiences of the individual participants.

Interpretation of suspicion and interpretation of faith

The paired concepts of interpretation of suspicion and interpretation of faith can be applied to the researchers approach to narrative analysis:

Narrative data may be approached from and Interpretation of faith; that is a perspective that the participant is providing a true narrative of their own subjective experience. This

approach explores a participants lived experience, and aims to reproduce this faithfully to the reader, as a representation of the participants truth (Jeong-Hee, 2015; Josselson, 2004).

Although the Interpretation of suspicion may appear to be in direct conflict with the interpretation of faith, it is intended to be a complementary approach to understanding the data. The Interpretation of suspicion aims to uncover hidden meanings within the narrative data. By looking at language, play on words, or in the case of this study; audio logs, initially undiscovered implicit meanings may be unearthed (Josselson, 2004).

It is important to note that this interpretation of suspicion does not imply that the narratives provided by the participants are untrue. This interpretation aims to uncover deeper layers of meaning within the data which may not be clear at first glance (Jeong-Hee, 2015).

3.4.5 … Or Analysis of Narratives?

I have so far discussed the concept of Narrative analysis; the analysis of individual plotlines of the longitudinal data, as a process of understanding each student's perceptions. How their lived experiences impact upon their perceptions of GP, and the impact that this may have upon their intention to pursue a career in GP. Understanding these individual narratives is immensely valuable in meeting the research objectives of this study, and mapping the changes in perception over time.

However, the focus of this research is not only upon the students as individuals, but also as a "society" of undergraduate medics. Therefore, in addition to individual stories, I wished to understand commonalities and differences between students.

The Analysis of Narratives, sometimes called the Paradigmatic mode of analysis, identifies themes common across collected stories (Polkinghorne, 1995). Concepts are inductively derived from the data, in this case the interview, longitudinal diary and debrief. Relationships between particular concepts are analysed, and further developed into themes (Polkinghorne, 1995; Sharp et al., 2018).

In this way, similar to the more widely recognised thematic analysis (Braun and Clarke, 2006), themes are developed which explore commonalities and differences between the stories of the participants. Whilst this method provides themes which are valuable in

understanding how this research may be transferable to other contexts, it risks losing some of the nuances of the individual narratives.

3.4.6 A modified approach

In order to analyse the data in a way which would understand the narratives of the individual and the wider themes, I developed the technique described in my process of analysis combining both Narrative analysis and Analysis of Narratives. The combination of these techniques has been successfully used in medical and psychological literature to gain and understanding of data through both the narrative pathway of the individual, and themes within these narratives (Floersch et al., 2010; Suter et al., 2021).

3.4.7 Process of Narrative Analysis of longitudinal data

The first step in my data analysis was to perform a Narrative analysis of each of the six students who had completed the longitudinal study. The interview, diary and debrief transcripts and audio files were collated into a file for each individual student. The transcripts were read, and the audio files listened to in their entirety, before beginning the analysis process depicted in figure 10. The Narrative analysis process was then performed primarily using these transcripts and notes in paper form, with the audio files available in case additional clarification was needed. At each step in the process, aside from step one which focussed on contextualising data, the data was reviewed firstly with the interpretation of faith, and then the interpretation of suspicion, in order to extrapolate the superficial and deeper layers of meaning within the text. Appendix 12 demonstrates an example of this process, through a transcription of my handwritten notes.

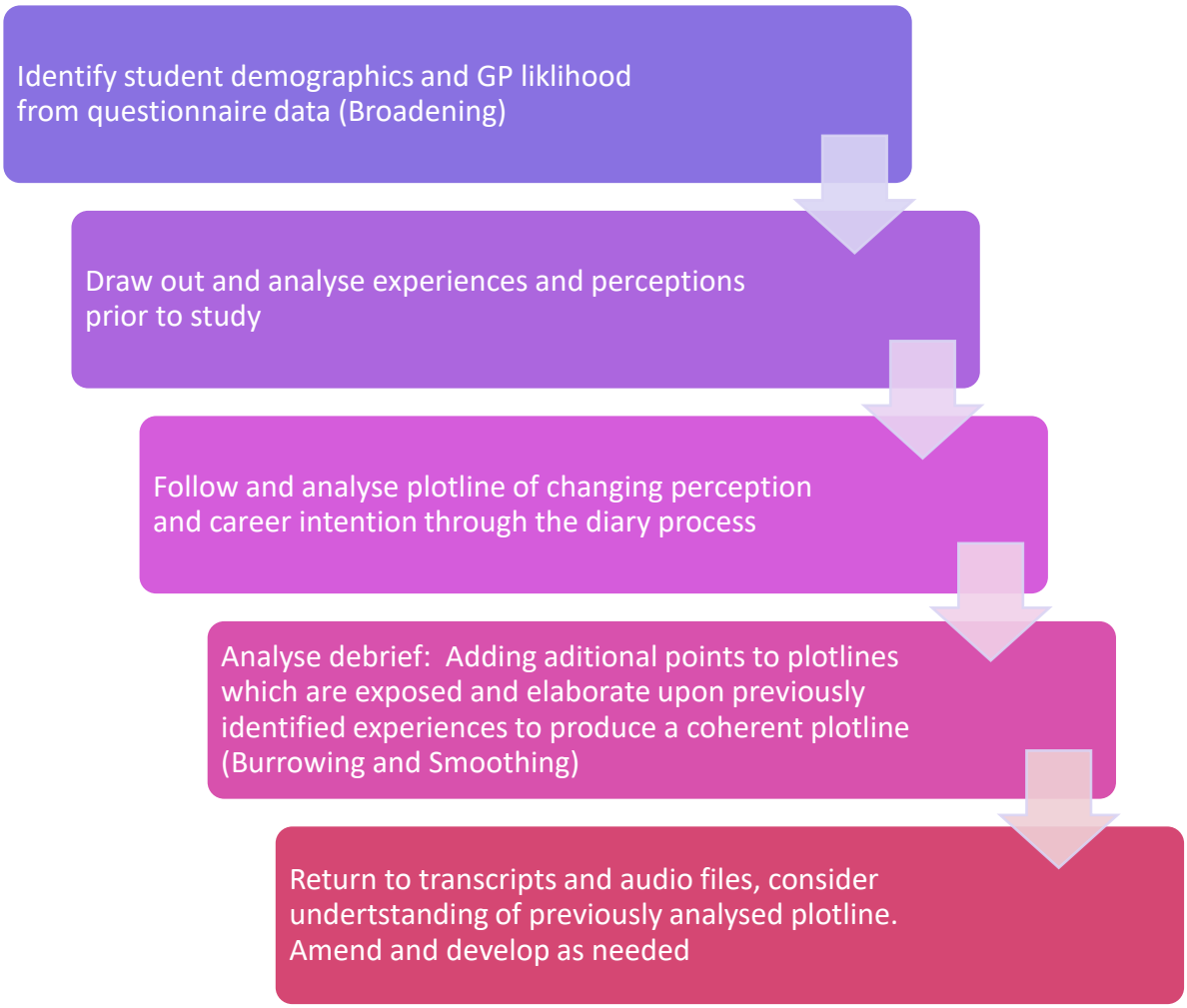


Figure 10: Process of Narrative analysis of individual students' Longitudinal data. Including the concepts of Broadening and Burrowing (Connelly and Clandinin, 1990; Mishler, 1986)

After completing this process, I was left with six narrative plotlines, one for each student in the longitudinal study.

3.4.8 Identification of Push and pull factors, and development of diagrams

Through the narrative analysis process, it was identified that experiences could be broadly grouped into those which had a positive or negative impact. The theory of push and pull was identified as a way of representing these experiences, which could be used to summarise the experiences of the participants.

Push and pull factors are a concept initially used in theories of migration; each individual has push factors which impel them to leave their country of origin, and pull factors, which attract them to certain other locations (Castles, 1998).

This concept has been adopted by the HR sector and applied to recruitment and retention of employees ("HR Magazine - Retaining talent with leadership that cares," 2020). In recent years these HR concepts have also been applied to medical careers decision making; identifying which factors attract students to a particular career path, and which repel them (Cleland et al., 2016; McNaughton et al., 2018). Whilst this use is marginally different to the original use of the term with regards to migration: In its truest sense push factors push an individual away from their current environment, whereas in career decisions push factors are dissuading students from a future choice (e.g., General Practice). Whereas pull factors attract a student to that same career choice. Considering students experiences in terms of push-pull factors rather than simply positive or negative, enables understanding of student's experiences in terms of their individual, internal desires for their future career.

It is of note, that a pull factor towards another speciality, may have a negative effect upon likelihood of choosing General Practice as a future career. For example, a student who has an excellent experience in hospital placement, may begin to consider this speciality for their future career. This experience becomes a pull factor for that speciality. Whilst not a push factor for General Practice in the truest sense; this experience is not broadly negative in relation to General Practice; this experience does contribute negatively to the student's intention to pursue a career in GP. Therefore, for the purposes of diagrammatical representation, such experiences were grouped with more traditional push factors.

Development of diagrams

Considering Push and Pull factors enabled me to produce a pictorial representation of the experiences of each individual student. A demonstration of this diagram can be seen in figure 11.

In the below diagram the two dashed red lines indicate the start and end of the study. Any experiences represented to the left of the start line are those which occurred prior to the study. For diagrammatic readability these are not chronological, therefore experiences prior to university are seen alongside those in university, but prior to the start of the study. The area between the first two lines represents time between the initial interview and the debrief interview.

The blue line separates the push and pull factors, and the dashed line signifies the fluidity of perception ad career intention through the course of the study

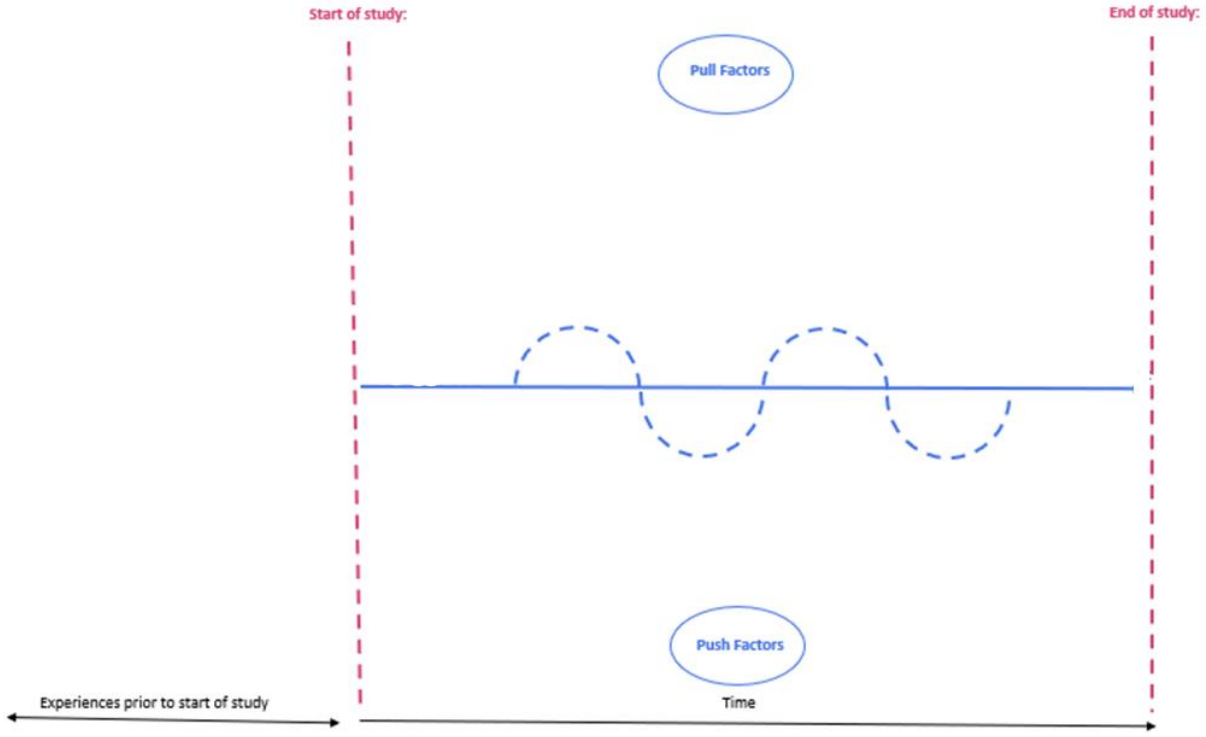


Figure 11: Example of a longitudinal diagram

It is important to note that the above is not a graphical representation; the analysed data does not allow for a numerical scale of an experience increasing or decreasing likelihood of choosing General Practice by a number of points. The above is a visual representation and simplification of the participants experiences and career decision process.

3.4.9 Process of Analysis of Narratives of longitudinal data

Each plotline was read through for underlying concepts. Concepts were considered to be text relating to perception of GP, experiences surrounding GP, and consideration of a career in GP or elsewhere, in keeping with my research objectives. Concepts were then drawn inductively from the plotline data. During this process the audio files and transcripts were available for further elaboration if this was felt to be needed. After analysis of an individual student's plotline, their transcripts and audio files were reviewed again, to clarify understanding of the concepts, and ensure these were faithful to the student's story.

After concepts had been drawn from all six plotlines, these were combined and developed into broader themes. This process was done by hand, writing out concepts onto paper, and

rearranging these into groups and then themes on a large table. Finally, the transcript and audio data were reviewed again, to assess the faithfulness of the themes to the experiences of the students.

3.4.10 Analysis of focus group and interview data and Analysis of Narratives

Three students participated in primary interviews, but did not respond to further email contact once enrolled into the longitudinal section of the study. To ensure all data was utilised, these interviews were analysed with the focus groups, as retrospective discussions of student's experiences, at one point in time.

Due to the larger number of participants the focus group and interview data were analysed using Nvivo. Nvivo enabled focus groups and interviews to be coded to a "case", meaning that individual quotes could be traced back to the speaker, and the speakers anonymised for demographic and career intention data.

The previously analysed longitudinal data provided deductive seeds for the further analysis. This longitudinal data from the Narratives was broken down and coded into broad concepts using NVivo. Quotes relating to each concept were coded under a concept node.

The focus group and interview audio files were then listened to in their entirety to familiarise myself with the data. Then they were systematically analysed for concepts which either elaborated upon those previously identified, or newly emerging concepts. Being either coded to existing nodes, or new nodes developed.

Finally, these concepts were grouped into themes, this process was initially done by hand, writing concepts onto sticky notes and grouping and regrouping. Transcripts and audio files were continually revisited to ensure these themes and meanings were true to the raw data. These thematic groups were then transcribed into NVivo as parent nodes.

As with the Narrative analysis, the recordings and transcripts were then reviewed a final time to ensure a faithful representation of the experiences of the participants.

3.5 Rigour

Lincoln and Gruba's (1986) concept of trustworthiness informed the development of this study, in line with their criteria for rigour in qualitative research. In this section four concepts of credibility, transferability, dependability and confirmability are explored in the context of this work.

3.5.1 Credibility

Credibility concerns itself with the confidence in the truth of the findings from qualitative research and their congruence with reality (Stahl and King, 2020). The prolonged nature of the longitudinal aspect of this work aimed to facilitate researcher engagement and familiarity with the data, and assist with understanding of patterns within the data.

Multiple data sources (focus groups, longitudinal diaries, questionnaires and semi-structured interviews) were used to triangulate data, and particularly to gain an understanding of the themes discussed later in this work.

Respondent validation may further demonstrate rigour (Stahl and King, 2020), however it was considered that, particularly longitudinal participants, had contributed a great deal of time to this work, and minor changes would not change the results of this work. Finally, multiple theoretical lenses have been used in the later chapters of this work, to gain a rigorous understanding of the findings.

3.5.2 Transferability

Whilst qualitative research cannot aim for replicability, findings may be applicable to similar circumstances, to allow others to use knowledge herein to further their own understanding (Stahl and King, 2020). Contextualising data was gathered, such as participant demographics and institutional information to aid in this transferability. Rich data was gathered through the focus groups, semi- structured interviews and diary data, which may be assessed and considered by others for applicability to their own circumstances.

3.5.3 Dependability

Peer debriefing and scrutiny are considered to create trust that findings of the research are supported by the data (Korstjens and Moser, 2018; Lincoln and Guba, 1986). Throughout this work my supervision team have been instrumental in critiquing my methodology and results, probing my assumptions and perspectives of my findings.

Members of the supervision team reviewed and validated the analysis at multiple points. Initially coding through NVivo was reviewed by an individual supervisor, and then discussed in a one-to-one supervision meeting. The drawing together of themes and individual narratives of the students were then reviewed in a group meeting with all three supervisors, themes and narratives were critiqued and scrutinised. Finally, this written work has been

reviewed by the supervision team, triangulating the analysis herein with the previously reviewed data.

This work has also been discussed in three conference settings, and in local GP educational group meetings: Adding a further level of scrutiny to the processes herein.

Whilst peer review of coding may be considered within this category, it was discounted within this work. Due to the nature of the subject and my own career as an academic GP, an element of researcher bias will always be present in this work. Rather than aiming to artificially eliminate this bias through peer review of coding, I have sought to understand these assumptions through debriefing with the supervision team, and reflective sections which can be seen throughout this work.

3.5.4 Confirmability (and reflexivity)

Confirmability refers to the extent to which other researchers could confirm the findings of the data (Korstjens and Moser, 2018). This may not be applicable to all qualitative works, as confirmability implies an element of neutrality, therefore an absence of researcher bias.

As discussed in section 3.5.3, true confirmability within this work is not achievable nor desirable. Therefore, efforts have been taken throughout this thesis to explore my own assumptions and values reflexively, and understand the impact these may have had upon research decisions.

The Pragmatic methodology depends upon the subjectivity of the researcher, knowledge is experiential, and cannot be separated from the context in which it occurs (Morgan, 2014). Therefore, the analysis of one researcher cannot be completely identical from that of another, who will analyse data through their own contextual lens.

This aspect of Pragmatism does not mean that bias should not be attempted to be reduced, but alongside the actions outlined above, bias should be understood and explored within the work. During data gathering care was taken to remain a passive, questioning observer, encouraging participants to share their own experiences and understanding without disclosure of my own. Throughout the introduction, analysis and discussion chapters, my own experiences have been discussed, providing context to my own lens for analysis.

3.6 Ethical Consideration

3.6.1 Ethical approval

Ethics approval was granted by Newcastle University FMS ethics committee. Upon the aforementioned changes to the methodology, amendments were later submitted and approved by the committee.

3.6.2 Anonymisation of participant details and data management

Participant details were anonymised at each stage of the process, and the data stored as follows:

Questionnaires

Once a questionnaire was completed, the student was assigned an ID number. Their questionnaire answers and ID number was inputted into a spreadsheet in a password protected folder. A link sheet containing the participant's name, contact details and ID number was kept in a separate password protected folder, in order that the participant could continue to be contacted throughout the study. Once the participant had completed their involvement in the study, this data was deleted.

Paper questionnaires were kept in a locked filing cabinet, and online questionnaires were accessible on the survey monkey website, which was password protected. These were destroyed once data analysis was completed.

Focus groups

The focus groups were recorded on a Dictaphone device, and then uploaded to a password protected folder. They were sent to Ndata transcription services via Newcastle Universities secure file drop-off service.

Students were asked to identify themselves by first name at the start of the focus group, this was used by the transcription service to identify each speaker in the recording. The text files were then returned again via the secure drop-off service. Before saving the files the first names of the students were replaced with their ID number. Audio and text files were kept in separate password protected folders, the audio files containing the first names of the students were deleted as soon as they had been reviewed as part of the data analysis.

Interviews

Primary and debrief interviews were performed over skype, recorded on a Dictaphone device and uploaded, saved and transcribed in the same way as the focus groups.

Participants were asked not to state their name on the recordings. The recordings and transcripts were saved under the participants ID number in a password protected folder.

Diaries

Students were asked not to include any personal information in their diaries. Once each diary entry was recorded in the app, students were asked to send this diary entry to my NHS secure email address. The diaries were saved in a password protected folder under the student's ID number, and the email was immediately deleted from both the inbox and trash folders.

Diary files were sent and returned from transcription via the Newcastle University secure drop-off site, and transcriptions saved in a password protected folder. Once analysed the audio files were deleted.

Any remaining text files will be deleted upon the completion of this qualification, and the completed write up of any papers for publication.

For the purposes of readability of the Narrative Analysis, participants were assigned a pseudonym.

3.6.3 Multiple site management

The use of multiple sites added additional ethical complications. Data collection at Newcastle was performed by myself, however focus groups at Manchester and UCL needed to be supervised by a site lead at those institutions. The site lead was responsible for recruitment to the focus groups and the running of the focus groups. The site leads were provided with the Focus group protocol, in order to ensure that data was collected in reproducible way. Although it is important to note that variety in focus groups occurred, as the protocol encouraged organic discussion of the points raised by the students, rather than a strict set of questions to be asked.

The use of a site lead, particularly one who may be considered senior to the participants may, as mentioned previously lead to students being guarded with their answers (Kvale, 2006; Stephens, 2007). This was particularly problematic at UCL where the site lead was also the head of GP teaching, the techniques outlined in 3.2.5 were engaged to attempt to negate these effects.

Ethics approval also needed to be sought at the two external sites. The site leads contacted their local ethics committee, with my details, and ethics approval from Newcastle. I completed additional documentation as needed to ensure ethical approval was gained at the two external sites and permission was granted by Manchester University ethical committee, and UCL ethical committee.

3.6.5 The role of the nominated deputy

Part way through the process of data collection I had some time away from studies due to Maternity Leave. During this time a nominated deputy was appointed to perform interviews and collect longitudinal data on my behalf. This nominated deputy was an academic GP registrar, with experience in qualitative research and semi-structured interviews.

Appendix 13 shows the informal advice sheet, highlighting the roles of the nominated deputy. In actuality during my period of leave, due to the coronavirus pandemic, only one student was recruited to the longitudinal study. This student had their interview performed by the nominated deputy, but was then lost to follow up before submitting any diary entries.

3.7 Chapter summary

This chapter has outlined the philosophical beliefs behind this work, and identified their influence on study design. It has described the primary design of the study, and how this design was adapted in light of recruitment difficulties and covid, into the final method. The process of analysis has been discussed, using the hybrid of Narrative Analysis and Analysis of Narrative techniques.

Chapter 4: Participants, demographics and career intentions

4.0 Chapter overview

This chapter presents the demographic data of the participants in the study, and their responses to the career intentions questionnaire at the beginning and end of the longitudinal process.

4.1 Participants

A total of 26 students participated in the study. Of these 14 students were recruited from University A, six from University B, and six from University C. 24 completed the initial questionnaire, two first year students failed to provide their questionnaire details. There was a total of ten participants in their first year of study, and 16 in their penultimate year of study. Figure 12 below shows the participants involved in each stage of the study at each of the three sites. A more detailed breakdown of the volume of data collected can be seen in Appendix 14.

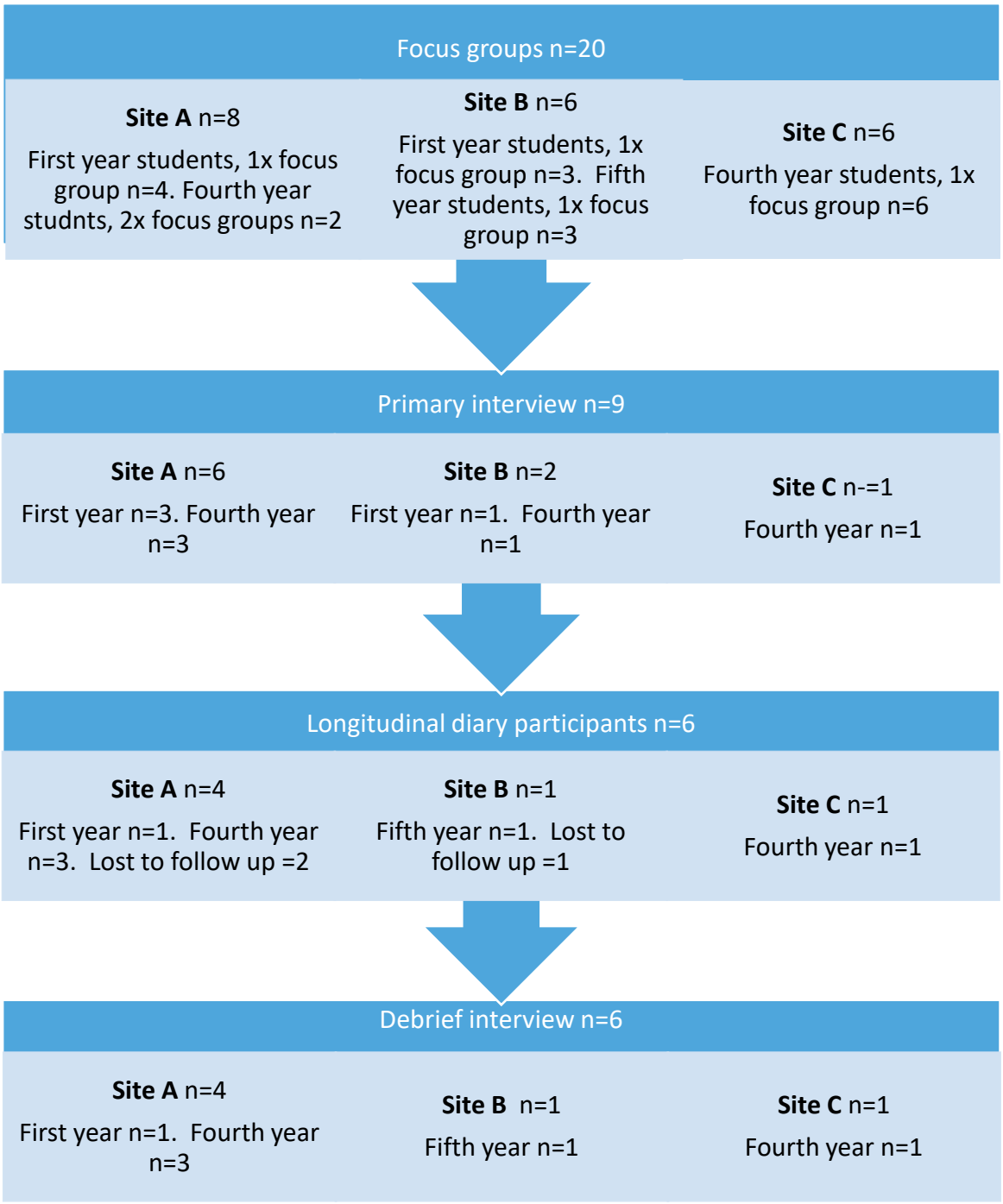


Figure 12: Participants involved in each site and stage of the study

Of the students in the primary interview stage, all participants from site B and C were recruited directly from the focus groups. All focus group participants in site A declined involvement in the interview and diary section of the study, the six site A participants were recruited from other sources as highlighted in the methodology chapter. Focus groups for first years in site C were due to be undertaken in Spring of 2020, these could not be performed due to the Coronavirus pandemic.

4.2 Participant demographics

The primary questionnaire identified the participants' age, gender, and ethnicity. These demographics are presented here, however as identified in my methodology, the purpose of gathering these demographics was to contextualise the qualitative data provided by the participants. This qualitative data is presented in subsequent sections.

4.2.1 Age

Of 26 participants, 22 identified themselves as being under 25. 2 identified themselves as being 25-35, and two did not submit any age details.

Of those participants who completed the longitudinal part of the project, five were under 25, and one fell into the 25-35 age group.

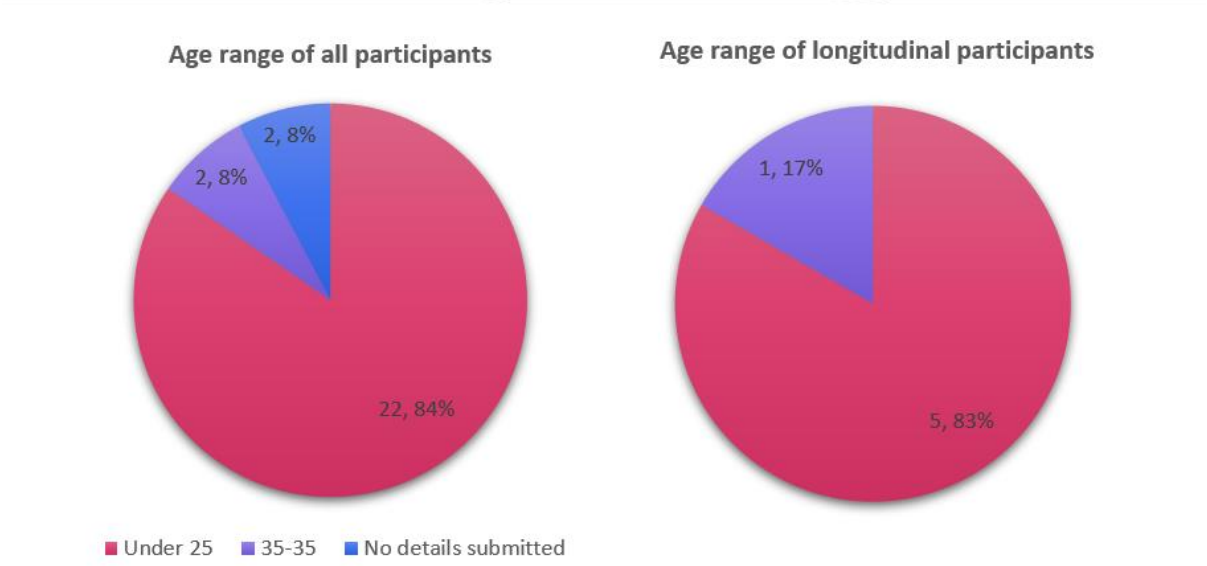


Figure 13: Pie charts demonstrating age ranges or all participants and those in the longitudinal study

4.2.2 Gender

Of 26 participants 13 were female and 11 were male. Two participants did not supply any gender details. Three of the students who completed the longitudinal part of the study were female, and three were male.

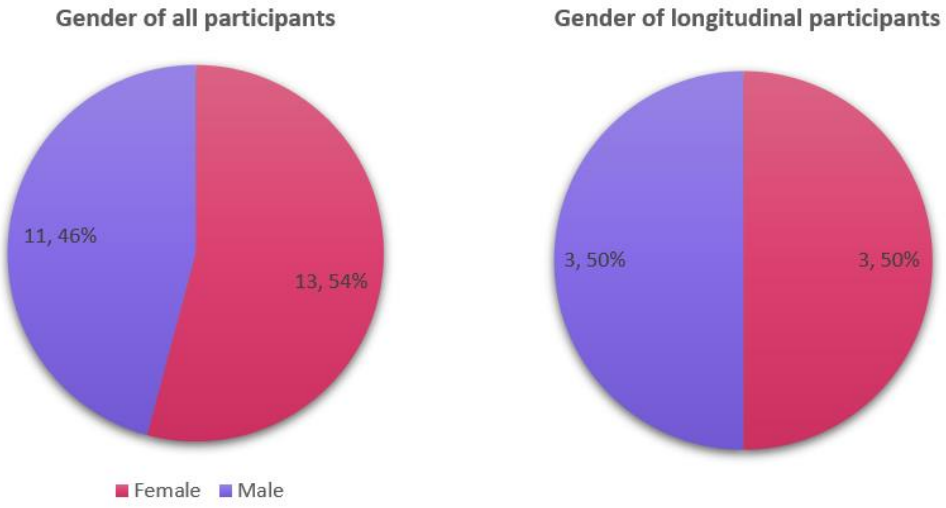


Figure 14: Pie Charts demonstrating gender of all participants, and those in the longitudinal study

4.2.3 Ethnicity

The self-reported ethnicity of the participating students is demonstrated in table **X**. Students selected the ethnicity that they felt most closely described themselves from the UK Office of National Statistics recommended list ("List of ethnic groups," 2020)

Ethnicity	**N**	**%**
English/Welsh/Scottish/Northern Irish/British	11	42.3
Indian	5	19.2
Irish	1	3.8
Other white background	1 (French)	3.8
Pakistani	1	3.8
White and Asian mixed ethnic group	1	3.8
Other Asian Background	1 (Sri Lankan)	3.8
Caribbean	1	3.8
Any other ethnic group	1 (Indian/Thai)	3.8
Not Supplied	2	7.7

Table 6: Ethnicity of participants

Of the students who completed the longitudinal study, five (80%) considered themselves to belong to the English/Welsh/Scottish/Northern Irish/British ethnic group, whilst one student selected the White and Asian mixed ethnic group.

4.3 Likelihood of choosing a career in General Practice

Students identified their likelihood of choosing a career in General Practice using a rating scale, they then identified their "Top three" career Choices for the future. All students completed this as part of their questionnaire at the start of the study, and those who completed the longitudinal study completed this questionnaire again at the end.

4.3.1 Likelihood of choosing a career in General Practice: Rating scale data

Rating scale data at the start of the study

Table 7 below breaks down the frequency of the selection of each rating score for all participants. Tables showing more in-depth data may be found in appendix 15. The rating scores ranged from zero, being not at all likely to choose a career in GP, to ten, extremely likely to choose a career in GP. Two of the 26 participants did not submit rating scores.

Assigned Score	Frequency
3	1
4	1
5	7
6	6
7	2
8	6
9	1
Total Responses:	24
Mean assigned score:	6.21
Range of responses:	6

Table 7: Frequency of responses for "likelihood to choose a career in GP" rating scale

The participant data offers contextualising information for later chapters of this work. The number of participants reflects the qualitative nature of this work, and precludes any in depth statistical analysis of this data.

There were two key points of note within this data which warranted later consideration. The two students who were over 25, rated their likelihood of choosing a career in General Practice highly. Also, students who were in their penultimate year of study had a wider range of assigned scores than those who were in their first year of study, all of whom assigned a score of five or six. Suggesting a preference for General Practice amongst the

older students, and more polarised views of General Practice as students near completion of their studies.

Rating scale data from longitudinal participants

Six participants were involved in the longitudinal part of the study. These participants rated their likelihood of choosing a career in GP both at the start of the study in the questionnaire, and again during the debrief interview.

At this stage in the analysis, participants were assigned a "name", alongside their ID number, for the purposes of later analysing their narratives in a personal and relatable manner. These names have been selected to be in keeping with the participants self-declared ethnic identity.

Table 8 shows the changes in participants rating of GP likelihood at the start, and the end of their involvement in the study.

ID	Assigned name	Gender	Age	Institution	Year of study	GP rating 1	GP rating 2
1207	Dave	M	<25	A	4	3	3
1205	Sarah	F	<25	A	4	8	8
1206	Ahmed	M	25-35	A	4	8	8
1106	Lee	M	<25	A	1	6	6
2202	Lucy	F	<25	B	5	8	7
3203	Nicola	F	<25	C	4	5	5

Table 8: Change in likelihood of choosing a career in general practice, rating scale data

Only one of the six students involved in the longitudinal study identified any change in their likelihood of choosing a career in General Practice over the six months of the longitudinal study. This subtle change of one point is further explored within Lucy's narrative.

4.3.2 "Top three" career choices

<u>"Top three" career choices at the start of the study</u>

Table 8 depicts the frequency each career was identified as one of the top three by students completing the questionnaire at the start of the study, collated into groups for ease of reading. The data depicting all ungrouped career choices can be seen in appendix 16. Groups are collated according to speciality, that is, general practice, medical specialities (within hospital, including paediatrics, anaesthetics and emergency medicine), surgical specialities (within hospital), other specialties (all of those careers identified which do not

completely fit into any of the above groups, psychiatry, international medicine and expedition medicine), non-clinical careers and unknown.

Two of the 26 participants declined to submit a career choice questionnaire.

	Frequency			
	First Choice of Career	Second Choice of Career	Third Choice of career	Combined
General Practice	8	1	5	14
Medical speciality	7	16	9	32
Surgical speciality	3	3	1	7
Other speciality	3	1	1	5
Non clinical career	1	0	2	3
Unknown	2	3	6	11
Total	**24**	**24**	**24**	**72**

Table 9: Frequency at which specialities occurred in first/second/third choice of career data

Table 9 highlights that general practice was stated as one of the top three careers by 14 of the 24 respondents (58.3%). But only 8 of these considered it to be their first-choice career (33.3%).

General practice was mentioned as one of the top three career choices by two of the eight first year medical students who completed the questionnaire (25% of students), and by 12 of the 16 final year students (75%). Unknown career choice was mentioned repeatedly by students in their first year of study. Students in their penultimate year of study who indicated that one of their "top three" career choices were unknown, only answered this for "career choice three", after giving two more likely career choices.

These data must be analysed with caution, as participants reasoning for these career choices were not elaborated upon. However, this does depict a pattern whereby the students earlier in their undergraduate careers, described their career trajectory as unknown more commonly than those approaching the end of their studies.

<u>"Top three" career choices of longitudinal participants</u>

Table 10 depicts the "top three" career choices of all the participants of the longitudinal study. The change in career choice column refers to a difference between the participants answer at the start of the study (1), and their answer at the end (2). X indicates that answer

(1) was no longer on the participants "top three" list, 0 indicates that answer (1) remained in the same position at the end of the study. A positive or negative figure in the change in career choice column indicates the direction and position that answer (1) moved in the "top three" rankings by the end of the study. Filled cells indicate the position of GP for ease of reading.

Participant	Year of study	Top three position:	Answer: Start of study (1)	Answer: End of study (2)
Dave	4	1	Venture Capitalism	Orthopaedics
		2	Surgery	Obstetrics
		3	Pharmaceuticals	Interventional Radiology
Sarah	4	1	GP	GP
		2	Oncology	Oncology
		3	Unknown	Paediatrics
Ahmed	4	1	GP	GP
		2	A and E	Sports Medicine
		3	Portfolio Career	Endocrinology
Lee	1	1	Specialist	Specialist
		2	GP	Research
		3	Research	GP
Lucy	5	1	GP	GP
		2	Paediatrics	Paediatrics
		3	Unknown	Public health
Nicola	4	1	Neurology	Neurology
		2	Geriatrics	Geriatrics
		3	GP	GP

Table 10: "Top three" career choices of longitudinal participants

Of the five students whom had initially listed GP as one of their "top three" career choices, GP remained in the "top three" of all five. GP only changed position for one student, a first-year male student at University A (Lee), who after six months of university felt that GP was now his third choice of career, rather than second.

4.4 Reflections upon early data analysis

After the early stages of data analysis, the data was considered in terms of insights it may provide into student's career decision making processes. Whilst the data was unsuitable for statistical analysis it provided students opinions early and late in their undergraduate training, and for those in the longitudinal study, these opinions at two points in time.

All students in their first year rated their likelihood of choosing a career in General practice as 5-6, whereas the students in their penultimate year had a wider variety of responses. This data suggests a change over the course of the student's Medical School career, which may have resulted in a change from a "uncertain" likelihood if General Practice was a suitable career for them personally, to a more fixed belief that it was, or was not, for them.

When applied to the longitudinal data, the rating scales showed little minimal difference in GP-likelihood between the start and end of the study for students at any stage of training, suggesting that these opinions may change over a longer timeframe than was used in this methodology.

The two mature students in the study indicated a high likelihood of choosing a career in General Practice Whilst not statistically significant, this is in keeping with the existing literature which suggests a higher proportion of mature students choosing a career in GP ("Undergraduate Medical Education in Scotland: Enabling more general practice based teaching: Final Report," 2019).

The "top three" data raised additional questions at this early stage in the research. Only 14 of the 24 students who completed the questionnaire considered General Practice as one of their "top three" career choices. However, no student had rated GP as lower than a three on the rating scale. Suggesting that whilst ten of the students were unlikely to choose General Practice as a career, no student had entirely ruled out this career path.

This stage of analysis raised considerations for the next steps of the work. Namely, if there was a process whereby students became fixed upon their chosen career during the process of their undergraduate studies, as this data implied more specific career intentions for those in their penultimate year of study.

4.4 Chapter Summary

Twenty-six participants enrolled in the interview and focus group stages of this study, and 6 participants continued into the longitudinal study. Half of the participants providing data were female, two participants did not provide any demographic data, the remaining participants were male. The majority 84.6%) of participants were under 25, and 48% of the students (80% of students enrolled in the longitudinal study) identified themselves as White British.

The intention of research objective one was:

1. To map changes in the likelihood of students to choose a career in General Practice over time at medical school.

Whilst this data is not suitable, nor intended, for statistical analysis; this data indicates that more students in later years of university were considering a career in General Practice, but also that these students had more polarised views than their less experienced counterparts.

There was minimal change in likelihood to choose a career in General Practice over the course of the longitudinal study, implying that any change in this likelihood may take place over a longer timeframe.

Chapter five: Narrative Analysis of six students

5.0 Chapter overview

In this chapter the narratives of the six students who completed the longitudinal study are presented. Experiences discussed by each student, and its impact upon their perception and career intention is explored. The extrapolated data is presented as a coherent plot for each student through the process of narrative smoothing, as discussed in the methodology. Push and Pull factors for General Practice are discussed throughout the narratives and diagrammatic representations of these Narratives are presented, to visually demonstrate experiences shared by the students (as discussed in methodology chapter).

For readability of these narratives, in this chapter participant codes have been replaced with anonymised pseudonyms.

5.1 Lee

5.1.1 Demographic Details

Participant code	1106
Year of study	1
Gender	Male
Age	<25
Ethnic group code	7 (White and Asian)
GP Likelihood (start of study)	6/10
GP Likelihood (end of 6-month study)	6/10
"Top three" Career Choices (start of study)	Practicing Specialist, General Practice, Researcher
"Top three" Career Choices (end of 6-month study)	Practising specialist, Researcher, General Practice

Table 11: Demographic details, Lee

Lee was born in East Asia and moved to the UK for University aged 18. At the time of the study, he was in his first year at Newcastle, having been in the UK for less than six months. He rated his likelihood of choosing General Practice as a career as 6/10 both at the beginning and end of the longitudinal diary process. Although in his "top three" career

choices, General Practice had become third place to Research, which will be elaborated upon in this section.

5.1.2 Experiences prior to commencing longitudinal study

Prior to commencing this study, in his primary interview, Lee described two main experiences which had influenced his perceptions of General Practice; experiences with his own GP, and conversations with his peers.

Own General Practitioner

Lee speaks fondly of his own GP, which he recalls as some of his first experiences of General Practice:

> *"…the GP that I'm thinking f I think it's the GP I usually visit back in (home country), for the past 10-15 years of my life and so the first image of a GP I immediately think of him and so he is always in a lab coat with a stethoscope and a desk with like medical books and all his other equipment."* Lee, first interview, line 23-26.

Lee's choice to describe his own GP as "typical" implies that this GP has been particularly impactful upon his perception of General Practice and General Practitioners.

Lee describes impactful relationship he shares with his GP:

> *"He really left a deep impression in me I guess because he's helped me get better a lot of times."* Lee, first interview, line 33-34.

This deep impression is elaborated upon by Lee, who says of his GP:

> *"So, I could tell he was a lot more careful, he examines you very, very carefully, very, very in-depth like properly and he doesn't rush anything he checks every single detail and makes sure his diagnosis is probably the most accurate one given the information he has got. You can tell he really puts in a lot of effort he doesn't just rush through and so I guess his meticulousness is really like…. and I guess that sorts of attracts me."* Lee, first interview, line 119-124

Lee's childhood GP is a clinician with characteristics to which he aspires. Lee's tone in his interview is fond, reinforcing the impression one gets of his admiration for this doctor.

The time given by the GP, and the social interaction between doctor and patient is reflected upon further by Lee.

"I'm more of a people person like sociable so I really enjoy the doctor/patient interaction. That's one of the main reasons I picked medicine in the first place because you get to interact with a lot of people so in addition to that you get to practise as a science, so it's the best of both worlds. So that's why, there is a lot of interaction involved and you are sort of like the first line of defence and patients come to see you first before they decide on the next course of action or before you propose to them the next course of action that you feel is best." Lee, first interview, line 107-112.

The prior two quotes demonstrate an ongoing reflective process in Lee. This process began prior to medical school, in his home life. He reflects upon and compares his desires for his future career; patient interaction, meticulousness and accuracy, with his experiences with his own GP. His early perception of General Practice is built upon these experiences, as is his understanding as to whether this career fits with his internal desires for his future role.

Within Lee's descriptions of the characteristics, he admires in his own GP, differences between General Practice in the UK and elsewhere in the world are raised. At this time in the study, Lee admires his GP for the time he is able to spend with his patients, skill in diagnosis with minimal investigations at his disposal, and the quality social interactions which they share. All of these are skills which he admires in a clinician. In his short time in the UK has not yet experienced General Practice, particularly, the usual 10 minute appointment time (Flaxman, 2015). Whilst Lee does demonstrate a level of understanding that GP will be different in the UK: His experiences at this stage have not given him a complete understanding of UK General Practice. The changes in Lee's perception of GP and career intention can be followed through this section, as he experiences General Practice in the UK setting.

<u>Conversations with peers</u>

Prior to commencing the longitudinal study, Lee recalled conversations with his peers in which future careers were discussed. Although these discussions did not specifically focus on General Practice, Lee felt that General Practice was rarely mentioned:

"I've been asking around in conversations and people are like 'oh what do you want to pursue in the future as a doctor?' and you don't hear GP's (sic) popping up very often. If not at all." Lee, first interview, line 69-70

In comparison, students discussed their intention to pursue careers in hospital specialities with enthusiasm. Lee believes this to be due to his peers having a keen interest in those fields.

> *"… maybe they want to do neuro or cardio because they have a really keen interest in the field. But also, I guess sometimes people just have a negative perception of GP's I guess in some cases because GPs are like the jack of all trades."* Lee, first interview, line 84-87

Lee uses the phrase "jack of all trades", which is itself something of a double-entendre. The idiom "Jack of all trades, master of none", meaning one who dabbles in many roles but is an expert in none of these is clearly derogatory. However the shortened "jack of all trades" may also be used in a complimentary manner, to describe one who is an expert in many areas (dictionary.cambridge.org). Lee's meaning of this phrase appears to be more negative, given that it is in the context of a negative perception of General Practice. The perception that breadth of knowledge, in the case of General Practice, as opposed to depth of knowledge, in the case of hospital specialities, is less prestigious is something that was repeated in the diaries of other students later in this chapter. Some caution needs to be taken however, in the interpretation of this phrase. Lee speaks English as a second language, and has been in the UK only around six months, his knowledge of the subtleties of this phrase are uncertain.

Lee describes his peers as having a "keen interest" in particular fields, i.e., hospital specialities. But does not apply the same enthusiastic language to General Practice. This quote in particular implies a perception that one can have an interest in these "deep" specialities, but the broader knowledge required of General Practice may not foster such interest.

5.1.3 Experiences during the longitudinal study

Experiences of dissatisfied patients

Lee describes two incidents, in the first two months of the longitudinal study, in which a patient was brought to the university, to share their medical history. A commonplace event in which a patient will share the story and trajectory of their condition, whist students are invited to ask questions.

"The specialist told him was 'if you feel like you don't really feel like you need the medication you should just stop taking it and not listen to your GP'. So, I thought that kind of reflected badly on the GP in a way, I guess." Lee, diary entry 1, line 10-13

"He (the patient) wanted to go in to look for a GP to discuss about the chest pain and he made it very clear he just wanted to discuss about the chest pain and he was not really having any issues. But when he went in and explained the situation that he wanted to have a discussion the GP immediately turned him down saying that he did not want to have a look at him and immediately called an ambulance. So, I thought maybe the GP could have done something about it like, yeah." Lee, diary entry 1, line 15-19

With the benefit of reading these diary entries as a clinician, it is clear that the patient's perspective, may not have reflected the true clinical picture. Whilst it can be understood that the patient was dissatisfied, one can understand that there may have been clinical information not known by the patient, which led to the events described. However, as a first-year student, Lee has not yet developed a bank of clinical knowledge to draw upon, and therefore takes the narrative of the patient as the only description of events.

As such, Lee considers that these events reflect badly upon the GP, the GP is considered to have been criticised outright by the consultant, and to have disregarded the patient's wishes to discuss his chest pain. When listening to Lee's recordings, his disappointment and uncertainly is audible, and is reflected in his language. These criticisms of GP are in direct contrast to Lee's experiences with his own, inspirational GP, and the GP he visited earlier in the year, who he respected a great deal.

There is an awkward tone to these recordings. Given my own position as a researcher and a GP, this is understandable. Lee is aware I am the audience for his recordings, his language such as "I guess" feels somewhat reticent, and may indicate feelings stronger than he is willing to disclose at this time. This makes difficult listening for myself as a GP, hearing a student having a poor experience with a colleague is difficult, particularly when I feel there has been a misunderstanding around events that may have occurred.

A month later, Lee speaks with another patient at the medical school:

"He (the patient) mentioned that he didn't really enjoy the fact that the GP used a load of medical jargon when explaining his condition to him, and

that led to him not having much of a clue what he was having because he didn't understand any of the medical jargon that the GP was using." Lee, diary entry 2, line 8-11

Compared with his diary entry a month prior, Lee's language regarding this experience is clear:

"We have to view things from the patient's perspective and sort of be able to understand that what we are speaking might not resonate with them and we are going to have to slow it down and use some purer terms to help them understand the condition that they are having. Because it is their right to be able to know what's wrong with them and how we are going to proceed with the treatment plan." 1106, diary entry 2, line 18-22

Whereas the language in the prior recording indicated uncertainly around events, in this recording the language is clear. Phrases such as "we have to" and "it is their right", indicate a strength of feeling that was not present in the previous recording. Lee's upset at the situation is audible, he is dissatisfied that the GP has not spoken with the patient in a way he could understand.

In this recording Lee does not discuss how his overall perception of GP has changed, however when compared to his description of his own GP some months prior, the differences in tone are clear. In a four-week period, Lee's initial awkward hesitancy regarding events and criticisms of these clinicians has developed into a surety of events as explained by the patients, and vexation at the GP involved.

Reasons for this change are unclear. Two possibilities were considered. Firstly, that over the four-week time period, Lee has received teaching on communication skills. The Calgary-Cambridge consultation model is commonly taught in UK medical schools, and highlights the skill of providing understandable information to the patient, which can be used to share decision making regarding treatment (Denness, 2013). Knowledge of this consultation model, components of which are taught early in first year at his institution, may have resulted in a feeling of being competent in criticising his colleague.

The second possible explanation considered by this author, is one of a more personal nature. Despite not being discussed in the audio diary or debrief, this event may resonate with Lee on a personal level, perhaps an experience where he or a family member felt that they did not have their condition explained to them appropriately.

A GP visit with a friendly GP

At the midpoint of the longitudinal study, Lee submitted a diary entry regarding a GP visit. This was a one-day shadowing experience, in which all students observed a day in General Practice:

> *"What really, really gave me a good impression was how she was so, so friendly to every single patient. And she had so many patients throughout the day, I think she met about twenty patients from about 10am to about 4pm and what really surprised me was she actually remembered so many of them. She could tell me about their symptoms before they even came in, she could tell me about their habits, some of their personalities. I think that really gave me such a good impression about GPs in general."* Lee, diary entry 3, line 9-14

The communication and relationship between the GP and her patients in this case, left a positive impression upon Lee. Although he does not describe, at this point, a change in his career intention, he indicates a positive impression upon his perception of GP, through his experiences with this colleague.

Whilst previously describing GPs as a "Jack of all trades", with a possible negative impression of being an expert in no area, Lee encounters his GP supervisor dealing with a situation where she does not know the details of a medication:

> *"Also, when it comes to the prescribing of medicine when she isn't really sure about the regulations or the dosage, she will just look it up in a book or on a website and again, that just shows she is being really honest with the patients and I think it's a really good trait to have in GP's."* 1106, diary entry 3, line 21-23

Whilst this experience may not have disputed Lee's concerns over the depth of GP knowledge, he nonetheless sees this experience as positive, admiring his supervisor's honesty with her patients, and wish to prescribe correctly.

In his debrief interview, Lee described how these GP visits early in his undergraduate training were valuable to him:

> *"I think the GP visits really helped quite a bit because I don't come from the UK so I don't really know how the GP consults work, I don't know the health care system that much. So, it really gave me that understanding. It also showed just how different the GP consults are compared to back*

home in (home country) and so it's really been quite impactful." 1106, debrief interview, line 109-112

Whilst these visits have offered Lee experiences of General Practice in the UK, they highlighted how UK GPs were different to his inspirational GP in his home country. Whilst these visits therefore had an impact, they reflected the reality of UK General Practice, which did not have some of the features which Lee had found desirable in his interactions with his own GP.

Whilst being initially complimentary regarding his GP visit, upon reflection in his debrief interview, Lee viewed this slightly differently:

> *"The GPs don't really have time to take care of us that much because the patient is always right in front of them. They are always having a consult with the patient and just having one or two sentences with the shadowing medical students. But in the hospital the consultants or the specialists that you shadow they will give you a really good explanation behind the scenes before they go in to speak to the patients….*
>
> *…all the scans, the histories and everything, we get to see everything. The consultant or the specialist will talk us through everything from start to end and I find that really interesting."* Lee, debrief interview, line 72-76 and 81-83

The above highlights the positive impact that quality clinical teaching had upon Lee's enjoyment and interest in a speciality area. Whilst this may not directly result in a desire to pursue that career, it has increased his engagement with the subject area. This also highlights an expectation, a value in active learning opportunities in which the teacher engages with the student, over and above the passive or self-directed learning opportunities which were presented in Lee's General Practice visit. Although Lee does acknowledge that in his experience the GP was busy with patients, the impact of this experience remains the same.

<u>A disagreement over management</u>

Following the Christmas break, Lee submitted a recording of an event in which he had disagreed with the management of a GP during a GP visit. In this case a patient had attended with a very high blood pressure. From Lee's studies, he believed the most

appropriate course of action was to send the patient direct to the hospital, whereas the GP performed an examination, and then allowed the patient to go home with medication.

Lee questioned the GP's decision, and identified a concern regarding communication between primary and secondary care:

> *"She made this comment that 'oh if you admit her to the hospital the specialist or consultants are just… going to ask the GP 'why did you admit her when all we can do is prescribe medication?' and that's something the GP herself can do. So, I think that was in the back on her mind, that might have been why she didn't admit the patient."* Lee, debrief interview, line 246-250.

Lee identified that the GP made a "judgement call", assessing the patient's risk of having an adverse event, and used her clinical experience in her decision making. However, Lee remained in disagreement with this course of action, considering that there were other factors at play in this decision:

> *"Because from the way she (the GP) spoke about it from past experiences it seems like she got some trouble with the higher ups in hospital for sending patients in like this… It's really not easy because you're kind of like sandwiched in between the patient's expectations and needs and the higher ups in the hospital.* Lee, debrief interview, line 290-291.

Interestingly, Lee identifies "higher ups" in the hospital. Whilst unclear if he is directly referring to consultants or management, there is an implication of a hierarchy, in which Lee sees the hospital as superior to community medicine. In this case the GP had either initiated or reinforced this perception, though likely unintentionally. Her explanation focussing on criticism, rather than her own expertise, or patient experience and preference further implies a subservience to the hospital team.

We also see that Lee is dissatisfied with this explanation; it has not adequately addressed his concerns as to why guidelines have not been followed. Whilst clinical judgement and experience may lead to a decision to deviate from published guidance, this decision-making process was not shared with Lee. Whilst this experience could have represented a valuable learning point in clinical decision making, it has instead resulted in a negative experience of General Practice, and a feeling of inferiority of the speciality.

We continue to see a development in Lee's perception of General Practice, as he experiences it from the side of a doctor in the UK. His idyllic view of GP from his previous personal experience is challenged by the dissatisfaction of patients he speaks to, and complex relationships between primary and secondary care.

Experiences with Traditional Chinese Medicine

During his debrief interview, Lee discusses his experiences with Traditional Chinese Medicine (TCM). He explains that in his home country, he would commonly visit a TCM practitioner for musculoskeletal injuries. In this case, following his time in the UK, he was able to compare his TCM consultation with that of a UK GP:

> *"There wasn't any structure in the consult. I think that's something the GP's, in the UK especially, do very well. Like we are taught a lot about this enriched framework, you don't see it in practice all the time, but in every consult, you can see this clear sort of path that the GP's are following. That's very different to what this traditional Chinese medicine physician I had was doing."* Lee, debrief interview, line 332-335.

Whilst many of Lee's recordings seemed negative, his time with GPs in the UK had clear impact which he had applied to his experiences at home. This comparison reflected positively upon his perceptions of General Practice. Through experiencing the consultation through the patients' eyes, he was able to understand the skill involve within the GP consultation.

Positive clinical experiences in hospital

It was not only experiences with GP which influenced intention to pursue it as a career. In his debrief interview, Lee was asked why he felt he was now more likely to pursue a career in a Hospital Speciality, or research.

> *"I think it's not so much a negative perception towards the GP's but more of what I've learnt in med school. Like I really enjoy the science behind it, I really enjoy the molecular biology especially, like the science aspect of medicine."* Lee, debrief interview

Lee believes that his experiences in hospital medicine have reinforced that he would be best placed to pursue these scientific interests in a hospital career:

"It's like my hospital visits. So, I managed to shadow some specialists and the way they are variable to like diagnose really, really in-depth and really, really complicated diseases interest me quite a bit. So, it always amazes me how they can look at the CT scan and 'oh this guy has this' so it really intrigues me and I'm really amazed by that still, how they are so good at what they do." 1106, debrief interview, line 51-55

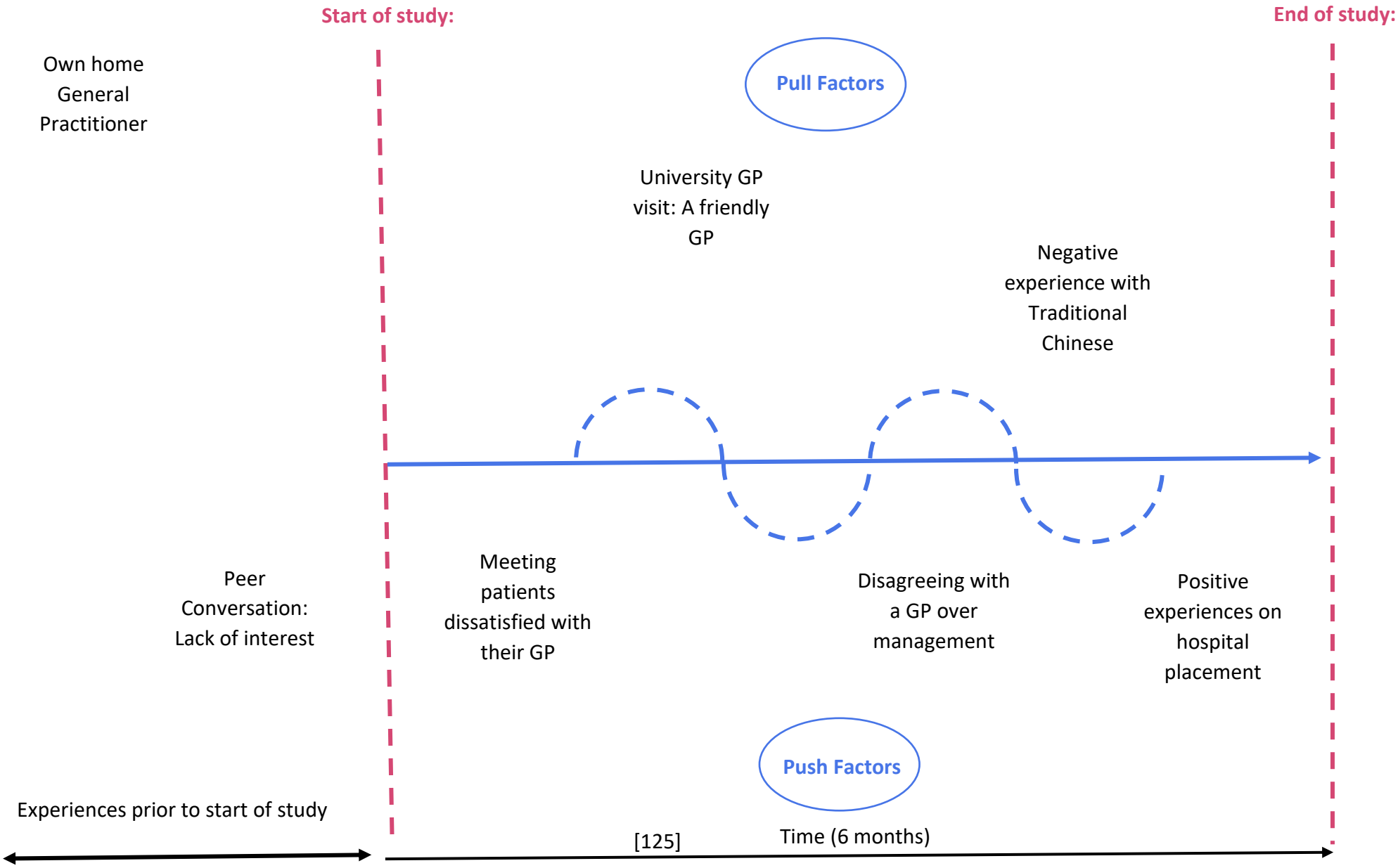
As previously discussed, in his entries regarding breadth compared to depth of knowledge, Lee has found a personal attraction to the deeper understanding of diagnoses, and the skills required to gain specialist understanding of one area. Whilst superficially respectful of the roles and skills of the GP, he does not consider their skills with the same level of amazement as he does the hospital physician.

5.1.4 Lee: A journey from overseas, to the first year of medical school in the UK

Lee is the only first year student to have completed the longitudinal process, and, as such, gives a unique insight into the process of transition from a "lay person" to a medical student. Lee's prior experiences with medics were his own family doctor in his home country, who shaped his perceptions of the General Practitioner. We see that over the course of the study he comes to experience placements with UK doctors, who challenge his pre-medical perceptions.

Figure 16 is a pictorial representation of Lee's experiences and his likelihood of choosing a career in General Practice. The dashed red lines represent the start and the end of the study, and the solid blue line his likelihood score of choosing a career in general practice. Pull factors toward GP are represented above the line, push factors below.

Figure 15: Pictorial representation of Lee's push and pull factors over the course of the longitudinal study



5.2 Sarah

5.2.1 Demographic Details

Participant code	1205
Year of study	4
Gender	Female
Age	<25
Ethnic group code	1 (English, Welsh, Scottish, Northern Irish or British)
GP Likelihood (start of study)	8/10
GP Likelihood (end of 6-month study)	8/10
"Top three" Career Choices (start of study)	General Practice, Oncology, Unknown
"Top three" Career Choices (end of 6-month study)	General Practice, Oncology, Paediatrics

Table 12: Demographic details Sarah

Sarah was in her fourth year of study when she participated in this research. She was born in the UK and began university at age 18. She considers General Practice to be her career preference, and does not feel that her likelihood of becoming a GP increased or decreased throughout the study. Although, after the six-month process, she had begun to contemplate a career in paediatrics, she still felt that she was most likely to choose General Practice after completing her foundation training.

5.2.2 Experiences prior to commencing longitudinal study

During her interview, Sarah discussed three experiences which she felt were impactful upon her perception of General Practice and General Practitioners.

<u>Pressure from university</u>

Sarah identifies a lecture early in her undergraduate education, during which she felt there was a pressure to choose a career in General Practice:

> *"In the first week of Medical School, the first thing in first year we were told that fifty per cent of us would become G.P.s, and I just thought that's*

ridiculous, no I don't want to be a G.P., I want to be something… weird, and wonderful." Sarah, first interview, line 39-41.

Sarah identifies a quote, that 50% of students will become GP's. A quote, that is repeated by other students within this study, and will be explored further in the analysis of narratives.

This quote incites strong emotions in Sarah. She feels a sense of rebellion surrounding her future career and later explains:

"I'm quite stubborn, and quite independent, and I like to make my own decisions and I don't really like being told what to do. So, being told that you have to be a G.P. makes you think, oh no I'm not going to be a G.P., I'm going to be something else and prove you wrong." Sarah, first interview, line 44-47.

Sarah does not wish to be pushed into a career as a GP, she wishes to choose her career based on her own experiences and decisions. As such this pressure into the career of General Practice from the university, results in an opposite reaction from Sarah.

Sarah's language is telling, "*weird and wonderful"* implies an unusual and compelling career, which as a first year, Sarah saw as being different from a career in General Practice.

<u>Origin of Stereotypes</u>

Sarah identifies a stereotype, which she feels she developed in first year, of General Practice:

"The, sort of, stereotype, you get as first year, in my head, of a G.P. and probably with quite a lot of other people. To start off with a G.P. is a really good career for females, and I know that there are a lot of male G.P.s but I think that's one of the biggest stereotypes around about G.P.s that it's a job for females. Maybe it seems a bit dull because, or another stereotype could be that G.P.s a quite boring job and not very varied" Sarah, first interview, line 21-27.

This stereotype is reflected in quotes from other students within this study. Whilst labelling this stereotype as one which is "*in my head"*, Sarah struggles to identify a particular source of this perception:

"I would say sometimes I've come across some G.P.s that fit the stereotype… it was maybe a stereotype that I use a lot more in my head with this." Sarah, first interview, line 26-28.

Like Lee, these quotes were in response to the request for Sarah to describe a GP. Unlike Lee however, Sarah does not draw upon a particular experience or person to describe a GP, her initial thoughts are of her own internal stereotype. The above quote from Sarah implies that this perception of General Practice, is one that was developed early in her experiences. Subsequently, she has had some experiences with GP's which reinforce this stereotype, but also, presumably, many who do not. This short conversation with myself became very reflective for Sarah, there were many pauses, and a questioning tone to the recording. The second quote suggests a questioning of Sarah's own stereotype, and a realisation that her own experiences do not completely fit with this perception. The process of the research interview encouraged this reflection, leading one to question if this realisation would have occurred independently.

Enjoyment of the work of General Practice

Sarah's desire to become a GP has increased since her first year at medical school, at the start of the study she believed this was due to her enjoyment on placement:

> *"It's the only place in the past year, in third year, that I woke up in the morning and thought 'oh my god, yes it's G.P!"* Sarah, first interview, line 58-59.

This positive experience was based on a number of factors:

> *"Then I decided to do an SSC in this term and everyday I've absolutely loved it, and I just love the whole community atmosphere and I just feel like it's a bit more homely and really getting to know patients and following a career for a long period… (I) was being given quite a bit of responsibility and independence whilst being on placement, being able to work on our own, but possibly getting broader constructive feedback was a really positive experience, and the G.P. that we were working with was a really, really good G.P., highly respected, and highly intelligent and he was a really good role model for us."* Sarah, first interview, line 61–63 and 67-70.

This positive experience was one which was actively sought by Sarah as a student selected component, so may not reflect the placement experiences of every student. Typically, students choose an SSC in which they have an existing interest, as was the case with Sarah. Therefore, whilst this placement reinforced her positive perception of a career in General

Practice, it could be considered unlikely that Sarah would choose an SSC which would challenge these perceptions.

Nevertheless, the opportunity to have independence and responsibility on this placement, "practising" at working as a GP, allows Sarah to reflect upon if this work is something which holds appeal for her. Through this role play, Sarah is able to reflect upon how she may feel in this role in the future, and extrapolate a belief that this would be an enjoy longer term, and reinforcing General Practice as a suitable career choice for Sarah.

5.2.3 Experiences during the longitudinal study

Sarah submitted her diary entries over a six-month period, and describes the following experiences.

<u>Discussing General Practice with a senior colleague and friends</u>

In her first diary entry, only two days after her interview, and whilst still on her SSC in General Practice Sarah has a conversation with a GP on her placement about the pros and cons of a career as a GP:

> *"He said that being a G.P. is really good for your life work balance, it kind of more made me want to be a G.P. I know I have to be cautious with what people say because sometimes they're a bit biased but that is definitely an advantage, so yeah that's something to think about."* Sarah, diary entry 1, line 8-10.

Whilst Sarah retains some scepticism about bias from this source of information, potentially due to his role as a GP, and her prior knowledge about the "push" for medical students to become GPs, she does consider this work life balance an advantage.

Four days later Sarah discusses her SSC with her friends at swimming club:

> *"Two of them (friends) who want to be in Anaesthetics… they couldn't really understand how I could enjoy a G.P. placement because they've previously not enjoyed their placements which was interesting."* Sarah, diary entry 2, line 13-15.

Sarah goes on to reflect upon how this conversation made her consider her enjoyment of her placement:

"I appreciate how much I've learnt and experienced… it's definitely made me more aware of the role of a G.P. and the day-to-day work that a G.P. does, and definitely has made me want to be a G.P. more and that conversation just reminded me, or highlighted that to me which was really nice." Sarah, diary entry 2, line 17-20.

Sarah and her friends have significantly different opinions on their General Practice placements. There are two possible reasons for this difference in opinion: Firstly, that Sarah and her peers had significantly different placement experiences, possibly with less opportunity for independent working, and as such Sarah's peers found this placement less enjoyable. Alternatively, Sarah and her peers may have had broadly similar placements, and Sarah's peers may have not had a personal interest in the type of work they experienced.

Of course, these two possibilities are actually most likely to occur in conjunction. No two students will experience exactly the same placement, so whilst Sarah may have had a placement which was particularly fulfilling, her personal interest in the nature of the work reinforces her appreciation of the placement.

Similarly, to her interview, the process of external reflection, explaining and exploring her feelings with another, causes Sarah to consider and further appreciate her experiences. An appreciation which was highlighted to her through this reflective discussion. It was not necessary for Sarah's friends to agree with her, for her to achieve this appreciation. However, the implication from this diary entry was that this was a respectful and open discussion, Sarah was with trusted others with whom she felt she could share her experiences freely.

<u>A friend of a friend, and social services</u>

Sarah describes a complex situation, after a discussion around her General Practice placement with her non medic friend.

Sarah's friend explains that a friend of a friend was reported to social services after attending a GP appointment with an infant in a dirty nappy, the friend of a friend had explained the dirty nappy as being due to having to wait 45 minutes to see the GP. Following this conversation, Sarah's friend had been late for their own GP appointment with their daughter, due to wishing to avoid a similar situation and changing their daughter's

nappy on arrival. In this case the receptionist had prevented him from attending his daughter's appointment due to being late.

Sarah describes her friend's reaction, and her own feelings around this situation:

> *"He was just expressing how angry he was that G.P.s can be forty-five minutes, up to an hour late behind schedule and yet you have to wait for them. But if you're three minutes late you miss your appointment and get scrutinized for it and I think this whole conversation just made me, feel a bit upset and angry for him, and his friend who've had negative experiences of G.P"* Sarah, diary entry 3, line 16-19.

A number of interesting points are raised through this quote. Initially I was struck by how, during this discussion with a friend, the case that was raised was such a negative one, despite, presumably, the patient in question having had multiple positive encounters with their GP in the past. The power of one negative encounter greatly outweighed those previous positive encounters.

As was also discussed in Lee's narrative, there is a possibility that this narrative may not represent events as understood by the doctors in question. Clinically, a single dirty nappy is unlikely to result in a referral to social services. It may be that the "friend of a friend" has left out other key information, or that in the telling and re telling this story has been elaborated upon, or that, like in the case of Lee, clinical information was not understood by the tellers, and as such their narrative was not congruent with the narrative of the clinicians involved.

Sarah's reflection upon this conversation was as follows:

> *"I felt saddened that patients, or members of the public could feel this negatively about G.P. as a profession, and it made me, kind of, apprehensive to admit in the conversation that I wanted to be a G.P. at the moment and it also, sort of, dampened my desire to be a G.P. probably out of fear of being scrutinised" Sarah*, diary entry 3, line 20-22.

These feelings of sadness about a profession one cares about being called into disrepute are understandable. When compared to diary entry one, however, the previous scepticism within Sarah's reflection is missing. This is clearly an emotive case, and perhaps this has over-ridden Sarah's highly reflective nature as demonstrated in her other entries.

<u>Attending a conference</u>

During the study, Sarah attended a student conference, hosted by the Royal College of General Practitioners. She had been encouraged to attend this conference by peers who also had an interest in General Practice. Sarah describes an overwhelmingly positive experience:

> *"There were some really inspiring and interesting talks from a lot of experienced G.P.s… We had talks on G.P.s who look after homeless people and asylum seekers, and G.P.s who focus on health inequalities and managing those, and also we had a talk from a G.P. who specialises in Sexual Health, and this emphasized to me that G.P. is very flexible, and that you can shape your career into what you want it to be and to help those who you want to help."* Sarah, diary entry 4, line 6-11.

Sarah closes this sentence with an enthusiastic statement regarding "helping" patients. Other students when talking about other careers, as can be seen elsewhere in this chapter, have discussed ideas such as interest or excitement when considering their preferred career. Sarah's focus, and driving force in choosing GP as her preferred career, is entwined in this desire to help. Her perception of GP fitting with this driving force is evident in this statement regarding shaping a career, with a focus on helping particular groups.

She goes on to say:

> *"It was also quite inspiring to hear from very experienced, prestigious G.P.s from across the country who'd showed us what they'd done as G.P.s and what differences they'd made to certain people, and patients which was really inspiring* (sic)*"* Sarah, diary entry 4, line 13 to 16

Sarah repeatedly uses the word inspiring in reference to the GP's, and talks they had presented. This is the first time she has used this word to describe a GP. She also considers these GP's to be "prestigious", something which has not been heard in other diary entries, either from herself or other students. Whilst these inspiring and prestigious GP's have given Sarah insight into the possibilities of a career in General Practice, aspirational colleagues were not necessarily seen in day-to-day General Practice placement. After some time to reflect, during her debrief interview, Sarah had considered this and answered the following when asked about meeting inspirational GPs at the conference:

> *"I think it would be hit and miss with your placements as to whether you get a GP you can see is (*sic) *inspirational. But then that's also up to your*

interpretation if you want them to be an influential person in your life then you'll let them." Sarah, debrief interview, line 41-43

When compared to the GP's specialising in sexual health, or care of the homeless, the day-to-day role of the GP sounds less exciting and glamourous. Whilst Sarah finds the conference GP's to be inspirational, in the exciting and specialised work that they do, she does not discount being inspired by an everyday GP. This implies that inspiration is personal, a choice that is made to be inspired, and to aspire to be like, a senior that one has encountered.

Sarah summarises her time at the conference thusly:

"They all stood out as very inspirational GPs to me. But I think that could be the way the conference is designed is to try and get you to be influenced, like inspired" Sarah, diary entry 4, line 46-48

Sarah reflects that the GP's she encountered were inspiring, but understanding that the purpose of this conference was to encourage students who wished to follow a career in General Practice. She considered these positive experiences carefully, possibly due to her belief highlighted in her initial interview, that she is being "pushed" toward a career in General Practice. This is in contrast to her easily acceptance of the prior discussed negative experiences.

<u>Denigration of General Practice by senior colleagues</u>

In her final diary entry, Sarah describes a situation in which she experienced denigration of General Practice by the surgical team in a breast clinic:

"They said that G.P.s often refer patients with little, or no clinical information regarding the history and that often G.P.s don't do Breast examinations and all of the best Surgeons was, sort of like, laughing with each other at how ridiculous that can be." Sarah, diary entry 5, line 6-8.

Sarah's discomfort when discussing this case was audible, understandable when considering this critique is aimed at the career, she has chosen for herself. Rather than the simple denigration which was discussed in a previous diary entry, this entry is more mocking, and after reflection Sarah's anger over this is palpable:

"I just got a bit annoyed at him really and it was just a bit pathetic" Sarah, debrief, line 240 -241.

Sarah describes this denigration of General Practice when asked what she thought was her most negative experience over the course of the study:

"I think the way people can say nasty things about GP's, the way people can speak about GPs in a derogatory way and undermine GP as a profession. Because I am very much influenced by peoples feeling and thoughts and stuff and for me that was very difficult." Sarah, debrief, line 234 to 236.

Sarah does feel she is influenced by the opinions of others, and shows some distress at criticisms of General Practice from friends and colleagues. Her response to the criticism by her non medic friend is different to her response to the mocking consultant. In the former, she was embarrassed and upset, but took great heed of her friends' opinions. In the latter, she shows anger and disregard for the opinion of the consultant breast surgeon.

Two theories were considered to explain the difference in credence given to these statements. Firstly, Sarah's relationship with her non-medical friend is close, a trusting relationship, in which both parties consider the others' opinions to be true. Whereas, the consultant, while her senior in training, does not share this trusting relationship. Sarah is more able to discount the statements of the consultant, which are not aligned with her truth, as she is more able to critique those with whom she does not share a close relationship. Whereas the opinion of her close friend is considered and reflected upon as a trusted source, and as such is integrated into Sarah's truth.

My other theorised explanation concerns the nature of the discourse. Whilst the discourse with the friend was critical, Sarah's account suggests a respectful discussion, with participants who can equally share ideas. Whereas in the case of the consultant, a senior colleague, this discourse was one sided and mocking. Whilst a respectful discussion promoted reflection and acceptance, mockery from a powerful senior promoted feelings of resentment, for which Sarah feels she has no recompense.

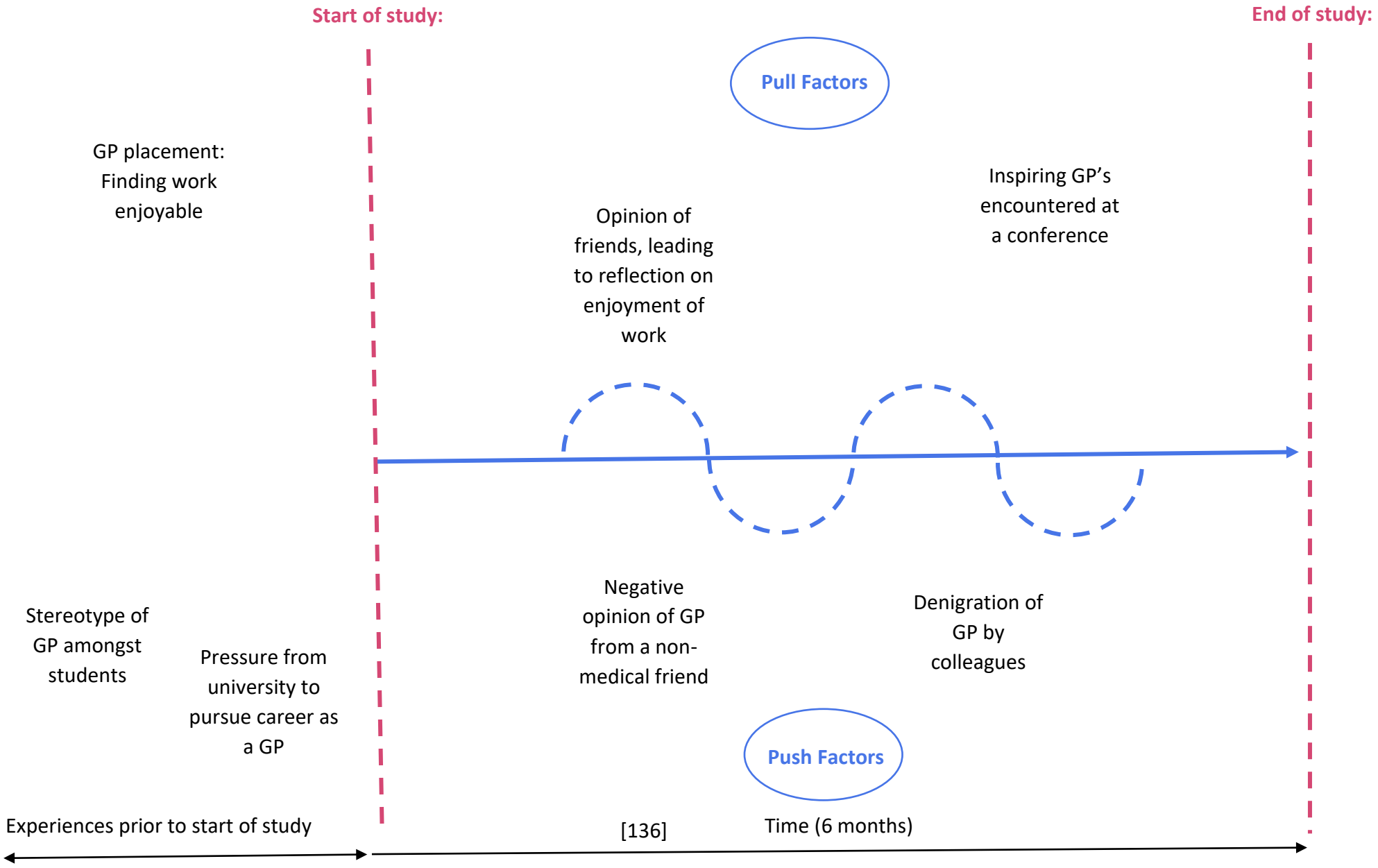
In actuality, both these explanations may go some way to explaining the difference in acceptance of the opinions of others, experienced by Sarah in these two diary entries.

5.2.4 Sarah: Meeting inspirational seniors, and experiencing denigration

During the study Sarah has had multiple positive experiences on placement and in conferences. This has been balanced with attempting to understand denigration of General Practice by others, and reflection upon how the opinions of others have changed her own perception.

Figure 17 is a pictorial representation of Sarah's journey before and during this longitudinal process.

Figure 16: Pictorial representation of Sarah's push and pull factors over the course of the longitudinal study



5.3 Ahmed

5.3.1 Demographic Details

Participant code	1206
Year of study	4
Gender	Male
Age	25-35
Ethnic group code	1 (English, Welsh, Scottish, Northern Irish or British)
GP Likelihood (start of study)	8/10
GP Likelihood (end of 6-month study)	8/10
"Top three" Career Choices (start of study)	General Practice, Accident and Emergency, Portfolio Career
"Top three" Career Choices (end of 6-month study)	General Practice, Sports Medicine, Endocrinology

Table 13: Demographic details Ahmed

Ahmed is a student in his penultimate year of study. He was born and lives in the UK, and is the only student in the longitudinal study to have studied a previous degree. Prior to medical school Ahmed had a career in the business sector. His preferred career choice is General Practice, and he feels he made this decision early in his undergraduate career. Ahmed does not feel that his likelihood of choosing a career in General Practice has changed throughout the course of the study.

5.3.2 Experiences prior to commencing the longitudinal study

<u>Desire for work-life balance</u>

Following his previous work in a competitive, business work place, Ahmed identifies that a favourable work life balance is important to him when choosing his future career:

> *"My personal choice behind wanting to become a G.P. is a strategic one. I think I'm being a bit more realistic than, you know, I may have fewer commitments and time now but that doesn't mean that in five years' time it's going to be the same."* Ahmed, first interview, line 20-29.

Ahmed goes on to further explain how he feels a career in GP would offer him the autonomy to choose the volume of work he undertakes:

> *"The ability to run sessions and be able to work a certain number of days a week rather than have to cram every moment of your spare time into work, and I don't hold any guilt towards that because I'm turning up for work, I'm serving patients, I'm treating patients but whether I work myself to the bone, or not, I'm still adding value to the economy. I don't think I owe the world anything beyond that"* Ahmed, first interview, line 38-42.

While analysing of this part of Ahmed's interview, a number of features became apparent, which did not immediately make themselves clear to me during the discussion:

It is clear that Ahmed, having come from a competitive business environment, wishes to have a more flexible career, in which he has control over his workload. However, Ahmed does not identify the source of his belief that General Practice will offer such control. Ahmed's belief in this truth is absolute, repeatedly referred to in his future career plans. However, his acceptance of this truth is without a background of real-world experience.

The above quote, at face value, implies that General Practice offers Ahmed a path where he will not be worked *"to the bone"* (first interview, line 41). This seems to suggest an unspoken perception that a career in hospital medicine would be significantly harder than a career in General Practice, implying longer hours and a more intense workload.

Later in this interview, Ahmed mentions in passing a colleague who previously worked in Acute Medicine, and is now a GP. He mentions a slight worry that she was *"working far harder and is more stressed as a GP"* (first interview, line 97-98). Despite having this real-world example of a senior colleague who does not consider GP to offer the flexibility that Ahmed desires, this worry is momentary, and pushed aside in favour of Ahmed's previously held perception: That hospital medicine demands longer hours and offers less flexibility.

Ahmed is also quick to explain, without questioning or prompting, that he feels no guilt for choosing this, perceived, flexible, career path. Whilst in his interview, he is scornful of those who would choose long work hours due to "*pride and ego"* (first interview, line 26), his language and tone is conflicted; suggesting an awareness of criticisms that may be levelled against him for pursuing this, perceived, easier path. Ahmed's suggestion that he doesn't *"owe the world anything beyond that"* (first interview, line 24) also suggests a wider,

unspoken societal belief that the doctor does "owe" society more than Ahmed is willing to give. An implication that the doctor should work to the detriment of their own happiness, to serve the communities in which they serve. As a result of this, Ahmed has felt it important to highlight why he has put his interests before that of "*the world"*, and, it is important to note, Ahmed feels he is in a minority for doing so.

Opinion of colleague prior to starting Medical School

In his debrief interview, Ahmed recalled a conversation with his senior, when he worked in the business sector:

> *"I said 'I'm going to study medicine' and the thing my boss said to me was 'Oh don't become just a GP, you need to go and specialise'."* Ahmed, debrief interview, line 93-94.

The phrase "Just a GP" is one which has previously been mentioned in the literature, a phrase which encapsulates the concept of the GP being a "lesser" doctor than those who train in a hospital speciality (Alberti et al., 2017a; Wass and Gregory, 2017). Ahmed goes onto explain how this comment stayed with him, not because it dissuaded him from a career in General Practice, but because he knew his boss to be a *"very driven, very hardcore person"* (debrief interview, line 94), and assumed, were she to choose to study medicine, she would wish to have a career with high prestige.

During this line of questioning, Ahmed draws parallels between the world of medicine, and the world of finance. He goes on to explain how within his previous workplace there was a sense of pride in staying late, and exposing oneself to large amounts of stress:

> *"You don't want to be seen as the person who isn't stressed, and clocking off at 5 o' clock is not done, last person who leaves the office is the winner (sic)"* Ahmed, debrief interview line 112 – 113.

The similarities between his colleagues in the finance sector, and Ahmed's description of the *"pride and ego"* (first interview, line 26), of those undertaking speciality training are hard to miss. His interview and debrief answers infer a wish to be disassociated with this way of working, he desires a career with flexibility and less intense working hours. Ahmed's driving force toward medicine, and ultimately GP, was equally one which drove him away from his career in finance.

Ahmed has developed a perception of General Practice which hinges upon it offering the flexibility he is seeking within his working life. The converse of this flexibility is however a perception of lower prestige, a perception which Ahmed himself perpetuates, through his acceptance and own explanation of his seniors' career advice.

Whilst Ahmed does not want long hours and high stress, his statements associate this with prestigious and driven colleagues. As was seen in the previous section, he feels it necessary to explain why he no longer wishes to be part of this way of working.

Ahmed's understanding hinges upon the belief that General Practice offers flexibility, lower stress, and easier hours. A concept that, at this time, is based not upon any practical experiences, but the societal understanding of Ahmed and those around him.

In spite of the above considerations, we discussed Ahmed's senior colleague again in the debrief interview, probing particularly into the impact these comments may have had upon his career intention:

> *"I don't derive my sense of identity from what other people think of me. Everyone does to an extent, but it doesn't weigh on me so much that I would want to change my career path just to satisfy the perceptions of people I don't care about. So, I would rather live a better life and be thought of as just a GP"* Ahmed, debrief interview, line 144 – 147

In the first line of this quote, Ahmed appears to contradict himself, asserting that he does not gain his sense of identity from the thoughts of others, but then correcting himself, after a pause, and considering that he, like everyone, is influenced a little by the thoughts of others. Ahmed's initial response is fast, defensive, and suggests this initial thought is how he would like to be seen by the outside world, as a student who chooses his own way, despite the opinions of others.

After a short pause, Ahmed corrects his statement, describing "everyone" rather than using a first-person pronoun. Whilst "everyone" is inclusive of himself, the change in pronoun is more diffuse, less intense than his previous statement. This may suggest less intensity of feeling following a short reflective pause, or less pride in the statement, implying some embarrassment or shame in allowing the opinions of others to have an impact upon one's perceptions.

Ahmed clarifies that although he feels that the statement of his colleague does have an impact, he does not feel that he would change his career path in light of this: Reflected in his high likelihood score of choosing a career in General Practice. He finally reiterates his deep-rooted perception of General Practice offering a better life. Ahmed's use of the phrase "just a GP" mirrors the language used by his senior. However, Ahmed's tone in the audio recording did not imply the use of "quotation marks" around this phrase. "Just a GP", has become common parlance for Ahmed, although he has previously implied dissatisfaction with this phrasing.

Practical considerations

In addition to Ahmed's beliefs regarding the control he would have in a career in General Practice, he highlights more everyday concerns, for which he feels GP would offer a solution:

> *"I run my own business, I don't want to give that up doing a specialist training programme, if I were to go into Surgery, I know that I would have to say goodbye to that"* Ahmed, first interview, line 34-36.

> *"The other thing is the physical demands, I'm not getting younger and, for example, Surgery has a shorter shelf life on your body, and more of a demand on your body. I've probably got a Disc Herniation, so I don't want to be standing awkwardly for the rest of my career."* Ahmed, first interview, line 64-66.

Whilst these practicalities are discussed after, and with less vigour than Ahmed's earlier perceptions regarding work life balance, they remained worthy of his consideration.

Ahmed highlighted in his pre-study questionnaire a desire for a portfolio career, and he perceives he can continue to run his business whilst working as a GP. This, of course, hinges on his previously identified perception, the source of which is unknown, that General Practice offers the flexibility he desires.

Health problems are, understandably, taken into account by Ahmed when considering General Practice as opposed to other careers. Whilst Ahmed does not identify the source of his perception regarding GP being easier to manage with his back pain, he may have had first hand experiences, such as experiencing pain when standing in an operating theatre.

This indicates an ongoing reflective process, in which Ahmed compares practical considerations for his future career, against his developed perceptions.

Negative work experience with a GP

Ahmed describes a negative experience, prior to medical school, in which he shadowed a local GP:

"Before I went into Med School, I did some shadowing with a family friend who's a G.P. and he, as a person, was quite depressed, very laconic in the way that he would approach his patients, and his life, very depressive outlook, and just had a negative outlook towards being a G.P. and going into Medicine." Ahmed, first interview, line 85-88.

Whilst Ahmed did give this experience credence, and did feel that it produced a more negative perception of GP, he continued to reflect, and became questioning of this family friend's opinion, noting that it was in keeping with his pessimistic personality. Ahmed felt that later positive experiences with a GP supervisor on placement reinforced his positive perceptions of General practice, suggesting that these positive experiences enabled him to disregard those which were more negative.

5.3.3 Experiences during the longitudinal study

Meeting a cardiothoracic surgeon turned GP

In his first diary entry, Ahmed describes a discussion with a senior colleague, who had previously worked as a cardiothoracic surgeon, whom Ahmed labels as *"A bit of a high flier"* (1206, diary entry 1, line 4). The surgeon had chosen to re-train as a GP after seeing a colleague have a major stroke after performing a procedure. Ahmed found that this GP's perception of the positives of General Practice mirrored his own:

> *"I was speaking to him and saying 'am I the only insane one here? What is this masochism that everyone seems to have with looking for a job that doesn't reward necessarily financially, or in terms of hours, or anything' and he was like 'no, you're a hundred per cent right I'm in the same boat and I just put myself through it because everybody else was and I get a bit of a sick rush from doing this stuff, from operating on Heart Valves and so on?"* Ahmed, diary entry 1, line 10-15

For the first time in the study, Ahmed has his perception of General Practice supported, by a colleague who has experience of GP. Both men maintain the perception that the "difficult"

career in cardiothoracic surgery was more exciting, and also tied to the concept of being a "high flier"; implying that there is no such associated between being "high-flying" and a GP. The GP highlights that feelings of an adrenaline rush, and "keeping up" with other colleagues kept him upon a career which he felt was detrimental to his well-being; an enthusiasm with which he and Ahmed do not speak of General Practice.

Whilst superficially, this discussion seems particularly complimentary to General Practice, there is an insidious undercurrent. There is an implication that one chooses their career in General Practice for their own well-being, and as such loses the excitement and prestige of other careers. Ahmed has reflected upon his previous career, and decided upon a less-exciting future workplace. Students without his experience may be desirous of a high-octane career, which they may perceive is not possible in General Practice.

SSC in General Practice and discussion with medical friend

During the study, Ahmed chose an SSC in General Practice, during which he had the opportunity to perform a research project, the topic for which was denigration of General Practice. This research encouraged Ahmed to discuss denigration socially, with a friend who is a doctor in a hospital speciality:

> *"I did have a chat with a friend of mine who's a Dermatologist and he was saying that he felt like it was much easier to hide as a s**t Practitioner if you're a GP, if you're in a GP practice you're able to get away with not being very good but at the same time if you're an excellent G.P. there's a slower path to recognition."* Ahmed, diary entry 2, line 16-19,

Whilst this discussion is with a senior colleague, it is clearly one with whom Ahmed feels comfortable in conversation, and able to use informal language. Ahmed elaborates that this may be due to an overcautious clinical approach, having to "cover" one's own back clinically, enabling poor clinicians to refer onward rather than perform thorough assessments.

Ahmed's friend also discusses a slower path to recognition, a perception which reinforces the previously discussed perception of lower prestige, raised within Ahmed's interview and diary entries.

Whilst this discussion causes Ahmed to contemplate the explanations for why a poor clinician may be able to "hide" as a GP, there is no process of questioning why his friend

holds this perception. No particular experiences were described which led to this perception, and the negative perception shared by his friend was immediately accepted by Ahmed.

Ahmed clearly trusts and has a close relationship with his friend, who does hold clinical seniority, being a qualified doctor in a hospital speciality. This may explain his immediate acceptance of his perception; rather than questioning, Ahmed considered his own experiences, and used them to explain this perception, enveloping his friend's trusted perception within his own.

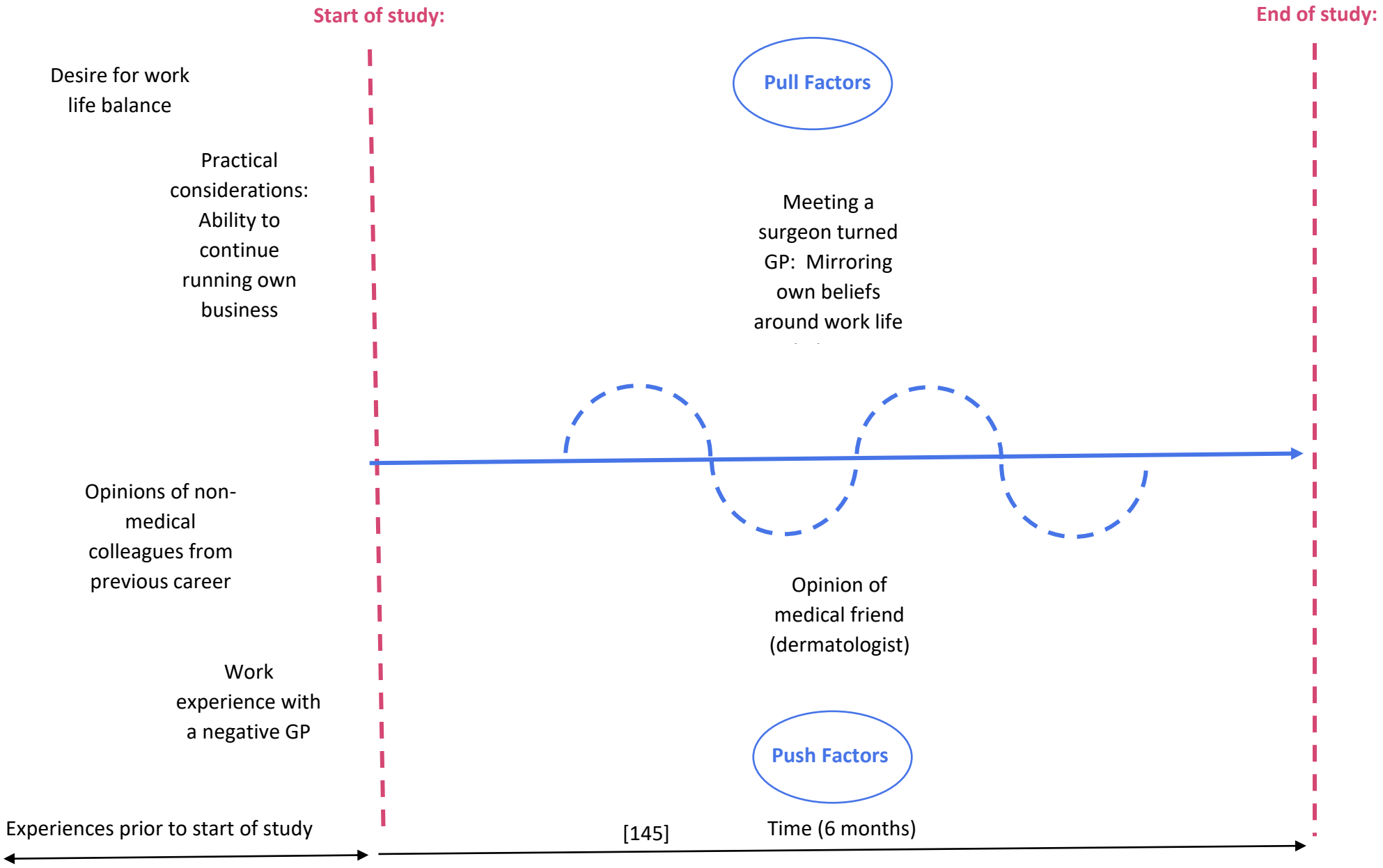
5.3.4 Ahmed: Driven towards the "good life"

The driving force behind Ahmed's desire for a career in General Practice is his desire for a flexible future, allowing him time to work on his own business: A polar opposite to his previous career in the business sector. Whilst believing that GP does not offer the prestige of hospital specialities, Ahmed does not consider that this balances his desire for flexibility, considering those that choose prestige over work-life balance to be "masochistic".

Ahmed believes that General Practice will offer him this future, he seeks out experiences, for example work experience and SSC's, which enable him to see more of General Practice. However, when negative experiences are presented to him which do not meet this perception, such as an overworked colleague, these are de-emphasised in favour of his pre-existing positive perceptions.

Figure 18 represents Ahmed's push and pull factors, away from and towards a career in GP, both before and during the longitudinal study.

Figure 17: Pictorial representation of Ahmed's push and pull factors over the course of the longitudinal study



5.4 Dave

5.4.1 Demographic Details

Participant code	1207
Year of study	4
Gender	Male
Age	<25
Ethnic group code	1 (English, Welsh, Scottish, Northern Irish or British)
GP Likelihood (start of study)	3/10
GP Likelihood (end of 6-month study)	3/10
"Top three" Career Choices (start of study)	Venture Capitalism, Surgery, Pharmaceuticals
"Top three" Career Choices (end of 6-month study)	Orthopaedics, Obstetrics and Gynaecology, Interventional Radiology

Table 14: Demographic details Dave

Dave is a male student, who began medical school directly after A-levels, aged 18. He has a medical family, and his father is a General Practitioner. At the beginning of the study, somewhat disenchanted with medicine, he considered future careers outside of the medical field. At the end of the study, after being given the opportunity to follow some areas of interest in SSC's, he felt more likely to remain in the field for his future career, with a preference for specialties which focused on either surgery or practical interventions. He felt he was unlikely to choose a career in General Practice, and felt that this likelihood did not change over the course of the study.

5.4.2 Experiences prior to commencing longitudinal study

<u>Direct experience of a GP at home</u>

Dave explains that much of his perception of GP as a career is derived from his experiences with his father:

> *"Growing up with a father who was a G.P. I feel I had a good insight to what life was like as a G.P. entails. However, he worked fulltime, just as*

hard as many of the people that I knew and so I wouldn't have associated it with being a completely relaxed atmosphere at all." Dave, first interview, line 56-59

Dave has, unlike the previously analysed participants, lifelong experience of General Practice, and first-hand experience of the effect this career had upon his father. This quote, offered early in the interview suggests that the perception of the "relaxed" life of the GP is something that Dave has come across in the past, something which does not fit with his own lived experience, and that he is keen to disprove.

Dave returns to discussing his early experiences with his father in his debrief interview:

"I think for me because my father is a GP, I think I have a good idea already of what that entails therefore medical school for me isn't going to sway my judgement as much because growing up I know exactly pretty much what the job is (sic)." Dave, debrief interview, line 13-15.

Dave reflects that his perception of GP was therefore developed prior to medical school, he had already decided that General Practice was not a career he wanted to pursue. Whilst considering that this perception was relatively inflexible, Dave suggests that his time at medical school has reinforced this pre-existing perception, and made him marginally less likely to pursue a career in GP.

Dave's belief that his perception is fixed, suggests that those experiences which may have impacted upon others' perceptions, may have a lesser impact upon him.

<u>Attitude towards General Practice within University</u>

Dave repeatedly refers to attitudes toward General Practice within his institution, although he is not always able to identify the source of these attitudes. The quote below directly follows on from line 59 of the first interview. Prior to which, Dave had discussed his own experiences of his father's heavy workload:

"I wouldn't have associated it with being a completely relaxed atmosphere at all. I think going into university that gets over amplified, I would say, and it almost builds up, and up, and up as the more you go along as a more relaxed job, and that whole environment of being, it's hard to say fallback option, but I would say at this current time people do see it as 'oh, I don't know, I might just become a G.P.' that's the classic comment." Dave, first interview, line 58 -62.

In this quote Dave identifies an underlying societal belief within his institution, regarding General Practice being more relaxed than hospital medicine. This concept has been touched upon in previous narratives, in which students have been unable to identify the source of a belief about GP. Dave is however the first participant to highlight a cascade effect, in which the belief is reinforced, over time, within the undergraduate community.

The concept of becoming "Just a GP", as seen in Ahmed's narrative also returns, however, Dave is able to retain insight into this perception, due to his previous experience of his father. Those who are without this "real world" experience of the home life of the General Practitioner, may be lacking in the experiences to question this widely held societal belief within their institutions.

<u>Reinforcement of "easy life" belief by hospital colleagues and the cascade effect</u>

Dave highlights the reinforcement of the above belief from his senior colleagues in the hospital when asking for career advice:

> *"They always say if you want a cushy lifestyle become a General Practitioner."* Dave, first interview, Line 101

Whilst Dave believes this perception to be untrue, he reiterates how he feels these perceptions multiply within the undergraduate population:

> *"When everybody starts talking, your whole year group starts talking about it, it only takes one or two high profile people who Medical students look up to say (sic), they believe them and then word spreads like wildfire and like any gossip it goes up, and up, and up, and up and things like that travel really, really quickly."* Dave, first interview, line 104- 107

Dave describes a cascade effect, that has been seen in previous quotes. The idea that an innocuous comment from a trusted source, such as a lecturer or consultant, can multiply within the medical student population, and result in a firmly held societal belief.

Dave views this perception with some scepticism, as he has seen the opposite to be true, through his relationship with his father. In the narratives presented earlier in this work, of students who do not have early experience of General Practice prior to university, societal perceptions meld with the student's own experience.

One must also consider why the hospital doctors in question made this statement about General Practice. This may be a perception based upon their own experiences working in General Practice. However, General Practice placements as part of the Foundation Programme are a relatively recent addition, so many senior hospital doctors may have had no experience in GP. It may be that these doctors have spouses or friends working in General Practice, or it may be that they themselves have had their perception shaped by a similar societal belief within the hospital environment.

Third year GP placement

In his third year of medical school, Dave experienced a longitudinal placement, in which he attended a General Practice placement, for one half day a week, for a year. When questioned if he thought these placements had an impact upon perception of General Practice he responded:

> *"I think that is completely dependent on where you end up, and who you're with. I had a fantastic supervisor and G.P. that I was with who's lovely, and really welcoming, and welcomed us into the practice, we got to know everyone. I think that was a really good atmosphere to spend each Wednesday morning going to."* Dave, first interview, line 87-90.

Dave's enthusiasm for this placement is audible, particularly in his compliments of his GP supervisor. He also reflects upon friends who enjoyed these rotations less:

> *"Some people didn't have as good a time I think that's because of the way that they were treated by the practitioners and it was all dependent on how they engaged with the students."* Dave, first interview, line 92-94.

In Dave's experience, and that relayed to him by his peers, the key factor in enjoyment of these placements was engagement with a GP supervisor, something which Dave felt would have an impact upon student's perception of General Practice.

As discussed above, whilst Dave found these rotations enjoyable, and had a clear admiration for his GP supervisor, he does not feel that these changed his perception of General Practice. Given that he feels his perception of GP based around his father is already true.

Dave also does not go as far as to call his GP supervisor inspirational, a descriptor which we see from previous students. Whilst Dave is very complimentary of his GP supervisor, it may be that she is not inspirational to him as his aspirations do not involve a career in General

Practice. He also has a close family role model, whom he may well look to for inspiration, perhaps lessening the impact of GP role models encountered in later life.

5.4.3 Experiences during the longitudinal study

Conversations with peers and colleagues

All of Dave's diary entries concern discussions with his peers and colleagues. For the purposes of producing a cohesive narrative, Dave's five diary entries have been grouped within the following analysis.

Just a GP: General Practice as a "fallback" option

Three of Dave's diary entries concern discussion in which General Practice has been referred to as a lesser, second choice option. In the first of these, Dave discussed careers with another student, in the year below, who also had aspirations of becoming a surgeon:

> *"He said, 'if this all doesn't work out then I will just become a GP, it's not the end of the world'."* Dave, diary entry 1, line 8-9.

Dave encountered a similar opinion when discussing careers with a group of his peers over lunch the following month:

> *"One of the chaps said, 'Oh I could quite happily do surgery & do that as a career & when I burn out, I will be a GP at the end as it doesn't take much'.* "Dave, dairy entry 3, line 6-7.

In both these diary entries, and later in his debrief interview Dave shows an ability to reflect upon the comments of his peers:

> *"It's like saying 'oh and then I just became a GP' it's not said 'oh and then I had a passion for GP so I applied for that and got it', they say 'oh I just became one' you know what I mean, it's a slight difference it's like again its almost seen as that kind of safety net really."* Dave, debrief interview, line 173-176.

Dave's peers, who aspire to be surgeons, represent one extreme of opinions toward General Practice, but this offers a valuable insight into perceptions of General Practice within this group. These diary entries highlight the perception of a group, disclosed to an insider (Dave), which the group may not disclose to those in a less trusted position. With Dave's perception, and experience with a family member in General Practice, he is able to reflect

upon these perceptions as presented to him, and diarise them alongside his own reflective analysis. Thus, he offers a unique viewpoint, which may not otherwise have been presented to this researcher, as a GP.

Dave highlights in his reflections a number of perceptions held by his peers surrounding General Practice as a career. The first of these being that it is easy, and guaranteed to get a position as a General Practitioner. Whilst Dave does not elaborate after identifying this perception, previous narratives have identified the concept of being "pushed" towards a career in General Practice. This push toward recruitment(NHS England, 2016), may imply, to some students, a lack of competition for General Practitioners, and an assumption that it is an easier career. Dave identifies that his peers are passionate about their prospective careers in surgery, and he has noted no such passion surrounding General Practice. Rather, there is an assumption that General Practice would offer a wage if their "dreams" did not come to fruition.

There is no mention in Dave's diary entries of his response to the opinions voiced by his peers. Whilst in private, in his interview, Dave has identified his own perception of General Practitioners being hard working, it is unclear if he challenged the perceptions of his friends. If these perceptions are widely held, Dave, and others like him, may feel unable to challenge them, thus perpetuating the societal perception of General Practice within the undergraduate community.

<u>GP's teaching the "fundamentals" of medicine</u>

In a conversation with friends, Dave discussed the nature of General Practice and medical schools in which his friend makes the following point:

> *"He made a very good point that the fundamentals of what we learn in medical school and the overall wide variety of topic areas & treatment management all stems from General practice really. We don't do much specialisation or specialist care in what we learn & in the end of the day the speciality which gives the best insight into the fundamental essence of basic medicine is General Practice."* Dave, diary entry 2, line 8-12.

Dave considers this in a positive light, in that General Practice offers variety, and whilst some may see it as "boring", he doesn't think that this is the case. Dave considers that General Practice offers a better insight into the knowledge one needs to graduate from

medical school, as opposed to teaching from speciality doctors. Conversely, Dave's praise has an insidious undertone, his use of the word "basic" in reference to the knowledge base of General Practice, implies less intellectual challenge in this work. Whilst this may not be Dave's belief at this time, his language reflects some of the beliefs about General Practice which surround him.

Discussions with respected senior colleagues

In the first of two diary entries, Dave describes a discussion with a consultant surgeon, a colleague in a role to which Dave aspires, regarding a career in surgery:

> *"I was questioning him about what it (a career in surgery) entails. He said, "look surgery is very hard, the lifestyle can be very anti-social at times & you have to be quite dedicated to the job". To which point he brought up General Practice & he said if you don't want to do surgery & you want a "cushier" lifestyle I would advise doing general practice."* Dave, diary entry 4, line 5-8.

Dave reflects on how he felt this statement impacted him differently, compared to the perceptions of his peers:

> *"I think I do listen to senior consultants & doctors more & trust what they say more than medical students & I think that impacted me even more to be honest."* Dave, diary entry 4, line 11-13.

This consultant holds a position to which Dave aspires, and he considers that he speaks from a place of experience. As such, this perception holds more weight than that of his peers. Whilst Dave considers his own perception of General Practice to be relatively fixed, constant exposure to these contradictory perceptions, begin to have an impact upon him, particularly when voiced by a trusted and respected senior figure.

Shortly after this discussion, Dave encounters an A and E consultant, whose wife is a GP and offers an alternative opinion:

> *"He said his job as an A&E consultant was less hard than his wife's & his wife had had to work harder & at the moment GP is a very hard profession. It gets a reputation as being easier & having a better lifestyle than it actually is. I thought that was really interesting because historically a lot of professionals have been building up general practice as an easier profession."* Dave, diary entry 5, line 10-14.

Dave reflects that he believes this A and E consultant, as his perception is coming from first-hand experience. Thus, Dave has weighed the opinions of his peers and seniors, considering those which hold most weight.

In his debrief interview, Dave was asked which of these two consultant opinions he sided with. Whilst indicating that he felt he respected and believed the opinion of the A and E consultant, he stated the following:

> *"I would say the more cushy kind of lifestyle, definitely. I'm not saying general practice is easy but in terms of not having to do those nightshifts and getting a job earlier, getting a better pay rise earlier theoretically if you can get a partnership."* Dave, debrief interview, line 94-96.

Dave's statement reiterates the perceptions of GP which have been presented to him from a consultant colleague, and his peers. Whilst earlier in the study Dave felt that his father did not have an easy life, this perception seems to have changed, following the persistent societal understanding he is surrounded with. Dave's own experiences with his father, and those of a consultant with first-hand experience, are negated. In favour of the more widely held societal belief, albeit one which has less of a basis in experience.

<u>Desire for peer respect</u>

In his debrief interview, and following his discussion upon GP as a "cushy" life, Dave touches upon his own desire to be respected in his future career:

> *"I think it's more of the competitive nature in me sees it (the easier life as a GP) as a negative. So, there are two sides to it, the first would be the cushy side which if I understand that, it's a positive and I respect that; it's easier working hours, better lifestyle potentially at times. But for me personally my mentality is more that's the easier route, the harder it is to get there the… peer respect."* Dave, debrief interview, line 108-112.

In this debrief interview, Dave describes himself as competitive, and desirous of peer respect. When the context of Dave's diary entries is considered; in which peers and seniors describe GP as "cushy" and a "fallback option", one can understand why Dave may consider this to be an unattractive career. The constant societal belief that General Practice is "easy", discourages Dave, due to his desire to be respected, and seen as hardworking and successful.

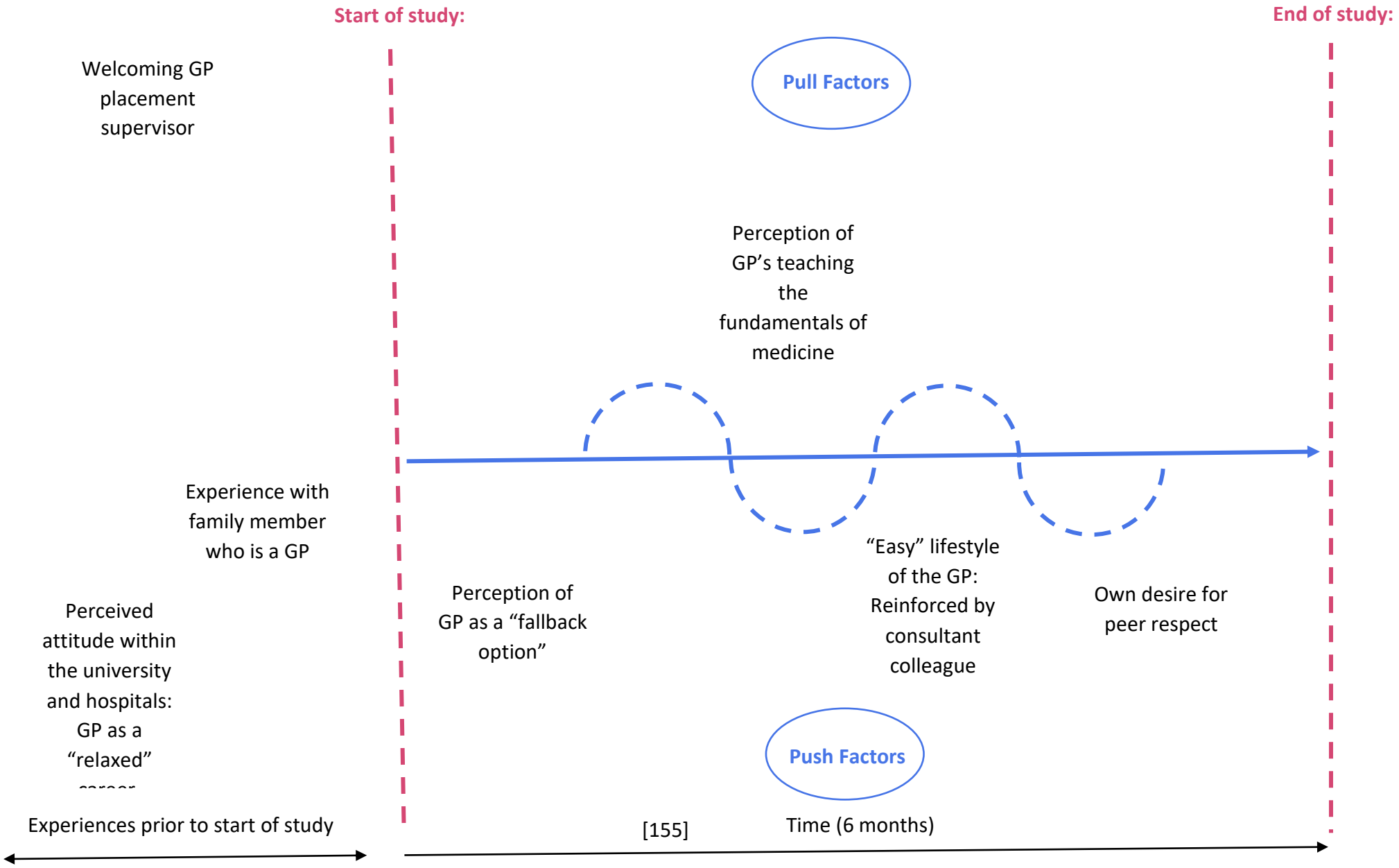
5.4.4 Dave: A desire for respect, and a belief in the perception of medical society

The focus of Dave's diary entries has been discussions with peers and colleagues. His diary entries have built a strong picture of the perception of General Practice as "easy" or a "second choice option", particularly amongst his peers, who like him wish to be future surgeons. Whilst Dave has first-hand experience of life with a GP, he gives credence to the perceptions of his peers and seniors, even when these are in conflict with his own experience.

Dave's driving force, in his choices for his future career, is respect of his peers. Something which he sees as gained through hard work, and a competitive career. He does not see General Practice as a source of this respect, this may be considered to be due, in part, to the underlying societal perception of General Practice, presented to him by the same peers from whom he desires approval.

In spite of this, Dave's likelihood of choosing GP as a career has not changed over the course of the study. Figure 19 is a pictorial representation of Dave's narrative journey. Due to Dave's internal desire for respect, and a wish to be seen as working hard, many factors which would otherwise have been considered to be pull factors for General Practice are here represented as push factors.

Figure 18: Pictorial representation of Dave's push and pull factors over the course of the longitudinal study



5.5 Lucy

5.5.1 Demographic Details

Participant code	2202
Year of study	5
Gender	Female
Age	<25
Ethnic group code	1 (English, Welsh, Scottish, Northern Irish or British)
GP Likelihood (start of study)	8/10
GP Likelihood (end of 8-month study)	7/10
"Top three" Career Choices (start of study)	General Practice, Paediatrics, Unknown
"Top three" Career Choices (end of 6-month study)	General Practice, Paediatrics, Public health

Table 15: Demographic details Lucy

Lucy was born in the UK, began medical school aged 18, and is in her penultimate year of study. Due to the summer holidays falling in the middle of her period of diary recordings, and having a GP placement following this, she requested to have her debrief interview following this placement. She considered herself very likely to choose a career in General Practice at the start of the study, and felt she remained so at the end of the longitudinal process. In her spare time, Lucy has a job performing ECG's at a local GP surgery.

5.5.2 Experiences prior to commencing longitudinal study

<u>Peer opinion: Lack of prestige</u>

During her first interview, Lucy explains how she believes her peers have a negative impression of General Practice:

> *"I think overall the impression towards GP is that it is not as prestigious of the specialties, a lot of the idea is like someone would be wasted on GP with regards to like being the best doctor they could be, it would be a waste going into general practice. I think GP is seen as a backup option."*
> Lucy, first interview, line 119-122.

She elaborates further that this may be due to the location of her institution:

> *"People have a slightly skew (sic) on GP being like we had to track out to (outside of the city) to some GP practice that don't even know that we're coming. As opposed to the glamorous shadowing a surgeon; seeing cutting edge robotics and stuff like that."* Lucy, first interview, line 123-127.

Lucy, despite wishing to pursue a career in General Practice, feels her peers consider it to be less prestigious. The concept of a good doctor being "wasted" in GP has a clear implication that those who are successful are better placed in hospital specialities. The concept of GP as a backup option has been seen in the narratives of other participants, and is reiterated in Lucy's experiences. Unlike some other participants, Lucy has her own thoughts on the origins of this concept of "low prestige". Through studying in a large city, with a number of specialist tertiary hospitals, the hospital medicine she and her peers encounter is exciting, cutting edge, the pinnacle of current medical technology. When compared to travelling out of the city, to a sometimes-disappointing GP placement, the divide between both workplaces is frank.

Distance travelled to GP placement is also problematic in Lucy's institution, this is covered in the subsequent section.

Despite this apparent lack of prestige, Lucy is not discouraged from a role as a General Practitioner. She does not indicate a disbelief of the "low prestige" concept; therefore, it may be considered that prestige is a less important factor in Lucy's career decision making.

<u>University placements: Meeting an inspirational General Practitioner</u>

In her first interview, Lucy discusses her experiences with a GP on placement, whom she felt was particularly inspirational:

> *"I felt that hearing him speak so proudly of being a GP and that it is a really good job for all of these reasons I think empowered me to think 'no they shouldn't feel like it's any less prestigious being a GP'."* Lucy, first interview, line 206-208

Lucy feels that exposure to a clinician who is enthusiastic, friendly and positive in any speciality, led to a positive experience and developed her positive feelings towards that speciality. She considers that in General Practice, as students in her institution are split between many different sites, the wider variety of clinicians may result in more negative experiences than would be seen in the hospital.

Lucy also considers that organisational issues may result in negative perceptions of GP placements. She explains that her university is within a big city, in close proximity to many hospitals. However, students may be required to travel outside of the city to visit a GP practice. This inconvenience may compound negative experiences with a clinician, or lessen the effect of a positive experience, resulting in an overall negative perception. Lucy does identify that it took her an hour to travel to the aforementioned "inspirational" GP, suggesting that a difficult commute will not inevitably result in a negative experience on placement.

"Pushing" the GP curriculum

Lucy notes that her institution appears to be integrating more General Practice into the curriculum:

> *"(Institution name) has quite a big push that they want more primary care doctors and more GP's and over the years I've noticed in the curriculum it's a lot more focused on holistic medicine trying to introduce more primary care into the curriculum."* Lucy, first interview, 131-134

Lucy does not consider this inclusion in the curriculum to be problematic; understandably, considering this is a career she wishes to follow herself. She identifies a contrast between this primary care "push" and the location of the institution, within a city which is known for its cutting-edge hospitals. This dichotomy may also be seen in Lucy's peers, many of whom may have chosen this university for its proximity to such prestigious centres, and as such may have little intrinsic desire to learn about a career in General Practice.

Work experience in an ECG clinic

Lucy explains that she has had a part time job, working in a GP Practice. She holds an ECG clinic, in which she performs heart tracings for patient, at the request of the clinical team, and forwards the tracings to the clinical team for analysis. She also does administrative work. This gives her a unique viewpoint of working life within a practice:

> *"I think the medical experience in other parts of my placement then made me reflect on my part-time job and see the other avenues that would come off because I see such a small part of the job, just do like one clinic and then some admin, then when you see there are lots of aspect to GP. I think that now because I'm interested in GP, I think my on my own job has*

changed and I look at it slightly differently, I think." Lucy, first interview, line 95-99.

This entry implies a progression in her perception of GP through this work. Initially her role is insular and tack focussed, however following the contextualising experiences at university she is able to understand the wider implications of her work, and view her role in the wider context of patient care. Lucy implies that this reflective process is due to her interest in the career.

Lucy's understanding of the administration of General Practice allows her to engage in placements on a level unseen in other participants. Here she discusses the *"Quality and outcomes framework"* (QOF), a process whereby Practices are partly funded through their achievement of targets related to patient care:

"My current GP placement the GP that I'm with does a lot of these QOF alerts as and when they come up and I think actually that was one of the things I really liked about the GP I'm currently with runs their practice." Lucy, first interview, line 57-60.

Due to her experience on the administrative side of QOF targets, Lucy is able to reflect upon this management by the GP, who was previously discussed as being inspirational, positively. Another student may find these alerts frustrating, and not clinically focussed. Lucy has a baseline understanding which allows her to understand the purpose of such targets, and see the proactive steps taken by the GP as optimising patient care; providing a rich understanding of the breadth of the GP role.

Lucy's experiences form a reflective process, through which her work experiences impact on her understanding of her university placements, and vice versa. Her knowledge of the administrative workload of the GP provides insight to a side of General Practice which other students in this study have viewed with suspicion.

5.2.3 Experiences during the longitudinal study

<u>Reflection on history taking</u>

In her first diary entry, Lucy describes a meeting with her friend, in which they discussed history taking in General Practice:

"As a general practitioner you need to rely much more on history taking and examination rather than blood tests. And actually, that was something that made me think that I actually quite those things, I like doing the history and examinations more so. And I think that's something that's made me think positively towards GP because I think you do have to be a very good doctor to be able to do that." Lucy, diary entry 1, line 7-11.

In previous narratives, descriptions of General Practitioners as good clinicians have not been forthcoming. Whilst Lucy believes that General Practice is of lower prestige, this suggests that perception is not linked to a belief that General Practitioners are unskilled clinicians. In fact, it implies that in spite of being less prestigious, General Practice may require more skill, in Lucy's eyes, than hospital medicine.

<u>Difficult experiences with patients who suffer from mental health disorders</u>

In two of her diary entries, Lucy discusses experiences with patients who suffer from disorders of mental health, and the difficulties this presented:

"He (the patient) is sort of coming in with no real presenting complaints, just he feels that people aren't helping him. And we are putting him through to social services and additional support in that way and he doesn't really want any support. I think this is one of the more difficult aspects of GP where you will get patients that come in and you just don't really have anything to do with them, in a way, because they aren't really willingly necessarily to accept help." Lucy, diary entry 2, line 7-11.

Lucy also describes a patient in her ECG clinic, who she identified as having an abnormal ECG. In this case the patient was advised to go to A and E, but Lucy was worried that he would not do so:

"He was advised by the on-call GP to then go to A & E but I wasn't sure he was going to go because of all of these other kinds of psycho/social issues and I sort of then left feeling a little bit frustrated that this person, that I felt was quite vulnerable, where they had been seen by the GP and advised what to do and they were an adult and they did have capacity to make the decision if they didn't want to go (sic)" Lucy, diary entry 4, line 9-11

Psychiatric patients are often cited as being tricky to manage, with non-concordance with treatment and extended appointment times commonly being quoted as issues (Crowe et al., 2010), and certainly experienced by myself as a GP. The tone of both of these recordings is one of sadness, and in diary entry 2, Lucy expresses this as difficulty in feeling that *"you're*

not helping the situation, because these patients have been passed from pillar to post." (Line 15). There is a slight contrast between the two diary entries, in diary entry 2, the patient was unwilling to offer accepted help, resulting in a feeling of hopelessness for Lucy. Whereas in diary entry 4, the patient was either unwilling or unable to accept help for a physical health condition, and Lucy expressed a sense of frustration that the GP involved could not or would not do more to help.

Complex psychiatric patients are difficult to manage within the primary care model; their problems may not fit into a "neat" ten minute consultation, relationships between patients and GP are difficult to build and easy to break, and social issues may mean that available health and social care does not fit the needs of this group (van Hasselt et al., 2013). In these diary entries, Lucy is experiencing some of these difficulties first hand, empathising with two vulnerable patients, and as a result is saddened and frustrated that their needs are not being met.

Whilst these experiences are not expressly negative, they are thought provoking for Lucy. They are symbolic of some of the cases for which General Practice is not ideally suited, patients for whom one has to adapt the model to the patients' needs as best one can, often with a less-than-ideal result.

These cases challenge Lucy's positive perceptions of General Practice, she considers them carefully, and continues to question her perception of the case following the event and subsequent diary entry.

<u>Engaging in an MDT meeting</u>

During a GP placement, Lucy has the opportunity to sit in on a multidisciplinary team (MDT) meeting, during which a group of medical and social care professionals discussed elderly and frail patients, and made decisions on their management. Lucy confesses that in the hospital she has found MDT meetings "dull", but had a different experience in General Practice:

> *"This was a really positive experience and I really felt the community team working together was really productive and actually a really good way to integrate health care and social care…I think because as well for patients a lot of what they care about is often more kind of like social, psychological*

things than sometimes their physical health at times and so it was nice to integrate that with a team." Lucy, diary entry 3, line 10-12, 16-18.

This experience within the MDT corresponds to Lucy's prioritisation of holistic care (discussed later in the diary process), which she enjoys as a key part of the role of the GP:

"I think a lot of the bad things about GP are the fact that you get these grey areas with patients that you can't really do anything for. And it's because you can't do anything for them as a doctor but there are things available for them, and so I think that's why I really liked the MDT because I think it highlighted to me that actually although when loads of people are like 'oh I hate GP, there are all these patients that we can't do anything for' but actually I don't think we know all of what's available" Lucy, debrief interview, line 80-85.

Through reflecting on her experience of the MDT, Lucy has alleviated some of her previous concerns regarding the aforementioned patients with mental health disorders. She has been able to identify other sources of assistance for those patients whom the GP is not able to support alone.

<u>Appeal of part time working</u>

Whilst involved in the study Lucy started a placement on paediatrics. During her induction, Lucy was given some careers and resilience advice from a paediatric doctor:

"She discussed a bit about the ability to do different things other than the kind of one speciality you've been given, other things where you can work part-time. Actually, I think I have a lot of interest in doing part-time work, it's something I'd be really interested in so that I could explore other things in medicine and in life. One of the things she was saying was that GP is very accommodating towards that and so I think that's something that has made me look in favour towards GP." Lucy, diary entry 5, line 6-10

In this case, the paediatrician suggests her own perception that General Practice can offer a part time workload. It is not clear as to the source of this clinicians' perception. The context of a lecture on resilience implies a scenario in which part time working was discussed with a focus on self-care. Lucy accepts this statement regarding part time working, implying a level of respect for this clinician, a belief that she is presenting the truth. The situational context, of a lecture which focusses on well-being, may also contribute to Lucy's belief in this statement, she believes the clinician is offering caring advice: The lecture is held with

respect, and as such does not aggressively challenge Lucy's perception, as has been seen in other narratives.

Lucy engages in a process of reflection, considering the statement given to her by her senior colleague, adding it to her own "bank" of perceptions surrounding General Practice, then reflects upon it in the context of her own intrinsic desire for a part time career, finding it to be a match.

Later in the study, during her debrief interview, Lucy reflects upon how the perception of General Practice as offering part time work, may have an impact upon the "status" of the profession:

> *"It (part time working) has a positive effect on making people who want a balance or want to do less medicine go to GP but I think it had a negative effect on the status of GP, which is what's putting a lot of people off. GP is considered lower…what ends up happening is people that want out (of a medical career), more so go towards GP and maybe are not as good doctors because, maybe the reason they went to GP was because they wanted a bit less medicine in their lives."* Lucy, debrief interview, line 219-224.

Whilst Lucy sees how part time working fits in with her desires for her future career, she shares an appreciation of how this flexibility may contribute to the "lower prestige" of General Practice, which has previously been discussed in this work: How some may see it as work for those who are not truly committed to medicine. Lucy's first interview indicated that prestige was not a motivating factor for her, and as such she is able to see the opportunity for part time working as an attractive aspect of GP.

<u>Dermatology Lecture</u>

Lucy expresses that she does not "like" Dermatology, and this has been a cause of concern, as she would need to treat dermatological conditions in General Practice, however an experience in a Dermatology revision seminar leads her to reconsider her perceptions of dermatology:

> *"The lecturer said something that I found quite inspiring. Which was that skin was people's way of expressing themselves and people tattoo their skin, they will dye their hair, paint their nails etc. and so obviously it's a really important part of everybody's everyday life. One of the reasons I've*

always been a bit like 'Uhhh' towards GP, to some extent, is that there is an awful lot of derm (sic) in it." Lucy, diary entry 6, line 5-8

Lucy goes on to explain how this block of seminars with this particular tutor has changed her view of Dermatology, and removed it as an area of doubt regarding a career in General Practice.

Once again, Lucy reflects considering how her perceptions have been challenged by this inspirational lecturer. She finds that his explanation ties Dermatology into her own interests in holistic care, and as such becomes more open to dermatology as a subject, and its role in the work of the GP. Lucy is not upset by this challenge to her previously held belief, as she may have been were the speaker rude or disrespectful. Instead, she uses this challenge as part of her internal reflective process to develop her perception of a General Practice, ultimately reinforcing that General Practice as a career fits with her internal beliefs regarding holistic care.

<u>Discussing career decisions with a Paediatrician</u>

Whilst on her paediatric rotation, Lucy finds that this speciality is particularly enjoyable, and fits with her priorities for her future career. As such she begins to consider if Paediatrics is a better choice for her future career than General Practice. She meets a Paediatrician on her placement who made a similar choice between Paediatrics and General Practice, who offered her advice about choosing between the two careers:

"He sort of balanced it, like he almost couldn't pick a wrong answer and ultimately you will get to a time in your life where you have to make a decision and you'll end up going for what you end up going for and you don't get to look back at what the other route was. So, I think for me, I guess, reassured me that it will sort of all be alright anyway." Lucy, debrief interview, line 52 -57.

Lucy also reflects upon why she valued the opinion of this senior colleague:

"Also, he was a really amazing doctor, he really seemed to care about what he was doing whilst also balancing other aspects of his life. So, he was like a magician for the magic circle, so he's clearly also having other things and stuff like that. So it sort of made me think there is a lot of scepticism in medicine in general and people being like 'don't do this career, don't do that career' but he was sort of like 'do you know what, you'll do what you end up doing and you'll probably be happy for it'. So I

think in that sense that's why I quite liked his outlook because to me it aligned with how I sort of see the world." Lucy, debrief interview, line 57-63.

As can be seen in the previously discussed section regarding part time working, Lucy values an open discussion with her colleagues, in which she feels she is receiving a balanced opinion rather than a prescriptive judgment regarding her future career choices.

Whilst this discussion has not changed Lucy's perception of General Practice per se, the approval of her senior colleague, with regards to her career uncertainty, has been reassuring. Particularly due to this colleague having a similar outlook, and similar early career intentions to herself.

<u>Paediatrics vs. General Practice</u>

Lucy continued to consider if she would prefer a career in Paediatrics or General Practice. After attending a revision seminar on Paediatrics, she contemplated the cases she might see in Paediatrics as opposed to General Practice:

"I think again, struggling with probably this balance of Pead's versus GP, what do I choose? One of the things I thought was interesting was….so there are a lot more rare, niche conditions that we went through today in our revision seminar and I found a lot of them really, really interesting. I guess it led me to wonder how much of that would I see in GP." Lucy, diary entry 8, line 5-8.

Lucy continues to be reflexive within her diary entries, questioning herself; in her later diary entries she considers how being involved with the study itself may have encouraged her to reflect upon her career choices further. The above quote provides an example of this reflexive process. Through her experiences of teaching in the seminar, Lucy identifies her interest in rarer conditions that she may not see in General Practice. She then reflects upon her personal interests, and how these correspond to the cases she may see in each career.

As has been seen in previous diary entries, Lucy; undergoes a longitudinal process, during which she receives new information regarding careers, and assesses this against her desire for the future and clinical cases which she finds engaging. As new information is received and analysed, she is pulled either toward General Practice or Paediatrics. At this time, these experiences have been grossly positive, pulling her toward these careers, rather than negative experiences, pushing her away.

Shadowing Paramedics

Whilst still on placement in the hospital, Lucy had the opportunity to shadow some paramedics during their workday. In her diary entry she reflects on similarities between the work of the paramedics, and General Practice:

> *"It was quite remarkable the difference the paramedics would make from the moment we arrived versus when we got to A & E, just by nothing other really than reassurance and how different these patients looked... I also think this is something a GP would experience because you have patients quite distressed coming to you and maybe they need to go to hospital but maybe they don't."* Lucy, diary entry 9, line 8-10, 12-13.

As has been previously seen in her diary entries, Lucy demonstrates reflexivity in her entries. An ability to break down component parts of her experiences, analyse those which pique her interest, and consider how these may or may not apply to her career plans. In this case she considers the role of the Paramedic as first point of care for a patient, and goes on to compare this to the assessment skills needed by the GP. She goes on to say:

> *"Overall, I found the day really enjoyable and actually thought a lot about it afterwards about how much I did enjoy it which made me think of the kind of parallels that brings with GP and would that mean that I would enjoy GP a lot, I guess."* Lucy, diary entry 9, line 27-29.

This level of reflexivity has been seen frequently in Lucy's diaries; a continuous comparison of her experiences and how they relate to her interest and driving force for her future career.

It may be that Lucy is inherently reflective, and simply vocalising a continuous internal dialogue. Alternatively, her involvement in this study may have prompted her to reflect upon these experiences. Thus, the research process itself becomes a trigger for considering one's own desires for a future career, and reflecting on these in the context of experiences.

Reflecting on research

Shortly after the above diary entry, in which this author began to consider involvement in this study as a reflective process within itself, Lucy discusses her involvement in this study with a friend. Lucy, reflects upon how involvement in the study has made her consider the positives of General Practice as a career. Lucy discusses this further in her debrief interview:

> *"I think it's just looking out for what makes it a good job, how it suits me as a person. I think I've gone about my life really reflecting on that, which maybe I wouldn't have otherwise."* Lucy, debrief interview, line 30-31.

Lucy highlights that not only is it the act of reflection brought about by the study, but an active searching for evidence that this is the correct career path for her. Whilst seeking out experiences which can be assimilated into a collection of supporting evidence may appear to be grossly positive, this does suggest a selectivity in which evidence Lucy considers the experiences she reflects upon, possibly choosing those which most align General Practice to her desires for her future career.

<u>Careers discussion with two FY1 doctors</u>

Following her Paediatrics rotation, Lucy began a rotation in the Accident and Emergency department, where she encountered FY1 doctors with whom she discussed her career intentions:

> *"I was talking to the F1 on-call about careers and he was saying he didn't want to do GP because he doesn't like the idea of sitting down all day. It was interesting because a lot of what an F1 does is admin anyway and it sort of just essentially doing a lot of ordering, it was as if he was arguing that he didn't want to do all these referrals and ordering tests, but that's what he does anyway."* Lucy, diary entry 11, line 4-8.

Lucy demonstrates scepticism of this doctors' perception of General Practice. In her recording she exhibits irritation at this statement. Two explanations for this scepticism are here theorised:

The FY1 doctor in this case has openly challenged Lucy's perception of General Practice, a career for which she has a fondness. This challenge does not meet with Lucy's perception, and as such she rushes to defend the career she aspires to, calling out discrepancies in the doctor's argument. Lucy may not have felt able to demonstrate this scepticism with a more senior colleague, but due to the doctor's proximity to her own level of training she feels able to challenge his own beliefs.

The tone of the conversation, which is not able to be represented through the diary process, may have an impact upon Lucy's response. Lucy has already demonstrated an ability to discuss careers with those who have different opinions to herself, consider their perspective, compare it to her own, and integrate those perceptions she feels are true. In

contrast she immediately dismisses the perception of this FY1 doctor. A critical tone, or suspicion of mockery within this conversation, may have resulted in Lucy becoming defensive. Resulting in a disregard of this challenging perception.

After challenging the FY1 doctor's perception, Lucy takes the opportunity to explain her own perceptions of General Practice:

> *"Then I was saying one of the things I actually really like about GP, as a profession, is that I find that because you sit down and have all those patients records from all of their encounters with you, because they always go to that GP, and you do all of the history, all of the exams, you then refer them and you get letters sent back to you and you can sort of organise the whole thing as you want, it's a lot more in your control."* Lucy, dairy entry 11, line 15-19.

Thus, Lucy shares her own perceptions; whilst acknowledging that she thinks the doctor's perception is fixed, and she will be unable to change this, she vocally supports General Practice. These examples of positive support may go on to influence the perceptions of others within the medical community.

At a similar time in the diary keeping process, Lucy has a discussion with another FY1 doctor regarding her career intentions:

> *"I was speaking to an F1 trainee about different career roles for the future and she was asking what I wanted to do and I said 'potentially GP but still considering some other things, not entirely sure' and she was saying the thing that puts a lot of people off GP is the fact that you get a lot of patients that have very vague symptoms that you can't really help in the sense that there is no pathology there that you can put it down to."* Lucy, diary entry 10, line 4-8.

Whilst this FY1 doctor also vocalises a negative aspect of General Practice, Lucy reacts differently to the case above:

> *"It sort of made me think actually, one of things that maybe is a bit more disappointing about GP as a specialty is that sometimes you're putting in a lot of time and effort into patients that don't want help versus putting in a lot of time and effort into patients that do want help but you can't help because it's not a particular illness."* Lucy, diary entry 10, line 11-15.

In this case, Lucy considers the perception offered to her by her colleague, accepts in, integrates it into her existing knowledge of General Practice, and finally reflects upon it; considering the difficulties this scenario may pose.

The perception of the FY1 is not in direct contrast to Lucy's own perception. She has seen some difficult cases like this when seeing patients with mental health disorders in her own GP placement. It is therefore less challenging to integrate this perception with her own truth, when compared to the above discussion with the FY1 on call.

The tone of this conversation inferred in Lucy's audio diary is also in contrast to that of her discussion with the on call FY1. The language and tone of the diary entry suggests a more balanced, respectful conversation. Which may be more likely to promote consideration and reflection, rather than irritation and defensiveness.

Discussions with friends

Three further diary entries by Lucy concern discussions held with peers, other medics on her course with whom Lucy shares her experiences. In the first of these, Lucy shares a discussion with a friend regarding GP careers:

> *"She was saying how one of her best friend's mum is a GP and she also does personal gym training and other health related things, but not all the time doing GP. I'm really, really into sport and fitness things and I feel like I quite like the idea that GP allows you to hyphenate your profession with other things, which is almost a work balance in a way where you aren't overwhelmed by other tasks you need to do."* Lucy, diary entry 12, line 7-11.

Whilst Lucy and her friend both consider this flexible, portfolio career a positive of General Practice, something that would attract them to the role, it is somewhat in contrast with Lucy's thoughts about part time working, discussed earlier in this chapter. In her debrief interview, Lucy highlighted how part time working may be seen to attract those who are not committed to medicine full time, and may therefore be to the detriment of the prestige of General Practice. However, she does not interpret this portfolio career in the same way. Indeed, she identifies that knowing that GP enables variated, flexible work may make General Practice a more popular career choice.

The cause of this dichotomy is unclear, Lucy clearly sees balancing work with home, and a second career as attractive for her. However, her opinions on how this may affect the perception of others are varied.

In her next diary entry, Lucy relates a discussion with a friend from university regarding future career choices. In this discussion, Lucy's friend initially states she is unsure about her future career. After Lucy raises her own interest in GP, her friend becomes more open about her own career intentions:

> *"I think she took me saying I would be interested in it as a signal that it was okay to be interested in it. At which point she was like 'oh I actually have also thought about that', but then she went on to say both her parents are surgeons and they've always seen GP's as not proper doctors, so she had that outlook."* Lucy, dairy entry 13, line 7-10.

We see in previous diary entries from participants in this study, the stigma associated with General Practice, and how it may be presented to undergraduates. Lucy speaks of this encounter with sadness, that her friend is encountering these stigmas at home, and that she is therefore embarrassed to discuss her genuine career wishes. Although Lucy does not feel that this experience impacted upon her own perceptions of a career in General Practice, nor her intentions to pursue this, it highlights other pressures students may be facing in their career choice. It further indicates that such negative perceptions, which appear to be societally held within the medical school, may exude further into student's lives outside of the medical school.

In her final reflection surrounding conversations with peers, Lucy shares a discussion with a friend who was currently on her GP rotation:

> *"What she was saying to me was that she thinks she will probably do Paed's when she chooses to specialise but then when she older do GP. I was asking her what made her decide that and she said she does really want to do Paed's but she's worried about the work/life balance and the lifestyle that comes with it and from her experience of GP… She was really enjoying that placement, she really enjoyed the lifestyle, really enjoyed the team and everything was just like there and convenient unlike how it often is in hospitals"* Lucy, diary entry 15, line 9-12, 14-15.

Lucy's friend reiterates feelings that Lucy has expressed, in which enjoyment and interest in the clinical subject is a key factor in considering a future career. As students, the most

direct way to gauge this enjoyment is through clinical placement, where one can experience the day-to-day life of the GP, and reflect upon how this may suit their future career plans.

Lucy's friend does highlight a perception that has been seen in diaries of previous students, that she may choose to follow a career in General Practice following an early career in Paediatrics. Whilst discussed in a more positive tone than the critical discussions in Dave's diaries, the fundamental perception remains the same: General Practice remains a second-choice career, for when one can no longer manage a more difficult speciality in a hospital which one prefers.

Lucy does not consider this discussion to be negative, indeed, she is pleased that her friend has discovered aspects of General Practice that she herself is enthusiastic about. However, this highlights the proliferation of these perceptions, throughout institutions in the UK.

<u>Perception of a layperson</u>

Following a number of diary entries regarding the perceptions of General Practice of her peers and colleagues, Lucy reflects upon an encounter with her spin instructor.

> *"And then he, as people often do when they find out you're a medical student, started talking to me about his own experience with the NHS and things. It led on to him saying 'ah I've got no time for GP's at all because they missed my granddaughter's meningitis and she ended up in hospital'."*
> Lucy, diary entry 24, line 5-8.

Lucy expresses her disappointment that this acquaintance makes such a sweeping statement about all General Practitioners, and goes onto explain:

> *"I do find those encounters quite challenging and I would say I have experienced that in the past. Sometimes it will be about the NHS rather than GP's but I would say I don't often get people saying doctors are bad. It's funny that it seems to be something where people are 'oh GP's are bad'. Maybe that's because there are some bad GP's… I think people think 'oh GP is an easy option, I'll go for that' at which point if you're doing it for that reason you are more likely to be a bad doctor" Lucy*, diary entry 14, line 18-22.

This challenging experience adds to those Lucy has previously encountered, compounding the negative perceptions which she is surrounded by. Lucy continually encounters this anti-

GP rhetoric, and whilst she does not feel that it has an impact upon her, there may be an impact upon other undergraduates.

Being praised as skilful in a small group seminar

During the study, Lucy attends a GP communication skills day. During this session she role-plays a history taking exercise with an actor, who is regularly used by the medical school for these sessions. In this scenario Lucy had to discuss follow up with the simulated patient, after a successful operation to remove a cancer. She felt she did well in this scenario and received positive feedback from the actor:

> *"The facilitator was like 'how do you think that went?' and I was like 'oh I think it went okay' and then started talking and the actor interrupted him and was like 'it went more than okay' and just gave some really kind feedback. So, I think that was quite a nice thing and made me realise that communication is probably a strength of mine and I guess that is very helpful through all of medicine."* Lucy, diary entry 16, line 19-23.

In her debrief interview, Lucy reflected upon how this encounter was particularly important to her:

> *"I've had family members as well who have not been well and they don't even care about their illness, they care about all of the things and in my head, as a trained medic, not saying it but in my head 'what, like your fine this is all sorted' but then they are really worried about loads of other things. It just makes me realise that when you see your own loved ones being so worried about stuff that as a doctor your sort of 'all your problems are solved as far as I'm concerned'. I think it makes you realise how important it is to people."* Lucy, debrief interview, line 307-312.

We see through this reflection how Lucy's personal experience likely contributed to her success in the role-play. Knowing that the patient may have other worries, despite the successful removal of the cancer, resulted in her ability to consult with him more effectively.

We also see how praise in this role-play would be particularly valuable to Lucy. Knowing how her own family may have had dissatisfying consultations with doctors, and her underlying interest in holistic care, this praise reinforced that Lucy could manage these difficult consultations with a positive result for the patient.

Praise during a GP communication day reinforced to Lucy that she had the skills needed to pursue this career. In particular, praise from the actor highlighted her abilities to provide a

consultation which was positive for the patient. Overall, this experience strengthened Lucy's enthusiasm for General Practice, and reinforced her perception that she would be an effective General Practitioner.

Meeting an inspirational GP on placement

After her A and E rotation, Lucy returned to a GP placement. Whilst there she encountered a salaried GP who she described as inspirational. She describes an encounter between this GP and a patient with depression:

> *"There was a young man who had lost his son in a divorce and he was really suicidal and I could tell from just watching the consultation the rapport they had built and how much of a better place he was in and I really could believe that he also was in such a bad place. It very much came across that that was from the help she had given him and she really saved his life. So that felt really sort of poignant to see and be a part of."* Lucy, diary entry 17, line 14-18.

This GP embodies Lucy's core values of holistic care and communication, which have been seen in her previous entries. And as such represents a role model whom she aspires to emulate.

Lucy continued to develop her relationship with this GP, and both parties felt able to have an open and honest conversation regarding General Practice as a career:

> *"She sort of was advising me that GP is a very difficult career to go into… She sort of said 'as a friend if I was advising you I would love to be an advocate for GP, but as a friend I don't know if I would recommend it."* Lucy, diary entry 18, line 8-10.

The GP went onto explain how she felt General Practice could be particularly patriarchal, and that she had difficulty with female-orientated employment issues such as maternity leave. In her debrief interview, Lucy explains how she challenged this perception, considering many other specialities to be less equitable in their treatment of female doctors. Lucy goes on to say:

> *"I identify as a strong premise, that idea of not doing a job based on fear of patriarchal notions seems wrong to me and I wouldn't want that to be what put me off because the way to tackle them is by introducing women and fighting for those equal roles and things."* Lucy, debrief interview, line 193-196.

Whilst having the utmost respect for this GP, and considering her as a friend. Lucy completely disagrees with her belief about General Practice being a difficult job for women. We can see that Lucy's experiences leading her to this perception are different from those of the GP in question. Lucy has been in hospital medicine more recently than her senior colleague, and may have seen some of the difficulties women in some specialities face in gaining equality.

Lucy takes time to reflect upon why her respected colleague holds these opinions, and whilst she makes the decision not to incorporate this perception into her own, she does contemplate its value. Going so far as to consider, in the above quote, that if this perception were true, the responsibility she would hold in striving for equality.

5.2.4 Lucy: General Practice or Paediatrics? A continuous reflexive process

Lucy was the most prolific of the diary keepers in this process, and as such offers great insight into the process of being continually pushes away from and pulled toward a career in General Practice.

Whilst her scale likelihood of choosing General Practice as a career dropped from 8/10 to 7/10 over the course of the study, Lucy does not feel this represents a real world decrease in her likelihood to choose a career in General Practice. In her own words:

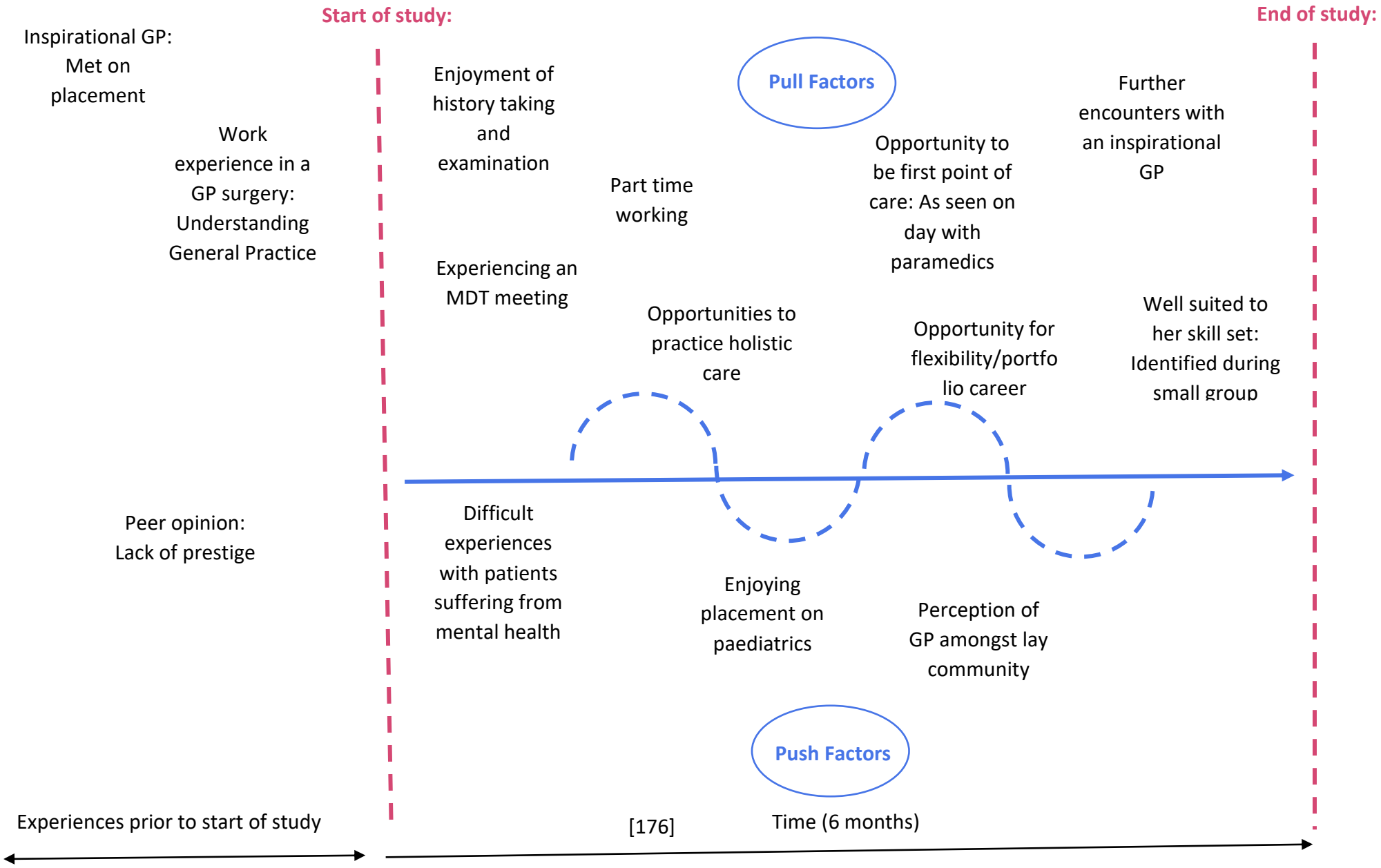
> *"I've got more information which I think has essentially meant that whereas maybe at the beginning I was on a steady baseline, now what's happened is I've got more information which essentially built up a pro's versus con's argument and overall I'm probably in the same place but just with more information and sort of oscillating. It's more as if I'm more informed but still sort of scaling the pro's and the cons." Lucy*, debrief interview, line 14 -18.

Lucy's own analysis of her pursuit of a career in General Practice or Paediatrics as "*oscillating"* perfectly captures the reflexive process which she has demonstrates throughout her diaries. A process in which following an experience, Lucy considers and applies it to her perception of each career, and then continues to reflect upon how this may change her career intention.

Lucy's internal driving force, to deliver holistic care to her patients, has also driven her reflection. Experiences which have reinforced an ability to deliver this care have had a particularly strong impact upon her career intention.

Figure 20 is a pictorial representation of Lucy's journey through the longitudinal study, and experiences which have pushed her away from, or pulled her toward a career in General Practice.

Figure 19: Pictorial representation of Lucy's push and pull factors over the course of the longitudinal study



5.6 Nicola

5.6.1 Demographic Details

Participant code	3203
Year of study	4
Gender	Female
Age	<25
Ethnic group code	1 (English, Welsh, Scottish, Northern Irish or British)
GP Likelihood (start of study)	5/10
GP Likelihood (end of 8-month study)	5/10
"Top three" Career Choices (start of study)	Neurology, Geriatrics, General Practice
"Top three" Career Choices (end of 6-month study)	Neurology, Geriatrics, General Practitioner with special interest (GPwSI)

Table 16: Demographic details Nicola

Nicola was born overseas, and moved to the UK for her undergraduate training. She hopes to be able to pursue a career in Neurology or Geriatrics. However, she wishes to return to her home country in the future, and believes General Practice may offer her the best opportunity to do this. Her likelihood of choosing a career in General Practice has not changed over the course of the study. Nicola was also the only participant in the longitudinal study during the coronavirus pandemic, which provided a context to her diaries not seen in other participants.

5.6.2 Experiences prior to commencing longitudinal study

<u>Perception of General Practice having lower prestige</u>

Early in her first interview, Nicola explains that people in her institution often state they do not want to be GP's. On questioning she elaborates this:

> *"It's not like viewed negatively, but I think sometimes people don't look upon it (General Practice) with as much admiration as maybe choosing a specialty route. I guess it doesn't take as long and there is some sort*

of…what's the word…. like there's a status to being a consultant compared to being a GP." Nicola, first interview, line 20-23.

Nicola's choice of words "*as maybe choosing a speciality route"*, implies that General Practice is not perceived as a speciality in its own right, compared to its hospital counterparts. As well as considering the length of time taken to become a GP to have an impact on its prestige, Nicola considers that this may be due to the push towards recruiting more General Practitioners:

"Because there is such a need for GP's, people view it as sometimes an easier path because its maybe not as competitive to get into as a specific specialty track." Nicola, first interview, line 32-33.

Nicola reiterates perceptions that have been raised from narratives in other institutions, and similarly does not identify direct sources or experiences which led to the development of these perceptions. Nicola identifies that these perceptions are present around her, and that "people think", but does not offer a specific time when this perception was presented to her.

<u>Lacking skills for General Practice</u>

Whilst Nicola respects General Practitioners, and has encountered many GPs in her home life, through her mother who is a paediatrician. She expresses that she thinks she is lacking some of the skills needed for this career:

"My mom has a friend from home, he is like one of the only GPs in a small town and he can chat for hours, he knows everyone in the community and he is a very approachable person. It's not that I'm not friendly and approachable I just think I don't necessarily have the best personality to be a really good GP." Nicola, first interview, line 57-60.

General Practice in Nicola's home country is broadly similar to in the UK. The main difference is in rural practice, where there are many small and isolated towns. In these areas the GP is a prominent figure in the community, and may also manage a small cottage hospital. Nicola identifies that she is lacking in some of the traits that her respected family friend holds. Traits which she considers make him a good GP.

<u>Experiences with own GP</u>

In spite of feeling that she lacks the skills to become a GP, Nicola describes positive experiences with her own GP, someone who is also known to her through her mother's social circle:

> *"She is someone who is very approachable, she like just a really kind person, very easy to talk to her about pretty much anything. I think the last time I would have gone to her was to get lesions removed and I was like a teenager and I remember being kind of embarrassed about it and she was so chilled about it she was like 'we are just going to freeze them off', like a really quick easy experience, I guess."* Nicola, first interview, line 82-86.

Nicola describes these early experiences positively. As some of her first experiences with a medical professional as a patient, she describes her doctor as having characteristics which she also sees in her close family friend. Prior to attending university these experiences with GP's socially, and professionally, have developed a strong stereotype of these clinicians as approachable, and clinically efficient.

<u>GP placements</u>

Nicola reflected upon her placements prior to the study as being particularly impactful on her perception of General Practice. She describes GP supervisors in her placement as "fun" characters, who were committed to their work and piqued her interest in the speciality. When questioned about the effect of an interesting supervisor on one's perception of a speciality she elaborated:

> *"I think that's the case with any specialty… (inaudible) that I've not been interested in but then you have a really good supervisor and all of a sudden, you're like 'oh that's quite cool' and vice versa as well you have a bad one that you thought you'd like and you don't really like it. I think it does make a really big impact on your opinion of the specialty, like how good an experience of the placement you have."* Nicola, first interview, line 116-120.

The ability of a supervisor to reinforce one's perception of General Practice has been seen in other narratives. Certainly, in Nicola's case, General Practice is already held in high regard. However, the introduction of such a supervisor also enables her to access the clinical topic, to see how these clinical topics may be interesting and enjoyable. Something which she had previously not considered when thinking about General Practice.

Becoming fixed on a career in neurology

Although not discussed in her first interview, Nicola highlighted in her debrief a point where she believed she became fixed on a career in neurology, in her first year at medical school:

> *"We had to do a project and I did mine, it wasn't even my first choice, but it was on motor-neurone disease, maybe I was still into neuro surgery at that point, anyway I ended up doing this project and I really enjoyed the project and then I did my elective after that with the supervisor of my project and she was a neurologist. I think since then I've been; I wouldn't necessarily say fixated, but it definitely been the thing that's most captured my interest and I haven't found another speciality that I've found more interesting since then."* Nicola, debrief, line 37-41.

Nicola highlights a process of fixing her sights on a career in neurology. She begins with a concept of neurosurgery being a suitable career for her, and chooses a project which she feels broadly reflects this area of interest. She finds motor-neurone disease sufficiently engaging that her belief changes, identifying neurology, the medical treatment of neurological conditions, as her ideal career. Now all other careers are measured against the benchmark of neurology. Experiences in neurology, such as her elective, are sought out, reinforcing her belief that neurology is her ideal career.

As part of this process, we see that even now, three years on, Nicola continues to perceive neurology as her career of choice. As she continues to seek out reinforcing experiences, other careers have a greater wall of evidence to overcome if they are to be considered.

5.6.3 Experiences during the longitudinal study

Becoming a specialist in a patient group

In her first diary, during a General Practice rotation, Nicola spends time reflecting upon the debate between specialism and generalism:

> *"I think a lot of the time people…think you (the GP) are not a specialist but you are a specialist in this little area, this segment of the city. Which I think is quite an interesting way to frame it actually. Following up on that point I think that if you were to frame it in that way it almost might seem a bit more appealing because I think a large reason why people are so attracted to specialties, over general practice, is because they like the idea of being a specialist in whatever it might be, like the top person, the person who knows everything about this one thing."* Nicola, diary entry 1, line 20-24.

Whilst not regarding her placement itself, being on a GP placement and seeing the area in which the GP worked, alongside partaking in this study, was the trigger for Nicola to reflect upon this concept of speciality.

In this reflection Nicola touches upon concepts which have been seen already in this work, of General Practice being a less attractive, lower prestige speciality, and of the generalist being less valued than the specialist. Whilst she does not state that she holds these perceptions, this quote indicates that she is surrounded by them, and believes them to be perceptions held by others.

Her suggestion of the GP being the specialist in their patient group certainly rings true; through spending many years within one population the GP develops their knowledge of the medical needs of that population. Nicola goes onto suggest that framing this aspect of General Practice may make it more attractive. Suggesting that were GP to be presented as akin to the (perceived) more prestigious specialities, it would become a more attractive career choice for student doctors.

The suggestion of GP's being presented as more akin to their specialist counterparts is not a new one, there is a longstanding political campaign to change the "General Practitioner" to the "Consultant in primary care" ("GP?," 2013; Kulkarni, 2018). However, this belief that a change in name, or job description of the GP assumes that low prestige and lack of professional respect of the GP is based only upon these factors. When, in actuality, Nicola's diary entry suggests a deep-seated societal belief of the inferiority of the General Practitioner, which goes beyond the name or framing of the role.

<u>The impact of Covid-19</u>

Nicola was the only student to participate in the study during the Covid-19 pandemic, and as such offers a unique insight into the impact of Covid-19 on perceptions of General Practice. She reflects upon a conversation with friends, where they discussed career intentions in light of the pandemic:

> *"And actually, I've had a lot of friends saying that they really value their time and really enjoyed having this time to reflect and think about what's really important to them. A lot of them previously had been interested in pursuing specialty but are now interested in pursuing GP, largely because it*

gives them a flexibility to shape the career they want." Nicola, diary entry 3, line 7-10.

This appears to be a positive perception of General Practice amongst Nicola's friends. Having seen the effect of the pandemic upon their seniors, wishing to pursue a career which offers them flexibility, rather than a speciality within the hospital. However, this is dependent on a previously discussed perception surrounding General Practice, that it is "easier" than hospital medicine, and offers additional flexibility. Whilst the pandemic may therefore have encouraged Nicola's friends to consider a career in General Practice, it does not appear to have changed their underlying perception.

<u>Level of responsibility on placement</u>

Whilst on her General Practice placement, Nicola was given the opportunity to run parallel surgeries. These are student led surgeries where she was given the opportunity to consult with patients, present them to her supervisor, and discuss their management.

Nicola reviewed a patient who she suspected was suffering from giant cell arteritis (GCA), a condition in which the blood vessels become inflamed, which can affect vessels in the head causing headache, visual disturbance, and if untreated, blindness. Nicola explains that the GP did not feel that the patient was high risk for GCA, and wanted to take a more conservative approach:

"I didn't think I could just follow this conservative approach; I didn't feel comfortable with it because the NICE guidelines had advised differently as to how to approach with a patient in whom you suspected GCA. So, I went back and spoke to my supervisor and explained to her how *I was feeling and that I was uncomfortable with our current management and she was very nice about it and she agreed to take a stronger approach."* Nicola, diary entry 3, line 10-14.

Managing risk is key in the management of patients in General Practice, and it is understandable that Nicola, with less clinical experience was more comfortable with taking a "lower-risk" approach to the management of the patient. Despite the student taking none of the ethical or medicolegal responsibility for the management of patients, Nicola felt that she would be remiss not to raise her concerns. Nicola's ability to raise these concerns demonstrates an open relationship with the GP, one in which she felt she could question decisions which were made. During the debrief interview, Nicola was questioned as to if

she felt she could have questioned the decision of a hospital consultant in this way. Nicola felt that even if she strongly disagreed with the management of a patient, she would not be able to raise her concerns.

This raises the question as to why Nicola would feel able to discuss differences of opinion with a GP supervisor, but not a hospital consultant. Nicola has also spent a full placement developing a relationship with this supervisor, whom she has spoken of positively in previous diary entries. She has seen her supervisor most days; unlike in a hospital rotation where students often spend time in different clinics with different members of the team. The chance to develop a relationship with a supervisor in this way may explain Nicola's comfort in challenging her clinical decision (Kobayashi et al., 2006). However it may be considered that Nicola was "at ease" with challenging a GP rather than a hospital consultant due to previously discussed perceptions of hierarchy (Beament and Mercer, 2016; Kobayashi et al., 2006).

The GP supervisor went on to offer a practical learning opportunity, suggesting Nicola contact the appropriate department at the hospital to discuss the case, and ask for further advice. After discussing this with the relevant department, Nicola was reassured that the patient did not need admission to the hospital. However, this experience caused her to reflect upon the pressure of making decisions regarding patient care:

> *"I will say it does make me a little bit less keen on the idea of being a GP if I'm being quite honest because I do very much value the ideas of working* as *part of a team, obviously you're working as part of a team in GP but I think when you're in hospital the team is so much more tangible because they are all right there and your all-in-one big building together. Whereas when you're a GP it's much more separated."* Nicola. Diary entry 3, line 41-45.

Nicola's diary entry suggested that this encounter had made her feel that General Practice was less of a team environment than hospital medicine. The above quote suggested Nicola may have felt alone during the management of this patient. On direct questioning during the debrief interview she explained that she felt "*out of her depth",* and went on to say:

> *"The GP just didn't really seem like she was that worried about it. In retrospect I think it was because she didn't think it was GCA but then I sort*

of felt alone in this because I was really stressed about it." Nicola, debrief interview, line 130-132.

Whilst Nicola has previously enjoyed the independence given to her on GP placements, this experience appears to have resulted in more responsibility than she was comfortable with. Nicola reflected upon how this experience may represent the work of the GP, and as such, came to her conclusions surrounding the isolation of the GP compared to their hospital counterparts.

Autonomy of work as a GP

During her GP placement, Nicola reflected upon the autonomy that a career in GP offers compared to hospital work.

> *"You (as a GP) are your own boss, you set how long you want to work, when you want to work, how you want your practice to run and that's very appealing. The idea of being your own boss is definitely something that's glamorised in current day times, but I think it's for good reason, it's nice to have agency over your life and not have to be answering to other people."* Nicola, diary entry 4, line 32-35.

This quote does highlight some misconceptions surrounding General Practice; there are certainly external agencies such as clinical commissioning bodies which have input into the running of GP surgeries. However, as a GP, particularly a partner, one does have agency into the day to day running of the practice, and how services are provided.

Nicola has experienced some of this agency during her placement, and reflects that this is an appealing feature of General Practice to her.

Frustration of A and E staff

Following her GP rotation, Nicola began a placement in A and E, during the height of the covid-19 pandemic. There she experienced the denigration of General Practice by senior colleagues. She begins by explaining how busy the A and E department was, with long delays and lack of beds. There were a number of referrals for patients from GP who were not acutely unwell, which led to colleagues expressing their frustration at local GP's. Nicola offered the following reflection upon this experience:

> *"I think its difficult practising medicine in hospital* at *the moment but it's also difficult practising medicine in the community at the moment as well*

and I think that A & E doctors might forget that a little bit. So, I understand their frustrations but I do think they lack a bit of understanding of what it might be like out in the community at the moment and having just been in the community I can definitely understand where the GPs are coming from." Nicola, diary entry 5, line 26-30.

The frustration of the hospital doctors in a stretched department is understandable. Nicola makes efforts to see both sides of the argument, understanding that General Practice is also under pressure. This feeling of "them and us" may result in some students feeling that they need to "choose a side", but Nicola remains neutral. The proximity of her GP placement to this A and E placement may have enabled this reflexivity. Nicola has experienced the pressures on General Practice during the pandemic, so is able to compare her experiences in A and E to those on her GP rotation.

Nicola goes on to share her friend's experience:

"One girl I've been on placement with was very much thinking she wanted to do GP and now she's been on A & E for a few weeks has changed her mind and is interested in A & E now. I don't know whether that's because of the fast pace of the work or perhaps it does have something to do with how general practice is being viewed at the moment." Nicola, diary entry 5, line 21-25.

Whilst Nicola is unsure as to if this friend was attracted to A and E because of the fast pace, or discouraged from GP because of the denigration, she highlights that the attitude within the hospital environment may have been partly responsible for this change in career intention.

5.6.4 Nicola: Practicalities vs passion in career choice

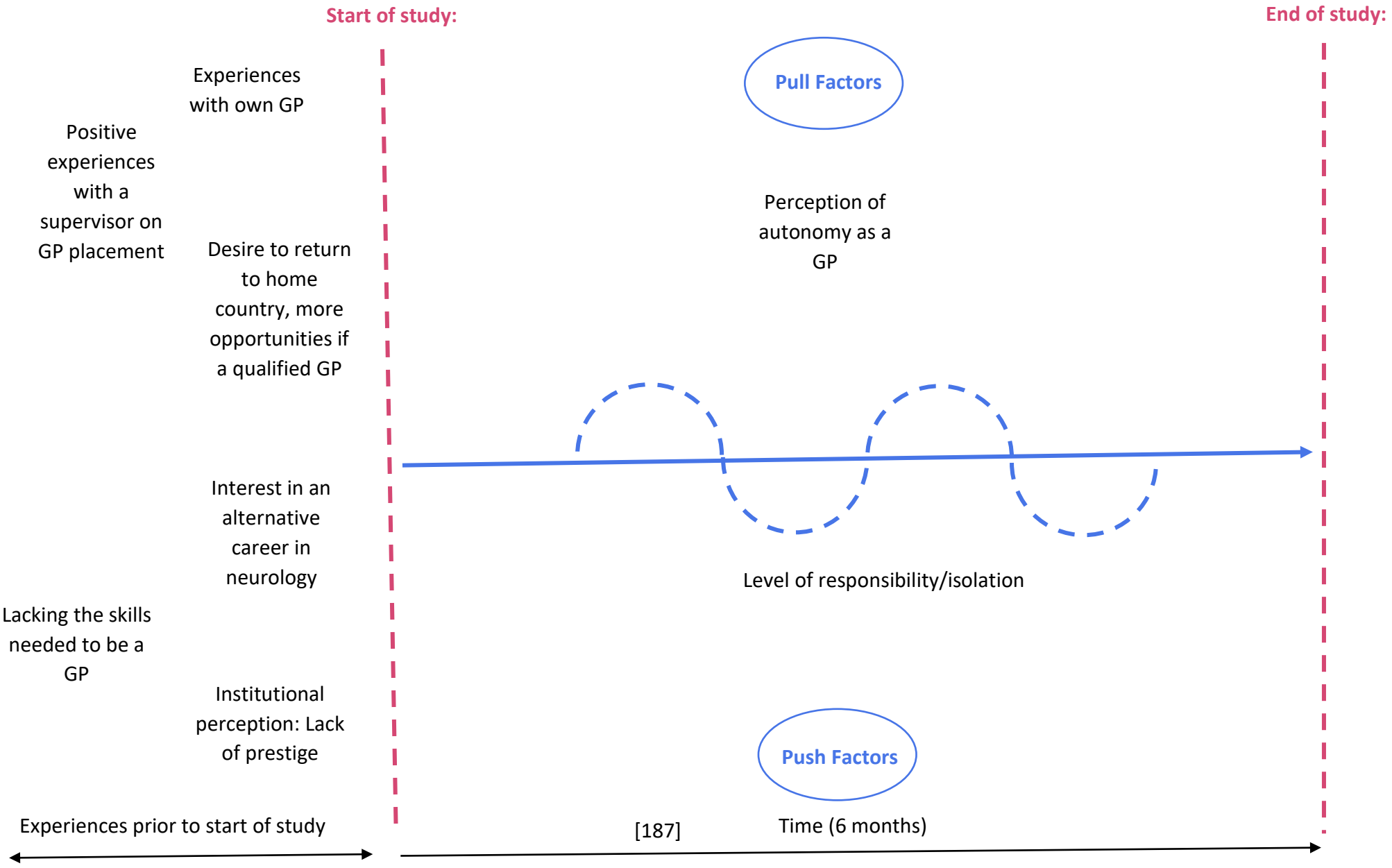
Nicola identifies that she fixed her sights on a career in neurology early in her undergraduate career. She provides an example of the difficulty of changing a perception, once it has been reinforced over a prolonged period, by self-selected experiences.

Her desire to work in her home country has led her to consider a career in General Practice, whilst this would not be the career she is "passionate" about, it would offer her a greater chance to return home to her family. As such, GP does appear on her "top three" careers list, albeit as a "backup" option.

This consideration of General Practice as a career may explain Nicola's open minded and reflexive approach to the negative experiences she has. Particularly when experiencing denigration, despite the negativity of the situation, Nicola attempts to understand both perceptions, and reflects upon these.

Figure 21 demonstrates the push and pull factors experienced by Nicola before and during the longitudinal study. Whilst Nicola identified a number of push and pull factors she experienced prior to the longitudinal study, her diaries highlighted that whilst many of her experiences promoted reflection during the study, only a small number of these resulted in the development of push or pull factors.

Figure 20: Pictorial representation of Nicola's push and pull factors over the course of the longitudinal study



5.7 Reflections upon Narrative analysis

The process of analysing the narratives of the participants and documenting their stories has been an extensive one. The differences in individuals' stories have been striking, yet all the participants discuss a similar societal perception of General Practice. Which may, in some cases, conflict with their own experiences. The complexities of the thought process linking experiences, perception, and career intention has been more elaborate than I imagined.

Driving force

Each participant has indicated their own driving force, a desire for their future career, areas of interest, and topics they particularly enjoy. This driving force is internal to the student, related to their own personality, and differs widely between participants. The concept of driving force is something that transcends medical education, we can all identify our internal priorities and desires for our future. For myself in my career decision making, this was an enjoyment of the breadth of clinical cases seen by the GP, and a desire to manage patients holistically.

This internal driving force is unchangeable by outside influences; we as educators, or later employers would be unable to change the driving force of another. Although it may change for internal reasons, for example, the arrival of a child may cause a doctor to wish to have more family time outside of work. Therefore, they may be driven toward a career that offered part time work and flexibility.

Diagrams of Narratives of students

Attempting to produce a pictorial representation of a complex, longitudinal process has been challenging, and has gone through multiple iterations prior to that which is presented in this work.

~~A~~ straight line and a sine wave represent the changes in the student's career likelihood over time. Although a student's overall intention of pursuing a career in GP may not change over time, there are short term fluctuations in their perception of General Practice following day to day encounters.

The shortfall of the chosen diagrammatical representation is that it is unable to show any strength of influence. That is, it cannot be identified how much a particular pull or push

factor changed perception or career intention to any degree; only that they broadly fit into the push or pull categories.

Duration of the study

Following this analysis, it is clear that most students did not have a large change in their likelihood of choosing General Practice as a career over the course of the study. I considered a number of causes for this. It may be that students career intention decision making occurs outside of the windows explored in this work: Either in their lives before, or early in medical school, or following medical school in their foundation years. Indeed, Nicola describes a discrete point when she became fixed on her current career path early in her first year of medical school. The low numbers of first year students completing the longitudinal study may also be a factor in the inability to capture key points in this decision-making process.

Another cause for the lack of change in career intention captured in this study may be due to the duration of the study. Six months was considered an appropriate time to ensure engagement and minimise loss of participants, whilst capturing the experiences of the students involved. However, a longer study length may have been more effective at capturing evidence of change in career intention.

5.8 Chapter Summary

The narrative analysis of the six longitudinal participants has produced six stories, all of which are distinctly different. Although participants share some similar experiences, their responses to these experiences vary widely. Whilst experiences may change perception, this is more than a simple linear process. Change in perception involves reflection upon experiences, in light of previous experiences, and internal driving factors. As a result, experiences may reinforce perceptions, change them, or be disregarded for not fitting in with the participants understanding.

This section of analysis has contributed to the following research objectives:

2. To identify the perception of General Practice as a career of medical students in their first and penultimate years at university.

3. To understand how experiences at university may have a causal effect upon the perceptions highlighted in RO2.

Participants have described their experiences over the course of their longitudinal diaries, and have highlighted perceptions they hold in light of these experiences.

4. To understand how experiences outside of the university environment may have a causal effect upon the perceptions highlighted in RO2.

Whilst many of the experiences described and reflected upon have occurred in the university environment, participants have also shared experiences with family and friends in work or at home.

5. To identify and understand any relationship between the development of a student's perceptions of General Practice and their intention to pursue or reject it as a career.

Participants have elaborated upon how these experiences and perceptions have impacted upon their career intention. In their debrief interview students were also asked to rate their likelihood to be a GP, and discuss how and why they think this may have changed or remained static through the course of the study.

Chapter Six: Analysis of Narratives

6.0 Chapter overview

This chapter focusses upon the Analysis of Narratives, the themes drawn from the previously explored narratives, applied to and elaborated upon using data from the focus groups, as per section 3.4.10 of the methodology. These resultant themes were then used to produce a model of Factors influencing medical students' perception of General Practice and intention to pursue it as a career. This chapter first presents the four main themes identified within this work, and composite parts, then goes on to explain the relationship identified between these themes as a model.

For the purposes of this chapter all participants are referred to by their participant number.

6.1 Factors influencing medical students' perception of General Practice and intention to pursue it as a career.

Three main themes were identified in the Analysis of Narratives; External influences of career perception, driving force and the "they say" phenomenon. The model below elaborates upon the component parts of these themes, and their relationship to one another:

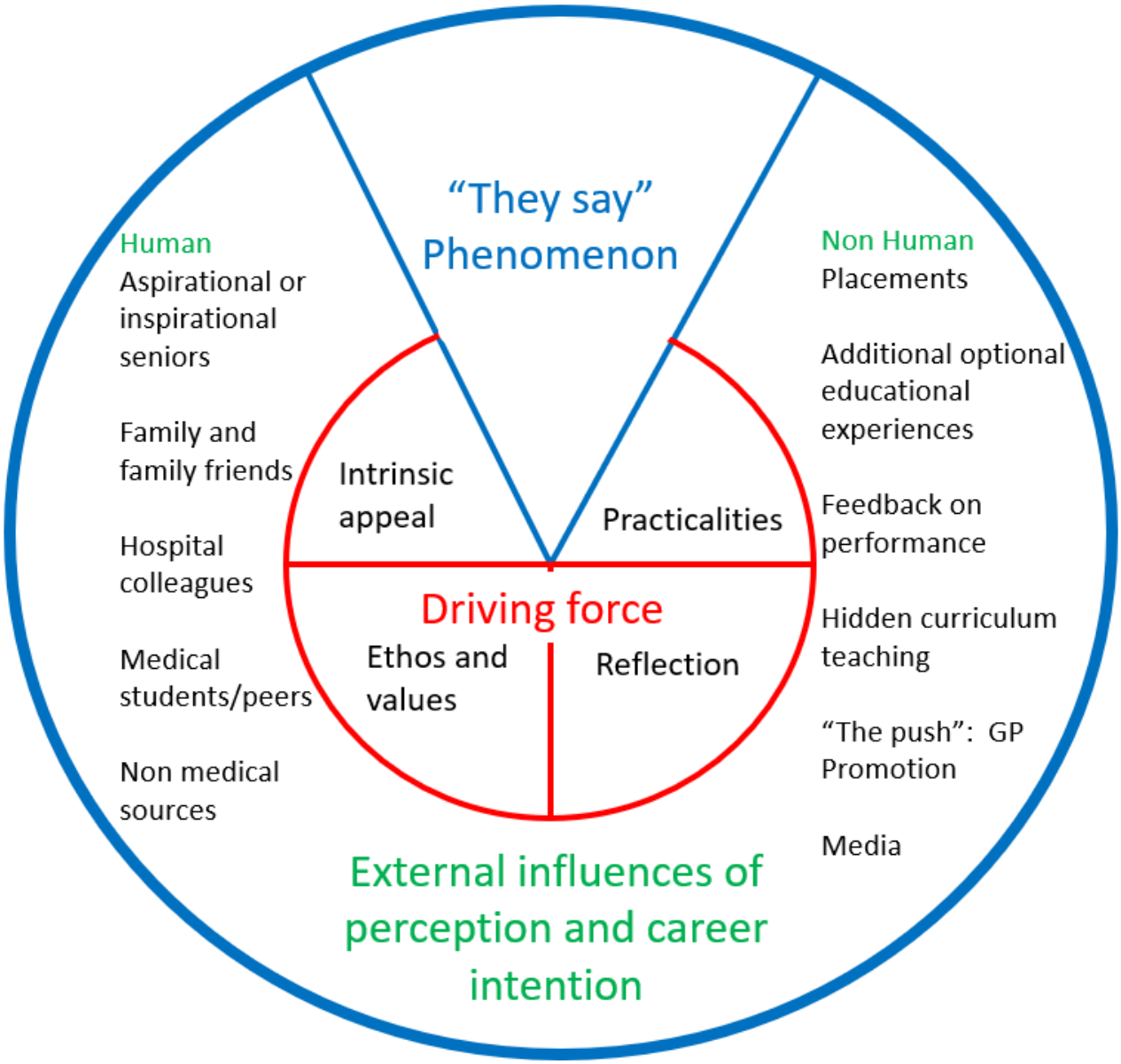


Figure 21: Model of Factors influencing perception of and intention to pursue General Practice as a career

Driving force, split into its four component parts, is represented in the centre of the model, being the internal process underpinning career intention. External to this are the External influences of perception and career intention, again, split into the aforementioned sub themes of Human and Non-human influences. Surrounding all of these influences, and forming a wedge which drives through all the external influences and driving force is the passive and pervasive "They say" phenomenon, here represented by the blue wedge and circle. The wedge and circle were chosen to represent that this phenomenon encircles all other experiences, but also permeates into the internal thought processes of the student.

The remainder of this chapter discusses each of these themes in further detail, beginning with external factors, then moving on to discuss internal factors. Finally, the "They say" phenomenon is explored, and the entire process of analysis reflected upon.

6.2 External influences of perception and career intention: Human

The first emergent theme from the data was that of external influences: That is, experiences had by the participant which have an impact upon their perception of General Practice, and a potential impact upon their career intention. These influences were often highlighted as impactful by participants, and were a common focus of discussion. Capturing these external experiences was tied into the objectives of this work, and their identification was an anticipated end point of this study.

These external influences can be split into human and non-human factors. Human factors cover experiences that are explicitly with others. Human factors have been categorised according to the persons with whom the participant shares the experience, as participants ascribe different values and weights to those with whom they have experiences.

6.2.1 Aspirational/inspirational seniors

The largest group of experiences captured within the Human theme were those with senior doctors whom the participants considered to be inspirational or aspirational. That is, those who encourage and inspire them toward a career in GP or otherwise, and/or those who they aspire to emulate.

Aspirational/inspirational seniors have occurred frequently in the previously discussed narratives, commonly these experiences involve witnessing behaviours relating to patient care:

> *"He (GP) had been practicing for about 50 years and he was that kind of person that just had a really nice demeanour with his patients and obviously really cared about them in all senses. Was obviously someone who was really satisfied with his career because he was still doing it even though he could have probably retired at that point but still went to work every morning at 6.30."* 3202, focus group 6, penultimate year, line 117-121.

Whilst these senior colleagues may be considered as role models, the term "role modelling" in medical education has been historically used to describe members of the faculty, those

who teach students as part of a university role (Burgess et al., 2015; Irby, 1986). The data in this study identifies a broader group of inspirational or aspirational seniors, who may come from other aspects of the participant's life. One key area in which a student may experience an inspirational or aspirational senior is in their encounters with clinicians in their personal lives:

> *"I think one thing that's quite nice is they remember details about you from previous cases, like I've had this chronic elbow injury for a while and my GP was the first guy I went to for it and that was three years ago and he still asks me how I'm doing and how its feeling etc, etc."* 2101, first interview, line 144-147.

Whilst this doctor meets some of the aforementioned characteristics of a role model, in this case trough the demonstration of holistic care, he has not been encountered in a University role; defying the traditional characteristic of a role model (Burgess et al., 2015; Irby, 1986). He has been encountered prior to Lee's medical career, yet in his primary and debrief interviews, Lee talks about his experiences with this clinician in depth, far more than any clinician met through the university. These early experiences with aspirational/inspirational seniors cannot therefore be discounted when considering the development of medical students' perceptions of General Practice before they set foot in medical school.

Experiences with inspirational/aspirational seniors are not merely observational, they may include discussion with these doctors:

> *"We (participant and GP) actually had a discussion about GP as a career. They were like 'so many people see GP as this and that' and essentially just discussed the stereotypes that we've spoke about today (in the focus group) 'I'm not saying you should all go home and want to be GP's but I want to show you that GP is more than all of those things". "*2202, Focus group 4, penultimate year, line 397-399.

As the described GP has acquired the status of an aspirational/inspirational senior, due to actions similar to those highlighted earlier in this chapter, 2202 values this discussion, and considers its content. The GP in question has challenged some of the perceptions that may be held of General practice, and due to their aspirational/inspirational senior status, this challenge is taken as truth, and valued by the student.

Inspirational and aspirational seniors may fulfil the position of a role model, demonstrating skills which the student aspires to, however their role transcends this. Informal discussions with these colleagues' cause students to reflect upon their perceptions, due to the respect they hold for these seniors.

Not all seniors experienced provide a positive impact upon perception:

> *"Before I went into Med School, I did some shadowing with a family friend who's a G.P. and he, as a person, was quite depressed, very laconic in the way that he would approach his patients, and his life, very depressive outlook, and just had a negative outlook towards being a G.P. and going into Medicine."* Ahmed, first interview, line 85-88.

The above senior could certainly not be described as inspirational to 1206. Whilst the perceptions of these seniors are considered by participants, their impact is greatly over shadowed by the influence of an inspirational/aspirational senior. The enthusiastic language demonstrated in previous quotes regarding inspirational/aspirational seniors is certainly not reflected in the above quote from Ahmed. This "laconic" outlook by the GP in fact has resulted in Ahmed scrutinising his opinion, and assigning it a lower value compared to an inspirational colleague.

Such experiences as the above are rarely discussed in the data, the focus of data collection was upon experiences which participants felt were important and valuable. One interpretation of this phenomena may be that students consider experiences such as the above to be of less importance to their own perception of General Practice.

6.2.2 Family and family friends

The experiences shared by family members and family friends are highly valued by many participants in the study.

The most obvious of these, participant 1207 (Dave) described in the Narrative analysis the impact of his father, a GP, on his perception of the role and workload of a GP.

Similarly, 1103 describes experiences with a family member which have impacted upon his perception of General Practice as a stressful job:

> *"My uncle's a GP and goes to a few practices and often tried not to dissuade my generation from general practice but just talking through a lot of problems they have which aren't necessarily medical related but*

managerial, political and legal issues that have a big impact on their work load." 1103, focus group one, line 201-203

Growing up with a family member who is a General Practitioner represents the earliest, and most pervasive influencer of perception. A constant source of information about who a GP is, and the work that it entails, from a source that is trusted more than any other, particularly during childhood. As such, as was discussed in 1207's narrative analysis, these ingrained, reinforced perceptions from early life may become more difficult to change.

This first-hand evidence shares similarities with the category of aspirational/inspirational senior. A GP family member, particularly a parent, may of course be inspirational to a student; a GP family member is known to increase a student's likelihood of choosing GP as a career (Deutsch et al., 2013). However, as in the case of 1207, whist respecting the parent's career, a student may not always aspire to emulate it.

Experiences with family members may also occur with those who are not from a General Practice background:

"I don't know whether it's my family because I've got a few surgeons in my family, GP was always like an easy option" 1201, focus group 2, line 218-219.

Whilst participant 1201 considers herself very likely to choose a career as a GP; due to the influence of her mother, a GP whom she finds inspirational, this quote does demonstrate some of the negative impact that family opinion may have upon career intention. The perception of GP as an easy option, which 1201 does not hold as her own due to her experiences with her mother, continues to result in some embarrassment. Despite contradicting her own perception, the opinion of close family members remains highly valued, and as such is considered in 1201's career decision process.

6.2.3 Hospital doctors

Whilst on placement, students describe experiences relating to General Practice with hospital doctors. Hospital doctors may, of course, fit into the category of an inspirational or aspirational senior, despite only GP's being described this way by participants in this study. This categorisation of experiences therefore encompasses experiences with doctors within the hospital who do not fit in this aspirational role.

Instances of denigration of General Practice were recorded from some hospital doctors:

"Sometimes you get throwaway comments, like by doctors, they'll be like 'oh why has a GP done that?' kind of just based on some things the GP has done on some correspondence or something or like prescribing errors they'll point out." 3204, focus group 4, line 514 -516.

Comments such as these, which in this case are not ascribed to a single particular doctor are described by most participants in this study. The implication of such comments, as seen above, are that the General Practitioner has provided sub optimal patient care. However, participants do not hold these comments as equal in value. In an example previously used in 2202's narrative analysis, she describes

"I was talking to the F1 on-call about careers and he was saying he didn't want to do GP because he doesn't like the idea of sitting down all day. It was interesting because a lot of what an F1 does is admin anyway and it sort of just essentially doing a lot of ordering, it was as if he was arguing that he didn't want to do all these referrals and ordering tests, but that's what he does anyway." Lucy, diary entry 11, line 4-8.

We see here that 2202 is sceptical of this opinion, and thus its value is diminished compared to experiences with other doctors.

6.2.4 Medical students/peers

Participants will arguably spend the majority of their term time with other medical students. Whilst on placement, students will be grouped with students in the same stage of training, and will meet senior or junior students in the doctor's mess, library or canteen. Due to the differences in studying medicine compared to other degree courses; particularly the length of the course, and the hours required to be worked; groups of medical students will often live together. Social societies and sports teams specifically for medics are commonplace. As such, students spend a great deal of their term time surrounded by other medics, therefore, there was an expected influence of these relationships upon perceptions.

As described in the narrative analysis, conversations with other students may be a positive experience, in which ideas about General Practice are shared and discussed with respect:

"She was saying how one of her best friend's mum is a GP and she also does personal gym training and other health related things, but not all the time doing GP. I'm really, really into sport and fitness things and I feel like I quite like the idea that GP allows you to hyphenate your profession with other things, which is almost a work balance in a way where you aren't

overwhelmed by other tasks you need to do." Lucy, diary entry 12, line 7-11.

Experiences with other students are not always positive, as in the quote below from participant 1204, who considers that GP is her second preferred choice of career, and who has a partner who is also a medical student:

*"I like GP a lot but when people are constantly .... you don't want to go into something that where everyone else looks down on you. My boyfriend doesn't have that higher opinion of GPs… You get a lot of people, not pressuring, but making comments about what you should be doing with your career which I think is a bit silly personally."*1204, focus group 3, line 151-153.

1204 alludes to the previously discussed "lower prestige" of General Practice, and her partners sharing of this perception. Whilst considering comments about careers from others as "silly", 1204 does imply a persistent negativity towards General Practice, which impacts her desire to pursue it as a career.

It is of note that there were perceptions regarding General Practice, which students could not identify as being from a particular source, that were widespread amongst the student population. These are explored later in this chapter.

6.2.5 Non medics

Students do also have experiences with friends, and other members of the lay population who are not from a medical background. The majority of experiences with lay people described by participants is negative in nature:

"I think there are times when you're speaking to neighbours and stuff like that, sometimes their perceptions might influence how you think. Like if my neighbours have had a negative experience going to their GP… it makes me think about GP's decisions and how they've thought about things in such and such a way or why they've done things in such a way. But then I won't necessarily have the full story as to what's going on." 3206, focus group 6, line 537-539, 543-545

The data indicates that lay people share negative experiences with General Practitioners freely with medical students. Whilst this study does not cover negative experiences with hospital doctors, and hence this was not shared by students, there appears to be an open culture of criticism of General Practice within the lay population, which has been reflected

in recent years in the media and press (Barry and Greenhalgh, 2019). When finding that a participant is a medical student, friends and acquaintances feel safe, or even driven, to share their negative experiences surrounding General Practice.

6.2.6 Relationship between human influencers

The above subgroups of human influencers been shown to have an impact upon medical students' perceptions of General Practice, and upon their likelihood of choosing General Practice as a career. Their impact is however varied, for example, experiences with an inspirational or aspirational senior may be valued more than that of a layperson.

Professional respect is implicated in the value given to the perceptions of others. Those for whom the participant holds a high level of respect, have their opinions and perceptions valued. This does not mean a blind acceptance of the perception of a senior: The participant continues to engage in a process of reflection, where they consider their acceptance of the perception of the influencer, as can be seen in 2202's narrative, where she questions the opinion of her aspirational senior.

Whilst this data does not provide enough evidence for a hierarchy of impact of human influencers, it does suggest that each individual assigns a value to experiences with and opinions of others. A complex relationship exists between human influencers, perception and career intention, which is not fully explained by this data.

6.3 External influences of perception and career intention: Non-human

Non-human external influences of perception and career intention include the experiences had by participants which did not explicitly involve interaction with other people. These experiences are mostly institutional, although include some experiences outside of the university environment. The below subgroups within this theme may include indirect contact with others, such as lecturers, actors, or seminar group clinicians. The differentiating factor between these and human influences is that non-human factors are non-dependent upon the relationship between the influencer and the student.

6.3.1 Placement

Placement is a large part of the medical students experiences, with the GMC stipulating that practical experience is an integral part of undergraduate training ("Clinical placements for medical students," 2009). For the most part, placements are arranged by universities, in a

variety of clinical settings including hospitals and General Practice. For the purposes of this work, the category of placement refers to mandatory placements arranged by the university; student selected components, or modules including placements which are chosen by the student in their area of interest, are covered in the next subgroup.

GP Placements

Placements in General Practice offer an environment rich in experiences which have the potential to change students' perceptions of the career, and their intention to pursue this.

Some students in the study attended institutions which provided short placements, sometimes only one day, in first year. These placements offered distinct early educational experiences which most participants stated they enjoyed: In the example below, 1107 shared her experiences after a clinical teaching session; that is a taught session such as a case discussion, delivered whilst on placement:

> *"More positive (after placement), because I had slightly negative views about going into GP before coming (to university) but then we had like a clinical session with a GP and she made it sound really interesting and I thought "actually, maybe I shouldn't close any doors yet".* 1107, focus group one, line 187-189

It could be considered that the GP in this case fits the category of inspirational senior. 1107 does not describe this encounter any further, it may be that were she to have future encounters with this clinician that they would have become inspirational. This also highlights that the themes and subthemes within this study are not present in isolation. Placements offer an opportunity to meet with aspirational/inspirational seniors, as well as offering experiences of the work of General Practice, and as such contribute to perception development as a complex and multifactorial process.

In spite of this enjoyment of GP placements, there was not always a positive impact on career intention:

> *"Well, I just went on a placement with a G.P. and I really enjoyed it actually. It was really, fun, and I was really sceptical about what it would be like, but I had a really good time actually… I think what the general perception is that it's boring, and that you see everything every day but when I'm a Consultant Surgeon I'll only be seeing Surgeries that I'm good at. So, it's the same sort of thing but I just think being a G.P. would be*

boring, really, sitting in an office all day, as opposed to being in Surgery, and getting more hands on, and being more proactive maybe." 1105, first interview, line 42-49

1105, a first-year student with aspirations of a career in neurosurgery, initially explains how he enjoyed his day in General Practice, highlighting how it was different to his initial perception of the GP "*just seeing coughs and colds"*. He does however later contradict this statement, in sharing his perception that as a GP you "*see everything everyday"*, considering this boring when compared to his intended career as a consultant surgeon.

We see in this quote that "real life" experience in the GP practice challenges 1105's pre-existing perception of General Practice as boring, but not in a way that is meaningful for his career intention. He still sees himself as a surgeon, even referring to "*when I'm a consultant surgeon".* Although this early experience had impact, it did little to change his deep-seated belief that he will become a surgeon.

Students in their penultimate year of university describe generally positive experiences in General Practice placements, although their experiences and perceptions are subtly different from their junior counterparts. Placements, for these older students give an opportunity to gauge their enjoyment of General Practice, and reflect upon how it meets their desires for their future work. In discussion about clinical placements participant 1201 states:

"I was drawn to either GP or A&E and I've realised that the reason that is, is because I either want to do GP and have your 10 minutes for the patient but you've got that continuity of care hopefully if you can be the named GP for that patient and if something doesn't sit right with you at the end of the day, you have the option to call them or bring them back in." 1201, focus group 2, line 118-122.

Whilst the more junior students discuss concepts such as GP being "interesting" or "boring", the senior students are able to identify more specific aspects of General Practice which meet with their own desires for their future. This suggests that over the course of four or five years of undergraduate training, students are more able to identify specific wishes for their future career. Spending time in multiple placements allows an ongoing reflective process, whereby the student experiences a speciality, and identifies if it meets, or contradicts their own desires for their future.

Not all experiences on placement are positive, even for those participants who feel that they do wish to pursue a career in General practice:

> *"Last year when we did our GP visits on the Wednesdays, our GP lass (supervisor) comes for the full day sometimes and we would do her jobs and tasks on the computer with her and it's never ending and you would always see when we are in consultations, because we would sit and do the consultations and write the notes, things popping up and saying like this prescription needs to be signed off, this is a new job and it would be like 50 or 60 tasks that she would have to do. Our GP was always telling us she comes in an hour before appointments and leaves an hour after the last appointment every day."* 1201, focus group 2, line 46-52.

Whilst 1201 identifies GP as her first choice of career, she considers the above as a negative aspect of General Practice. This placement experience demonstrates to 1201 the high administrative load of GP work. Whilst she considers this to be a push factor from General Practice, it does not appear to have had a significant impact upon her career intention, implying that other factors were more important in this decision.

We see in the above quote how an "honest" representation of General Practice is portrayed on placement. Although hospital placements are discussed by participants later in this chapter, students rarely see paperwork in relation to these placements. A possible explanation for this is that students are less likely to be exposed to paperwork in hospital placement, instead being invited mainly to clinics and surgeries, more "glamorous" aspects of hospital medicine. Thus, the student develops a biased view of administrative load in General Practice as opposed to hospital medicine.

Students in their penultimate year of university, as was also seen in the narratives, particularly describe inspirational seniors met on placement:

> *"There was a GP who after the third year was good. She really put a lot of effort into sessions and it was always really interesting and really varied. It was just really good. It was a constant good thing."* 1203, focus group 3, line 188 – 190

> *"I went to a GP and the GP that I met was incredibly intelligent, really, really fantastic at their job, really fantastic at teaching and I just found them so inspiring."* 2202, focus group 4, line 388-389.

In this way, the placements have offered an opportunity to come into contact with an inspirational or aspirational senior, and the impact that they have already been discussed to have upon perception and career intention. Through placement, students are exposed to these seniors over a number of weeks, or once a week for a full year. This enables the student multiple opportunities to have experiences with these seniors, allowing time for the inspirational/aspirational senior role to develop. Potentially due to the time these students have on placement to develop these relationships, senior students were more likely to describe inspirational seniors met on placement, as opposed to their junior counterparts.

The literature reviewed earlier in this study suggested that longitudinal placements, that is, placements where the student attends for part time for a longer period alongside placements in other specialities, have a positive impact upon intention to pursue a career in General Practice (McKinley et al., 2018; O'Donoghue et al., 2015; Walters et al., 2012). However, the participants in this case contradicted the literature:

> *"GP is the specialty that you feel least part of the team because you are only there for one day. I mean I was only there for a couple of hours in the morning on that day and there was nothing I ever did that was useful to them compared to other specialties where you can feel a bit more part of the team"* 2202, focus group 4, line 430-433.

In this case, the institution provides a placement in General Practice for one day a month, for the full year. One of the other students in the focus group goes on to say:

> *"I think that's ubiquitous. I think everyone's favourite days at medical school are days where they feel useful."* 2203, focus group 4, line 441-442.

These quotes suggest that during these longitudinal placements, students did not feel that they were integrated into the team. They were not able to "help" or "be involved" within the team. As a result of this, students did not find these placements enjoyable, leading to reflection that this may not be an "enjoyable" career.

The longitudinal placements discussed above do differ from those described in the literature; which mostly covers a GP placement one day a week. The reduced frequency in visits seen within this data may result in being less recognised by the GP team, feeling less involved, and therefore less enjoyment of the placement.

In summary, GP placements offer students the opportunity to meet inspirational/aspirational seniors and experience the "real life" workload of the General Practitioner. Students particularly valued placements where they felt useful and "part of the team". Placements early in the undergraduate course did offer students the opportunity to challenge their prior perceptions of General Practice, although not all students were open to this challenge. Placements later in the curriculum; once students had undertaken a period of personal growth, and reflected upon their desires for their future career, enabled students to "match" the career of General Practice to their own internal driving force, and consider if the two were compatible.

Hospital placements

Due to the aims of this study, there was significantly less data surrounding hospital placements. Students chose to discuss their GP placements far more frequently: this may be due to more experiences which change perception occurring in GP placements, or due to participants considering those experiences as changing perceptions, and being less likely to consider the implications of a hospital placement, when asked about their perception of General Practice.

When hospital placements were discussed, this was often as part of a direct comparison to General Practice, whereby the student noted which placement they preferred, and why:

> *"When we were on obs and gynae (obstetrics and gynaecology), all the doctors, midwifes, everyone sat together at lunch and discussed things and it felt like a really nice environment and I don't feel like a GP gets as much as you are literally in your room all day. You see patients and you talk to your partners or whoever else is in the practice about things but it's not the same."* 1201, focus group 2, line 273-276

In the above case, for example, 1201 identifies the wider team as a pull factor toward hospital work and compares this to their General Practice placement. The absence of a "team meet-up" during the working day may be considered a small part of the career of General Practice. This absence is, however, identified negatively by 1201, providing "evidence" for them, linking General Practice to perceptions of lone-working and isolation which have been discussed elsewhere in this work.

Thus a “pull” factor for Hospital specialities, encountered in a broadly positive experience whilst on placement, becomes a “push” factor for General Practice: Where GP placements are found to be lacking in experiences which the student considers valuable.

Whilst many students have these positive experiences in hospital, the most widely discussed negative hospital experience is that of denigration, as was seen in the narrative analysis.

Hospital placements allow students to experience multiple specialities, and identify which of these fit most closely with their own driving force. During these placements students may compare positive and negative attributes of hospital medicine and General Practice. Pull factors towards one of these may result in the development of a push factor from the other. During hospital placement students may also experience denigration, which may be impactful upon their perception of General Practice.

6.3.2 Additional optional educational experiences

In this study, most additional optional placements undertaken by students were SSCs (student selected components). That is, a placement during the academic year during which students are able to pursue an area of particular interest. For the purposes of this study, the category of additional optional placements as seen in the literature has been expanded to cover additional optional educational experiences. In addition to SSC’s this category covers work experience, career open days, and any educational experiences a participant may choose which are not part of the formal medical curriculum. All of these optional educational experiences provide an opportunity for students to explore and gain experience in particular areas of interest.

Sarah describes the opportunities presented to her in her GP SSC:

> *“I’ve been running my own parallel Clinics, and going out on visits with other healthcare professionals, and sort of been organizing my own timetable and the conversation allowed me to reflect on my placement and I think I’ve really begun to appreciate how much I’ve really, really enjoyed this placement particularly because I’ve had so much independence and responsibility, and I’ve learnt a lot about Meds, learning about the* role *of a G.P. and about other healthcare professionals and I’ve really started to appreciate those things.”* Sarah, diary entry 2, line 5-10.

Sarah, who considers GP her first choice of career, identifies a number of key points around a General Practice SSC, some of which are also reflective of compulsory placements. It has

previously been identified in this work, that being "useful" in a placement is both enjoyable and educationally valuable for students. Making them feel part of the team, and clinically valued.

Sarah identifies that an SSC in particular offered her more of these responsibilities. Whilst she may have been offered similar responsibilities in a compulsory placement, supervisory doctors within this SSC may have sought out additional opportunities for independent working for Sarah, due to her showing a particular interest in General Practice. The opportunity for this student-centred placement, tailored to 1205's learning needs, may result in experiences which allow for more autonomy and independence than their counterparts on compulsory placement, and therefore engage in a more impactful experience whilst on an SSC.

Sarah reflects that she enjoyed this SSC, and the learning it provided. As was demonstrated in her narrative, we see that this experience reinforced her previous desire to pursue a career in General Practice. Participant Ahmed, who also considers GP to be his first choice of career, vocalises this concept:

> *"I think they've (two SSCs in General Practice) probably solidified the decision. I don't think any job is perfect but with the SSC I did that reinforced that there is flexibility in the job and that there is a way to develop portfolio where you're not just doing one thing."* Sarah, debrief interview, line 10-12.

We see from the above quote, that the SSC did not challenge any existing beliefs, but reinforced these. The SSC was specifically sought with a perception of General Practice in mind, in an area that the student hoped to pursue in their future career. And then through self-selected experiences, these existing perceptions were reinforced. In this way, an SSC embodies all the best experiences of a placement, as it is designed and moulded to the participant's specific requirements, unsurprising therefore that it leaves participants enthused for their preferred career.

Whilst SSCs were the most frequently discussed additional optional educational experience, some students discussed experiences prior to university:

> *"My G.P.s back at home weren't great for work experience I didn't really get any there and so the first time I actually went into a G.P., … I went to*

an open day at the Brain Surgery Hospital and I think that's stuck with me since." 1105, first interview, line 55-57, 60-61

In this quote from participant 1105, who identifies his first choice of career as being Neurosurgery, we see the impact that early work experience may have upon perception and career intention. Throughout his interview, 1105 refers to "when" he becomes a surgeon. Having had no other experience in surgery aside from this open day, its impact has been such that it has not only affected his career intention, but how he identifies his future self.

We also see from the above quote that 1105 attempted to gain work experience with his GP and was unable to do this. One can only speculate the impact valuable and interesting work experience prior to medical school, may have had upon his perception.

"Before I went into Med School, I did some shadowing with a family friend who's a G.P. and he, as a person, was quite depressed, very laconic in the way that he would approach his patients, and his life, very depressive outlook, and just had a negative outlook towards being a G.P. and going into Medicine." 1206, first interview, line 85-88.

Whilst 1105's interview suggests that being able to gain early work experience prior to medical school may have resulted in a more positive perception of General Practice, 1206 highlights the pitfalls of an uninspiring work experience placement. Ahmed, as in his narrative, is able to reflect upon this experience, contextualising it following his future experiences, and choose to disregard it as not in keeping with these other experiences. Ahmed is a mature student, unlike 1105, who was 17 at the time of his work experience: It may be theorised that as a mature student, Ahmed has a broader life experience, and as such has developed his abilities to critique such experiences.

Whilst the above additional optional educational experiences all appear to have a grossly positive "pull" factor towards their particular careers, an element of selection bias is present during all of these experiences. Students are free to choose experiences in which they have an interest, therefore, a student choosing an SSC in General Practice is likely to have a number of pre-existing positive perceptions of this career, which are reinforced during this placement. These findings are therefore not transferrable to other student groups, as each student will choose additional optional educational experiences which fit within their own interests and driving force.

The above quotes highlight the value which early, positive experiences may have upon perception and career intention (Curtis et al., 2008), in providing a positive foundation perception of a career, which can be built upon during undergraduate training. However, it is also of note that a negative early experience may be particularly harmful upon perception of General Practice, particularly in those students who have little access to contextualising information.

6.3.3 "The push" GP promotion

During the analysis of individual students' narratives, one student identified that she felt "pushed" towards a career in General Practice within her institution.

> *"(Institution name) has quite a big push that they want more primary care doctors and more GP's and over the years I've noticed in the curriculum it's a lot more focused on holistic medicine trying to introduce more primary care into the curriculum."* Lucy, first interview, 131-134

It is of note that the concept of "the push" discussed below is not to be confused with *push and pull factors for a career in General Practice*, as discussed earlier in this work. "The push" refers to pressure from external forces, particularly from university, for undergraduates to choose a career in General Practice. Whilst the latter refers to internal forces, individual to each student, which pull them toward or push them away from particular careers.

Upon analysis of focus group and interview data it became clear that other students had experienced the "pushing" of General Practice within their institution.

> *"I think it's also the national shortage of primary care I feel they are trying to, not (institution) specifically, but medical schools as a whole are trying to increase the interest in GP."* 3206, focus group 6, line 119-200.

Like participant 2202, participant 1103 identifies and elaborates upon how curriculum may lead to a perception of an institution "pushing" the GP career:

> *"The curriculum as well, that students undergo that has a big influence on what specialty students end up taking. A few years ago, I saw a statistic I think in Warwick the highest proportion of students going for general practice because (institution name) is a four-year programme, it's quite intensive. I think the new medical school that's coming up has quite a big GP curriculum."* 1103, first focus group, line 139-143.

As a first-year medical student, who applied to university the year prior, 1103 clearly has a recollection of the curricula of different institutions. She here highlights a phenomenon discussed in the literature review of this work, whereby time in General Practice placement is associated with increased likelihood of choosing a career in General Practice (Alberti et al., 2017b). 1103 also highlights the increased focus that some institutions are placing upon "producing" General Practitioners. Whilst 1103 does not attend one of these institutions, she identifies the perception this awareness has led her to develop, of the wider Government influence in graduates becoming GPs.

Participant 3206 touches upon the reason for institutions promoting General Practice to their students, that is, the current GP recruitment crisis, and the government plans to increase the numbers of General Practitioners in the document "General Practice forward view" (NHS England, 2016). Other students have identified very specific aspects of this government document which have been relayed to them within their institution:

> *"When we first started medical school in first year, I remember them telling us a statistic at the start saying around half of you will become GP's when you graduate."* 3205, focus group 6, line 279-280.

This specific percentage is mirrored in quotes from other participants, at other institutions in this study. In all cases this "fifty percent" quote is experienced from a lecturer, usually in a lecture theatre environment and early in undergraduate studies, implying a widespread perception of the "truth" of this percentage by faculty members at multiple sites.

This figure, as discussed in the introduction to this work appears to have become widespread around institutions, indeed, I myself recall being told this percentage in my own final year at medical school. As such students may feel that there is a pressure for half of them to become General Practitioners, leading to a level of suspicion as to this being the root purpose of their undergraduate curriculum:

> *"I don't know if half of all doctors become GPs in general, but they were like half of you will probably become GP's. It's like 'is that because you guys are going to train us towards that or is that just general statistics?"* 3204, focus group 6, line 291-294.

Students do not demonstrate a simple acceptance of the above "pushing" of General Practice by their institutions. Indeed, some demonstrated a wish to "rebel" against this phenomenon:

> *"I think it would also be a personal choice as well. I wouldn't just rely on people being like "we need doctors in this area". I would probably first give it a go and then go from there. Not feel pressured into doing it just because there's a need for it."* 1103, focus group one, line 159-161.

Here we see the unintended consequence of this "push" toward General Practice, by universities, the government and the NHS. Students use their critical analysis skills to question why a "push" towards recruiting GPs is necessary. Theoretically, they may make links with the "truth" of any previously held negative perceptions, reinforcing these.

This rebellion against being "pushed" towards GP corresponds with students wish to pursue their own career path based on their own experiences and driving force, not be led toward one; particularly if that career is in crisis.

Therefore, we see that the "push" toward General Practice may have the opposite effect upon the student.

6.3.4 Feedback on performance

Feedback upon performance by a simulated patient, in a General Practice role play, was discussed in the narrative analysis of Lucy as a particularly valuable source of evidence that her intention to pursue a career in General Practice was valid:

> *"The facilitator was like 'how do you think that went?' and I was like 'oh I think it went okay' and then started talking and the actor interrupted him and was like 'it went more than okay' and just gave some really kind feedback. So, I think that was quite a nice thing and made me realise that communication is probably a strength of mine and I guess that is very helpful through all of medicine." Lucy*, diary entry 16, line 19-23.

Feedback from simulated patients has been shown in the literature to reinforce learning, and improve clinical skills (Park et al., 2011) and has been noted to reinforce career selection in other sectors (Krumboltz et al., 1976). In this quote from 2202 we see how feedback from this simulated patient provided external reinforcement, affirmation that she had the skills required for her preferred career in General Practice.

Feedback from a simulated, or indeed a real, patient, was in this case particularly valued. When considering the driving forces of the medical students in this study, many of which were related to patient care, one can understand that the satisfaction of a patient is a particularly positive experience for a student.

6.3.5 Hidden curriculum sessions

Whilst the concept of the hidden curriculum, that is the implied meanings and subliminal messages that students received during their undergraduate education (Gaufberg et al., 2010), is somewhat contentious: One of the universities in the study has included a session on this in their curriculum:

> *"We had a think about it (denigration) the other day didn't we in a hidden curriculum session. We talked about it and that. I think of lot came up in that. A lot of people had experiences where they had had other people say bad things about GPs to them."* 1205, focus group three, line 110-112

The concept of the hidden curriculum has been particularly linked with negative perceptions and denigration of General Practice (Health Education England, 2016; Reid and Alberti, 2018). Sarah's (1205) quote indicates that this topic was also covered in the hidden curriculum session.

Whilst this student does not explicitly state that this session changed her perception of General Practice, or resulted in dismissal of any previously encountered denigration; it does suggest that this session had impact and promoted thought on the concept of the hidden curriculum. This increased awareness of subconscious biases which may be imparted upon the students, may promote further reflection upon this topic.

Participant 1205 believes herself to be very likely to become a GP, she has a family member who is a GP, and she believes it to be her top career choice. 1205 may therefore react differently to this hidden curriculum session than her peers. Her perceptions of General Practice are already positive, as such, may already have a reflexive attitude toward any negative encounters experienced as part of the Hidden Curriculum. Students who have not had such previous experiences of General Practice may, theoretically, be encouraged toward this reflexive stance through a session such as this.

6.3.6 The media

Prior to the discussion of this subtheme, it is of note that this does not include any experiences participants had through social media. Whilst these experiences were not discussed frequently in the data, these social media experiences were within the context of dialogue with others, which were more appropriately grouped with Human influences.

Participants discussed the portrayal of General Practice in the fictional media as being impactful upon their perceptions:

> *"G.P.s are shown as a boring job whereas with Surgery all the exciting programmes, and you don't exactly see a high intensity programme like Casualty set In a G.P. studio."* 1105, first interview line, 58-59

We also see, in this quote from 2102, how the "exciting" programming surrounding hospital medicine may have an impact on perception of General Practice:

> *"I think the setting as well for your work. I think like maybe it's because of the media again but like you know there's guys who are walking through the corridors of the hospital and visiting the patients in the wards versus a GP who is more in a clinic, a community clinic setting. That one seems more in line with what people think doctors do, I think that might be a media thing again."* 2102, focus group five, line 248-251.

2102 reflects during this focus group, considering if this is a bias of the media, and if this leads to the wider perception of the public, of hospital medicine being more exciting. In the recording, her tone is thoughtful, with an implication that this line of questioning has encouraged her to consider this media bias.

These quotes demonstrate a reinforcement from the fictional media, that General Practice is the "less exciting" of these branches of medicine. Both of these quotes are from first year students, who have had minimal university experience of General Practice. The media, alongside family members and personal visits to the GP, makes up a large proportion of their experiences of General Practice to data. It can therefore be appreciated how this media bias may lead to the early development of perceptions of General Practice.

We also see students experiencing the non-fictional media surrounding General Practice, which it may be argued gives a more truthful representation of life as a General Practitioner. Participant 1107 discusses the following, after explaining that he enjoys watching the TV documentary "*GP's: Behind closed doors"*.

So, for me I'm quite like a suspicious person so all the information I get I always question and I know that TV they show the best bits or they show…it's for entertainment so they are going to show like the most interesting and best bits. I think it does portray how a GP does get to talk to people, that's something I would like to do as well like talking and communicating with people, I really like to talk with people. Yeah, there are some aspects of the GP work that I definitely think I could actually enjoy. I don't think I would go into general practice personally" 1107, first interview, line 47-51.

In this quote we see the process by which 1107 reflects upon the media, and its impact upon his perception and career intention. We firstly see a level of scepticism, a reflection that despite being a documentary, one needs to question exactly what is seen on television. We then see a reflection upon pull factors for General Practice demonstrated in this documentary, in 1107's case, communication, and finally a reflection upon if this would make him consider a career in General Practice.

We see that the media encourages reflection upon career decisions, as it forms a part of 1107's scope of reference, given his limited experiences. We do not see discussion of the media in any of the data from students in their fourth or fifth year of study. This is not to say that those students have never been influenced by the media, however by fifth year of study, these students have a much wider scope of reference. Having experienced the multitude of other influences identified in this work, the influence of the media becomes diminished.

This is not to say that the media has not been impactful on the early development of perceptions of General Practice, but that by their penultimate year of university, this impact is grossly diminished. This does lead to comparisons with other early career influences, such as family members, whom we see do have an impact upon perception and career intention which is maintained throughout the student's undergraduate career. The assumption may therefore be made, that the lasting influence of a family member, a trusted person, may be more fixed, and more difficult to challenge than the influence of the media.

6.4 Driving force

Prior to commencing this work, a process for the development of perceptions, leading to the rejection of General Practice as a career was theorised, based on the work of Bruner and

Postman (1949) and Johns and Saks (2005). For reference, this conceptualisation is reproduced in figure 23 below.

Figure 22: Process theorised as resulting in an individual rejecting the GP career path

The reverse of this conceptualisation was considered to be true for the development of positive perceptions of General Practice, and the decision to pursue it as a career.

During the course of this analysis, data was provided from multiple sources which challenged this provisional theory. Participants repeatedly discussed their own internal wants and desires for the future. These internal wants contextualised the participant's experiences in an ongoing process of reflection; whereby participants considered their experiences in light of their own internal wants and desires.

This was labelled "Driving force". Whilst similar to the term motivation, driving force embodies multiple factors which drive students towards a particular career; their internal beliefs about *who* they are, *what* they are good at, and *what* they want from their future career.

Whilst the purpose of this work is not to provide a model of career choice, driving force, as is seen below, may provide an indication of career choice, but also contextualises students' experiences. Ultimately having an impact upon perceptions.

The concept of driving force had been split into four sub themes, intrinsic appeal, ethos and values, practicalities and reflection, which are elaborated upon below.

6.4.1Intrinsic appeal

Some may consider this the most obvious of the four subthemes of Driving Force. Intrinsic appeal is simply the appeal of a particular career. This encompasses ideas that the participant will enjoy that career, that they have skills which mean they are suited to that career, or simply they "*fit"* in that world.

Participants particularly mentioned that they enjoyed the communication aspect, continuity of care or variety of GP. Some who considered themselves less likely to choose a career in General Practice felt that team work was important and they had felt more included in the wider team in hospital placements.

For example, on asking why she felt a career as a GP was appealing, 1202 stated:

> *"That is one of the positives of being a GP, people come back in, you see a different family member and you can build a big picture and get to the root of what's going on sometimes…potentially, that's one of the best bits about being a GP. You can see your patient and their family and you can get a bigger picture without having to delve in to their family history and their social history. You just get that whole thing."* 1202, focus group one, fourth year, line 120-125

Participant 1105 highlights how his wish for excitement led him to consider a career in neurosurgery:

> *"I just think it's a really, really exciting aspect. I know, for me, it's always been like that, I want to be a Brain Surgeon, so it's just really exciting probably because they're only knowing a patient for a short amount of time, you're going to be inflicting so much change on them over the space of a two-hour Surgery, you could change their lives completely. Whereas a G.P., even though you, kind of, change someone's life it's going to be over a longer period."* 1105, first interview, line 32-36.

1105's reflective process was subtly different to participant 1202. 1202 reflected upon multiple experiences from GP placement, having seen the day-to-day work of the GP, whereas 1105 based this perception of neurosurgery on an open day. The latter may have been a less accurate representation of the everyday work of a neurosurgeon.

Intrinsic appeal may also be linked to a belief that one holds the necessary skills to be successful in a chosen career, for example:

"My mom has a friend from home, he is like one of the only GPs in a small town and he can chat for hours, he knows everyone in the community and he is a very approachable person. It's not that I'm not friendly and approachable I just think I don't necessarily have the best personality to be a really good GP." Nicola, first interview, line 57-60.

Some of the intrinsic appeals may be considered to be controversial, such as in 2101's case; who seeks intellectual challenge within his future career:

"More like the cerebral work tends to be done in the secondary care, I think?" 2101, first interview, line 121-122

Whilst 2101 does not elaborate upon the source of this perception, there may be multiple influences, as highlighted in *external influences of perception*, which may have, over time, led to the belief that General Practice is less intellectually challenging. We also see from 2101's questionnaire data, that he considers himself unlikely to choose a career in GP, and that his preferred career is orthopaedics.

Whilst this is not conclusive evidence that the perception of GP being less intellectually challenging directly resulted in dismissing General Practice as a future career: We begin to see the continuous comparison; whereby perceptions, based upon experiences, are compared to the intrinsic appeal of a career reinforcing or discouraging its pursuit.

6.4.2 Ethos and values

Ethos and values represent the attitudes and aspirations of the students. Particularly the principals which they hold to be important, both as a doctor and in their wider lives. A student's ethos and values are tied into their own, deep-seated belief of what it is to be a doctor, and their principals of care toward the patients they serve.

One factor with which some students were uncomfortable was the idea of General Practice as a business:

"(GP is) a bit more like business. I think that's what puts me off as well because when I went on my placement I was speaking to the manager and I didn't really agree with everything she said about how it's a business, and people need to understand that they're not part of the NHS, and things like that and that really put me off because I didn't become a Doctor to go into a private practice, or anything like that, I came to work in the NHS to help people." 1105, first interview, Line 105-109

GP surgeries are indeed run as small businesses, since the beginnings of the NHS they have had an independent contractor status, being contracted to provide primary care by the NHS to the entire population of the UK (Kings Fund, The, 2011). As such, practice managers are employed to manage the day-to-day business, ensuring optimum income from providing commissioned services, and managing outgoings such as staff salary.

Here 1105 highlights a slight misconception, that this represents a form of private practice. Whilst GP surgeries are independent contractors, they are contracted to provide NHS work. This misconception may have fuelled some of 1105's belief that becoming a GP would be focussed upon running a business, rather than helping patients. Indeed, many GPs choose a salaried role, rather than a partnership, and are thereby not involved in the business management of a practice.

Nevertheless, we see here that participant 1105 finds the idea of being involved in the business side of General Practice uncomfortable, considering that his role as a future clinician is to "help people", and reflecting that therefore General Practice does not meet with his own values for the role of a clinician.

The nature of this experience with a practice manager may have impacted further upon this belief. 1105's tone implies a disagreement, and a somewhat firm practice manager. This is comparable with Sarah's experiences with practice management, when she states, during a discussion regarding the financial pressures of General Practice:

> *"With this SSC I'm allowed to go into the practice meetings, and things like that and able to talk to more of the staff within the team, and get a broader experience of life as G.P"* Sarah, first interview, line 81-82.

We see here how Sarah was offered insight into the business practice of the team by being invited into a practice meeting, removing some of the mystique of the business aspect of General Practice. By being able to discuss these topics with the team, she was able to allay some of her concerns regarding this business aspect.

Another value, discussed by Lucy in her diaries, was the ability to improve the health of patients, which was sometimes seen as difficult in General Practice:

> *"He (the patient) is sort of coming in with no real presenting complaints, just he feels that people aren't helping him. And we are putting him*

through to social services and additional support in that way and he doesn't really want any support. I think this is one of the more difficult aspects of GP where you will get patients that come in and you just don't really have anything to do with them, in a way, because they aren't really willingly necessarily to accept help." Lucy, diary entry 2, line 7-11.

Lucy reveals one of the challenging aspects of work as a GP, and one that I myself find difficult. Patients have direct access to their GP, and as such access these clinicians with many problems. Some of these problems may be due to a social situation, or a mental health condition that is not optimally treated. As such, the GP may be unable to offer the help the patient needs, or the patient may decline any offers of help, whilst still continuing to present to the General Practitioner with the original problem.

We see here that Lucy finds experiences with these patients understandably disappointing, they challenge her underlying value: That one should be able to help patients under their care. Being unable to improve the health/life of a patient is in direct contrast with Lucy's belief of what it is to be a doctor.

It may be noted that the majority of discussions surrounding ethos and values, were from longitudinal participants. This may be due to the relationship between researcher and participant in the longitudinal process, or in the case of Lucy, a perceived safety and privacy in an audio diary compared to a focus group.

6.4.3 Practicalities

Practicalities of future careers, whilst mundane, are of course important in career decision.

One consideration raised by participant Nicola particularly within this study was that of location:

"I would still say that I'm interested in neurology above pretty much everything else. In a way I would say I'm considering GP from a practical sense because I want to go back to (home country) and in terms of getting jobs back in (home country) it's much easier to get a training position as a GP than it is to become a specialist. So, I think from that perspective I want to go back to (home country) and I would be willing to change my career path in order to enable that, I think. But I guess in a best-case scenario I would still want to do neurology over general practice." Nicola, debrief interview, line 8-13

We see here that participant Nicola's wish is to have a career in Neurology, the career she is passionate about. However, she is more likely to be able to return to her family in her home country as a qualified GP, rather than a neurologist. In her diary entries and interviews, Nicola demonstrates an understanding of the requirements for return to her home country through extensive information gathering. She then reflects and balances the importance of being able to return to her home country, against her passion for a career in Neurology. We see that she considers location to be of higher importance than the career she is passionate about when considering her future. We also see that GP is considered an acceptable second choice. And through her diary entries, as seen in the narrative analysis, 2205 continues to reflect upon how she would enjoy a career as a GP, and this would be an acceptable alternative in order to enable her to live in her desired location.

The concept of family was frequently discussed when considering a career as a GP:

> *"I think I want to have a family so that would lead me towards GP at the moment."* 1101, focus group one, line 277-278

Participant 1101 is a first-year student, who currently has little experience of General Practice during placement. This leads one to consider why she perceives General Practice to be a suitable career for someone wishing to have children. The development of perceptions based upon hearsay is covered later in the "they say" section of this chapter.

Whether based upon one's own experiences, or the passed-on opinions of others, participants demonstrate reflection upon their own practical wishes for their future. Continually considering if their preferred career meets their wishes for their future lifestyle.

6.4.4 Reflection upon experiences

The final quadrant of Driving Force, represents an ongoing process. A link between experiences and internal factors, during which the participant continually reflects upon their experiences and perception, comparing these to their Driving force, and assessing if their perception of the two meet. This process is summarised in figure 24.

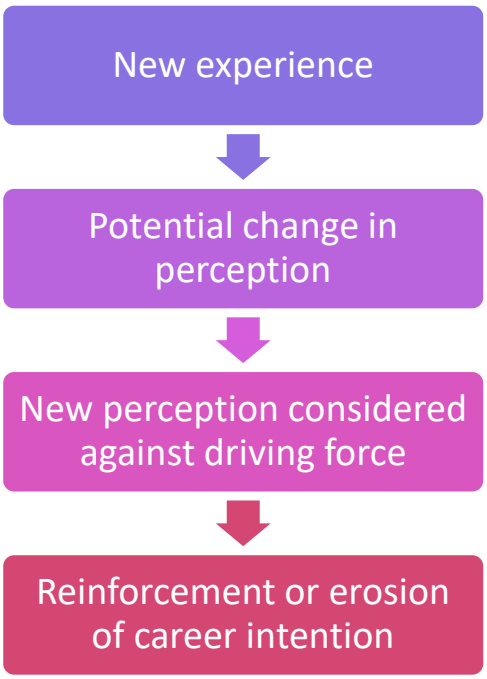


Figure 23: The process of reflection and comparison of driving force against experiences and perceptions.

This process of reflection and comparison has been demonstrated throughout the previous three concepts within the driving force theme. As previously seen in Lucy's narrative (5.2.3) participation in this study encouraged this reflective process

> *"I've got more information which I think has essentially meant that whereas maybe at the beginning I was on a steady baseline, now what's happened is I've got more information which essentially built up a pro's versus con's argument and overall, I'm probably in the same place but just with more information and sort of oscillating. It's more as if I'm more informed but still sort of scaling the pro's and the cons."* Lucy, debrief interview, line 14 -18.

Lucy encapsulates this ongoing process with her description of an "oscillation". Ongoing new experiences and reflection upon these causing micro adjustments to one's career intention, causing the student to be pushed and pulled from their current career trajectory. Many of these experiences will have only a transient effect, a questioning of one's career intention. This has been seen in many of the narratives within this work, whereby students have had "push" and "pull" experiences with regards to a career in General Practice, yet have considered themselves equally likely to choose a career in General Practice at both the beginning and end of the study.

6.5 "They say": A passive and pervasive perception

"They say" describes a phenomenon seen throughout this work. Whereby participants reported perceptions of General Practice, not based on their own experiences, but the shared perceptions of others. A key feature of this phenomenon is that the source of these perceptions is unidentifiable, i.e., "They say that GP is…"

Participants may discuss these perceptions with the precursive of "They say", or may present these perceptions as simply truth, however on questioning students are unable to identify the source of these perceptions. Students may ascribe these perceptions as being sourced from a conversation with another peer or senior, but similarly, be unable to ascertain the origin of the perception.

"They say" is defined here as a passive and pervasive perception. That is, a belief held within the undergraduate community and beyond, which is widespread, and accepted with minimal resistance by that society.

The "They say" phenomenon most commonly relates to negative perceptions of General Practice. For example:

> *"When you think of Hospital you think of a lot of interesting cases, you don't get admitted to Hospital over menial things. So, I think it's like, when you think of a hospital you think of cool, interesting, dangerous diseases and conditions, whereas when you think of a G.P. especially in winter time, it's just people coming in with the Flu, and Tonsillitis, and things like that"*
> *1105*, first interview, line 86-89.

1105's perception may have a subconscious origin in some of his own experiences. As a young, fit man he may himself only have presented to his GP with minor illnesses, which may have influenced his own perception of the work of the GP, when compared to seeing hospital doctors in the media. 1105 has had minimal placement experience of seeing GP's work first hand, and could not identify, on questioning, why he held this perception of General Practice.

Another perception of General Practice is the concept of breadth of knowledge needed to be a GP, versus depth of knowledge needed to work in a hospital speciality. This breadth of knowledge may be considered intellectually inferior to the depth of knowledge required to be a specialist:

"I think that's how people view GP's and I kind of agree that they have a very broad knowledge of lots of different thing. But the truly intellectually challenging like the really focusing and the specialised stuff will be in secondary practice where people have the time to focus on one or two major or smaller areas." 2101, first interview, line 156-159.

In this quote the language used is of particular note, participant 2101 refers to how "people" view General Practitioners, rather than selecting a particular person who is the source of this perception.

The concept of General Practitioners being inferior is mirrored in the below quote by Lucy:

"I think (institution name) is a really academic place and there is a lot of 'we want to be the best doctors' and I think (institution name) has a really excellent reputation for making great doctors and I think GP is almost considered a waste of your academia, I guess. I definitely get that impression." Lucy, focus group 4, line 117-119

In this case, Lucy does not agree with this perception, she herself wishes to be a GP. As it does not align with her own perception, she does not present it as truth, as has previously been seen. In this case "They say" is presented as the perception of the institution which 2202 attends. She describes this as an "impression" she has regarding the opinion of her institution as a whole. Whilst it is unlikely a member of the faculty has explicitly confirmed this impression with her, she may have gathered subtle clues from other sources. Such as have been discussed in the hidden curriculum sections of this work. The source of "They say" perceptions may therefore not always be completely unknown, but a combination of indefinite clues, collected over time from multiple sources.

"They say" perceptions may also represent an elaboration upon a solid, real-world issue, which does have an identifiable source:

"I think they want to make more GP's basically; I don't know if they are under employment as well of GP's. And I'm not sure if it's here or elsewhere where they were saying for people coming out of their foundation years, they are getting a bigger salary, like they are trying to attract them with higher salaries. Also, in terms of specialising like into consultant I've heard after your two years of becoming F1 and F2 it takes only three years to become a consultant or something. So, it's hard to say after 6 weeks but I know even prior to coming here I think (institution name) is like a big GP factory." 1107, first interview, line 190-196

We see in the above that participant 1107 describes the length of the GP training programme, and the need for additional GP's, all of which have been evidenced within this work (NHS England, 2016). However, in its re-telling, this has become a "They say" perception, being elaborated upon, resulting in 1107's perception of his institution as a "GP factory".

In this interview quote, 1107's quote is derogatory, as demonstrated by the sarcastic phrasing of "GP factory". 1107 has, at this point, been at his institution a little under two months, little time to develop these perceptions based upon lived experience.

"They say" perceptions may also be positive, for example:

> *"I think as well, I want to have a big family so for me GP is a massive pull because it's easy to be part time I think as a GP in a practice. I don't know whether this is actually substantiated but it just seems that way and it is mainly Monday to Friday."* 1202, focus group 2, line 142-145.

Participant 1202 here highlights a key point of the "They say" phenomenon, and indeed, shows some insight into this phenomenon herself. Identifying that her perception of General Practice as family friendly is unsubstantiated within her lived experiences.

Dave identifies how some of these perceptions travel around the undergraduate community:

> *"When everybody starts talking, your whole year group starts talking about it, it only takes one or two high profile people who Medical students look up to say (sic), they believe them and then word spreads like wildfire and like any gossip it goes up, and up, and up, and up and things like that travel really, really quickly." Dave*, first interview, line 104- 107

Dave highlights how a perception shared by a high-profile individual begins the process of becoming a "They say" perception. A cascade, in the sharing and resharing of such a perception, where it is elaborated upon, and becomes a widely held, pervasive societal belief.

As a result of this, perceptions of General Practice not based upon experience circulate throughout the undergraduate community, gaining traction. By the time these beliefs were shared during interviews and focus groups, they were fixed. Students in their first year of university appeared more vulnerable to this phenomenon. Students in their penultimate

year, such as 1202 and Dave, were more able to question these perceptions. And were even able to consider how they developed. These participants own lived experiences through four years at medical school may have led them to question, to a certain extent, the perception held within the undergraduate community.

6.6 Reflection upon Analysis of Narratives

When analysing this data as a researcher who has gone through medical education, many of the external influencers of perception were expected. I had experienced many of these during my own undergraduate training, or had theorised their influence during the development of this work.

Two concepts, driving force and "They say" were surprising as they emerged from the data. Although on reflection, my own experiences did mirror those of the participants in this study:

<u>Driving force</u>

Upon analysis of the data for themes, it became clear that the theme of driving force ran through the data of each participant. Each had their own, internal drives, which led to their own individual interpretation of life events.

In hindsight, this seems obvious. When considering my own career, I reflected upon events, for example, an interesting placement, and considered if this was a job I would enjoy doing and would find interesting.

In the narrative analysis, a complex reflexive process was identified, whereby students compared their experiences, perception and driving force. Whilst this was not demonstrated as clearly within the focus group and interview data, due to the point-in-time nature of these methods, one still gained glimpses of this reflective process.

Whilst this work aimed to understand how students' perceptions on General Practice developed in light of their experiences, and how this impacted their career intention, it was remiss not to consider internal drivers, which cannot be separated from one's interpretation of one's experiences.

<u>"They say"</u>

I found this phenomenon particularly interesting, as with driving force, once I began actively delving into the data to find sources of perception, I found many source-less perceptions which were part of this phenomenon.

Again, when considering my own undergraduate experiences, this seems obvious. I certainly recall, "ideas" about GP circulating throughout the undergraduate community. Ideas which were in conflict with my experiences on placement. I believe I myself may have subscribed to some of these ideas, such as GP being "easier" than hospital medicine, despite having experiences to the contrary on placement.

This phenomenon identifies the incredible power in these societal beliefs, and the level of experiential evidence required to contradict them.

6.7 Chapter Summary

External experiences which influence perception and a change in career intention can be split into two themes; human and non-human. Whilst these experiences are important in providing "information" regarding General Practice, which develops the student's perception, they do not in themselves influence career perception.

External influences are reflected upon within the context of the students driving force, the collection of ideals which are important to them for their future career. The student then compares their experiences with this driving force, considering, comparing, and assessing if their perception meets with their career ideals.

Finally, "they say" is a passive and pervasive phenomenon identified within this study. This phenomenon describes societal beliefs regarding General Practice within the undergraduate community, mostly negative, and without an identifiable source. These perceptions of General Practice are shared within the community in a cascade effect, resulting in an accepted, widely held perception, which is not based on the holders lived experience.

2. To identify the perception of General Practice as a career of medical students in their first and penultimate years at university.

3. To understand how experiences at university may have a causal effect upon the perceptions highlighted in RO2.

Participants have explained their perceptions of General Practice, and identified experiences which they feel have contributed to these perceptions. In particular, students have shared societal beliefs to which they have been exposed within their institutions.

4. To understand how experiences outside of the university environment may have a causal effect upon the perceptions highlighted in RO2.

The majority of experiences have occurred in university. However, participants have described some experiences outside of the university environment. These experiences have often been with other people, for example a family member, friend, or one's own GP.

5. To identify and understand any relationship between the development of a student's perception of General Practice and their intention to pursue or reject it as a career.

This Paradigmatic mode of analysis has further developed the concept of driving force, identifying how students reflect upon their experiences and perceptions, and consider how these meet with their ideals for their future career. Thus, we see that career decision making is a combination of external influences, and internal drives.

Chapter 7: Discussion

7.0 Chapter overview

This chapter concludes this this work, aiming to draw together the findings from previous chapters in relation to relevant theory and previous literature. Sinclair's theory, presented earlier in this work, and its limitations in explaining these findings, is discussed. Two additional theories, the fixing of perceptions and Negativity bias, are introduce to offer further insights into the findings in this work.

Finally, the key findings, strengths and limitations of the study, and implications of findings are discussed.

7.1 Sinclair's frontstage, backstage and offstage theory

Sinclair's (Goffman, 1990; Sinclair, 1997) frontstage backstage and offstage theory was extensively discussed in section 2.6 of the literature review. In summary, the theory explores three conceptual areas of medical education, frontstage, backstage and offstage. These areas are described in table 17.

Area	Description	Examples
Frontstage	Characterised by presence of an audience (those whom the student must "perform" for). The university world in which the student is observed.	Lectures, placement, university sporting events.
Backstage	The university world where the audience is not present, where the student may prepare for the frontstage.	Library, student bar.
Offstage	The lay world, outside of the university.	Home life, media.

Table 17: Summary of the three areas of medical education as descried by Sinclair (1997), adapted from original terminology from Goffman (1990)

During the literature review, some concepts were identified as being difficult to categorise in this way. For example, the denigration of General Practitioners, which was seen in the literature to span both the frontstage and backstage. During the process of literature review, this framework did offer a valuable lens through which the literature could be viewed, particularly in the consideration of audience in students' experiences.

The same process was applied to the results as found in this study; an attempted categorisation of the subthemes can be seen below:

Frontstage	Backstage	Offstage
External influences: non-human		
Placements		
< -Additional optional educational experiences- >		
< ---------- "The Push" GP promotion ---------- >		
Feedback on performance		
< ----------Hidden curriculum sessions ---------- >		
The media		
External influences: Human		
Inspirational/Aspirational Seniors Inspirational/Aspirational seniors		
		Family and family friends
Hospital doctors		
< ----------Other medical students---------- >		
Non-Medics		
< ----------They say---------- >		

Table 18: Location of the previously identified themes within the Frontstage, Backstage and Offstage framework.

As can be seen in the table 18, many of the concepts identified in this study span more than one of Sinclair's areas.

Some subthemes fit clearly within the areas identified with Sinclair, placements, the media and non-medical friends: All concepts which bear similarity to the examples offered by Sinclair in his work.

The majority of external influences identified within this work transcend Sinclair's framework. Inspiration and aspirational seniors may, for example, be experiences on placements, or in one's home life, particularly for students who come from medical families.

However, experiences may differ dependant on the space in which they occur. Consider as a theoretical example, denigration of General Practice. If occurring during a ward round, in an unfamiliar environment the student may feel intimidated, and unable to challenge such denigration. The student may accept this to be true given the seniority of the speaker, particularly if it is coherent with their own experiences. If similar denigration were to occur at home, or with friends, the student may be more able to discuss this, and the outcome on perception may be different.

<u>Exploring "They say" through the frontstage, backstage and offstage lens</u>

This framework becomes more complex when considering the "They say" phenomenon. By its nature this phenomenon is diffuse and may occur in all spaces, it may even be present in the aforementioned example of denigration. "They say" is more commonly found in the backstage and offstage, in situations where conversations are held between undergraduates. In these spaces shared perceptions are able to develop, and may encounter few challenges from external experiences of General Practice.

"They say" may also be, less commonly, seen in the frontstage. If we consider the pervasive nature of "They say", it may be theorised that this is also a historical phenomenon. Such perceptions may have taken many years to become part of the collective perception within the undergraduate community, indeed, this author recalls similarities with societal perceptions held during my own time at medical school. It may, therefore, be that qualified doctors share and discuss perceptions which they themselves experienced through the "They say" phenomenon during their own time at medical school. Given the official "frontstage" space, and the status of the speaker, these shared perceptions may reinforce those of the student.

Whilst "They say" is undoubtedly an interpersonal influence, arising from shared perceptions between undergraduates, these perceptions may be reinforced by system-based experiences within the frontstage. Placements and exams focussed on hospital specialities may, for example, reinforce a student's perceptions that these represent more academic careers.

Whilst "They say" does transcend the categories of frontstage, backstage and offstage, this lens does provide additional insights into the phenomena.

7.1.1 The concept of audience

A key feature of Sinclair's work is that of audience, the idea that the student "performs" for their seniors and peers, fulfilling the role of the doctor they wish to become. This theory implies a need to be respected and taken seriously by their audience, thus their actions are considered, checked and measured. The assumption of Sinclair's theory is that the student does not feel the need to perform in this way when offstage; those they meet in the lay world are not considered audience members.

This is in conflict with the ideas within this work. We see, for example, that students respect and admire medical parents, family friends, or their own GP. They aspire to emulate these respected persons from their offstage life; sometimes considering them more inspirational than seniors they meet on placement.

Can the above, therefore, not be considered an audience? The student may certainly consider their behaviour around those whom they find aspirational. Sinclair's theory locates audience only in the frontstage, which he identifies as being within the institution, and the presence of audience is a key differentiating factor between the three stages. Therefore, the concept of the student "performing" for those she meets offstage blurs the lines between Sinclair's three stages.

Sinclair's concept of audience does provide a lens through which the data can be viewed. For example, the student who does not wish to disclose that she intends to pursue a career in GP due to considering how she may be judged by her peers, demonstrates the impact that audience may have upon an experience.

Audience was of relevance even during the data collection stages of this work. As a GP my initial concern was that students may not wish to disclose negative perceptions, for fear of offending their audience. Whilst, in reality, students were happy to discuss negative perceptions with myself in all data collection, it may be noted that some of the deeper understanding within this work, particularly around driving force, stems from audio diaries and debrief interviews. This may be due to the transition of "stage" throughout the longitudinal process. A focus group fits within the frontstage, an encounter with a senior, in which the student may feel the need to regulate one's actions in front of this audience.

Throughout the six-month process of longitudinal diary collection, a researcher/participant relationship developed between myself and the students, more akin to a respected friendship than a senior/junior relationship. This changed my role as audience during the data collection, and also the space in which this data was being collected. This change of audience and space may explain the increasing depth to recordings, and the rich data which was able to be collected from the debrief interviews.

7.1.2 Driving force

Conspicuous in its absence from table 17 above is Driving Force and its four subthemes; Ethos and values, intrinsic appeal, practicalities and reflection. In the process of developing this work, I had not considered the roles these internalised processes may have in the development of perception and career intention. Throughout this work, it became clear that the external influences experienced by the participants were contextualised through the ongoing process of reflection and comparison to their own internal driving force.

In this area Sinclair's theory is lacking, the frontstage, backstage and offstage offers no scope for the consideration of internal factors in experiences. Of course, Sinclair proposes that this framework is integral to the development of the student into a doctor, not that it encompasses the entirety of that decision making process.

7.1.3Using Sinclair's theory as a lens

Sinclair's (Goffman, 1990; Sinclair, 1997) theory offered a valuable lens through which to view the data from this work. Through considering the space in which experiences can occur, and the audience to which the student may feel they need to perform, additional insights have been gained into the findings of this work.

However, this theory cannot be considered to entirely fit with the results found in this study. Many of the themes transcended Sinclair's frontstage, backstage and offstage framework, and Sinclair's theory certainly does not include internal factors, which were found to be key in this study. Hence, further relevant theory was reviewed, to provide further insight into these findings.

7.2 Development and fixing of perceptions

In the introduction to this work, Bruner and Postman's (1949) theory of the development of perception was introduced. It is summarised again below, using the terms described by Johns and Saks (2005):

When a Perceiver encounters a new target, they gather informational clues to increase knowledge of the target.

More information is gathered, over time familiar cues are gathered which enables categorisation, and reinforces the belief about the target.

Information gathering becomes more selective, cues which dispute the belief are disregarded or distorted, whereas cues which confirm the belief are actively sought out until the Perceiver develops a constant perception of the target.

7.2.1 The application of Bruner and Postman's (1949) development of perceptions work to General Practice

Bruner and Postman's (1949) development of perception theory, can thereby be applied t0 General Practice as an object, as in Figure 25 below:

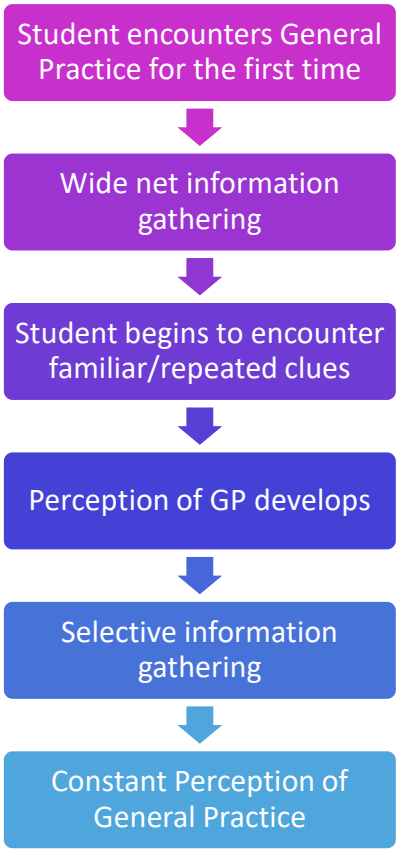


Figure 24: Development of perception applied to General Practice

We thereby see the start point of the perception building process, in which the student encounters a GP for the first time. This may be, as seen in the data, a family member, their own GP, or a GP may possibly be encountered for the first time in the university setting.

At this time, the perception of General Practice is in its infancy, until the student gathers further information. Once familiar clues are experienced, the student is able to begin to categorise General Practice, forming their own understanding and perception.

At a point, which will be different for each individual, information gathering, according to Bruner and Postman (1949) becomes more selective. The student may seek out experiences which reinforce their perception, and accept these into their knowledge bank surrounding GP. They may also reject experiences which do not fit with their perception of General Practice. Resulting in a constant perception of the role.

Dave, who was encountered in the Diary data of this work, summarises this process for himself:

> *"I think for me because my father is a GP, I think I have a good idea already of what that entails therefore medical school for me isn't going to sway my*

judgement as much because growing up I know exactly pretty much what the job is (sic).” 1207, debrief interview, line 13-15.

Thus, we see Bruner and Postman’s (1949) theory in its full cycle. Dave’s first experiences of General Practice were with his father, his wide net information gathering has already occurred. His own words suggest that he has also already passed the stage of selective information gathering, and now has a constant perception of General Practice.

7.2.2 The “fixing” of perceptions

The above implies that once a perception becomes constant, it is fixed, and cannot be changed. Indeed, some time before the perception is completely fixed, it may be difficult to deviate from the path of fixing; given that any new information which contradicts the student’s perception may be disregarded.

As we see in Dave’s quote, he feels that his perception prior to attending university was fixed, and could not consider any experience which would change his perception of General Practice, placing him at the end point of the perception developing process.

The implication of this process is that some students, who attend university in the early stages, have scope for perceptions to be moulded following positive experiences in their institution. Some students however, may attend university in the final stages of perception development, where change in perception is more difficult.

7.2.3 Truly fixed, or believed to be so?

Whilst the above concepts of fixing of perception is a useful concept as it challenges universities as to how much impact they may have on shaping perception; it is also over-simplistic.

The implication of the process theorised by Bruner and Postman (1949) is that there is a discrete end point to the perception forming process, in which the student’s perception of General Practice is fixed and unable to be changed.

How do we, or students, ever know that our perception is truly fixed? In Lee’s data for example (chapter 5.4) we see a process, whereby he begins university with a perception of General Practice which he holds to be true, which he then goes on to question in light of his experiences as an undergraduate.

Students, and we as professionals, may consider ourselves to be in the final stages of the development process, "believed fixed" in our perceptions. However, a later experience or set of experiences may challenge our perception sufficiently to return us to the information gathering stages. Something which is unaccounted for in Bruner and Postman's (1949) theory.

I suggest that students may be "believed fixed" rather than "fixed" in their perception of General Practice. In reality, these two states would be impossible to differentiate as even the student cannot anticipate the event which would challenge their perception sufficiently to lead them to information gather further. Equally, experiences which would challenge a perception would be individual to each student, the experiences which were sufficient to challenge Lee's perception, may not impact upon the perception of another participant in the study.

7.2.4 Application of the "fixing" process to career intention

Whilst the above theory focuses on the development of perceptions, it may also be considered in the context of choosing a career in General Practice.

The figure below depicts the previously discussed development of perceptions, alongside the career decision process:

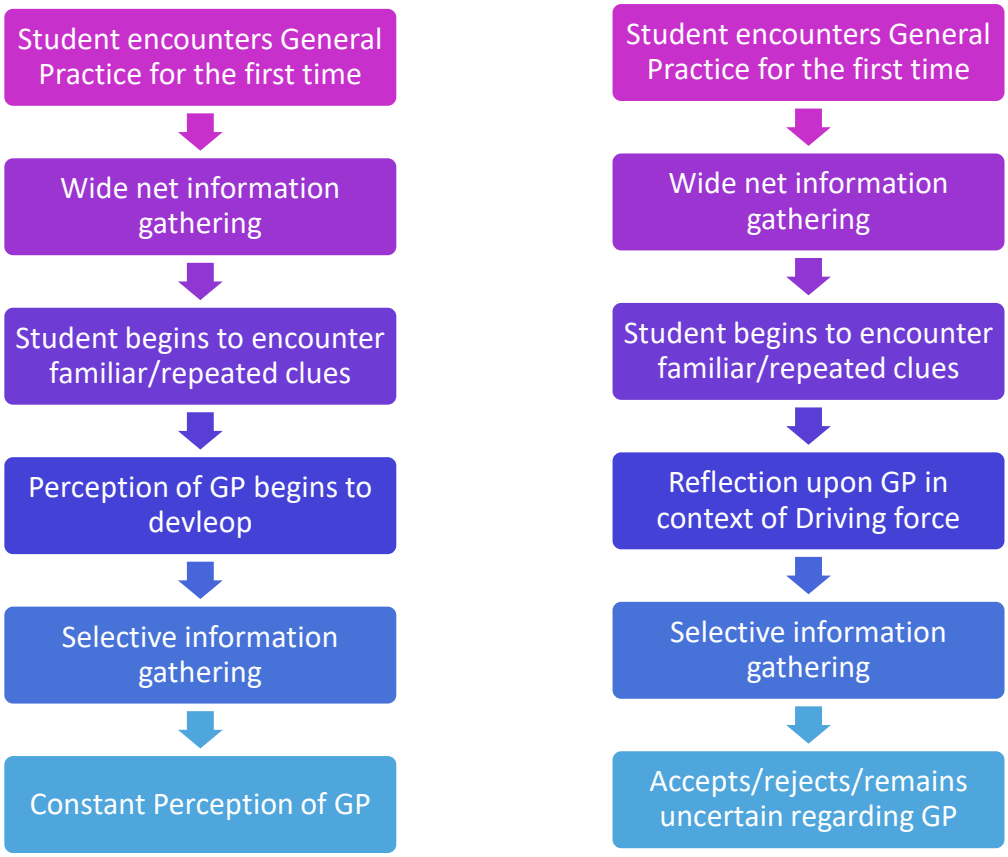


Figure 25: Left, the development of perception applied to General Practice, and right, adapted for career intention.

As can be seen above, the development of perception theory provides a lens through which GP career decisions may also be considered.

A similar early process may occur to that which is seen on the left, the student comes into contact with a GP for the first time, gathers information, and builds up a perception of General Practice. At this stage, as has been seen in this work, the student compares their perception of General Practice with their driving force considering how this may correspond to their future wants. In the process of selective information gathering, the student may seek out experiences in General Practice if they consider it as a career, reinforcing perception. For example, an SSC or elective. In contrast the student who perceives another career to correlate with his driving force, may avoid those experiences altogether.

The final result of the process is either acceptance or rejection of a career in General Practice, however the student may also be undecided about a career in Genera Practice, and may continue gathering information. Also of note is that this process may extend far beyond graduation.

As seen in the development of perceptions, any decision may be either “fixed” or “believed fixed”. Whilst a student may believe they are fixed in their intention to pursue this career, an extraordinary event may result in their return to information gathering, and their consideration of another career. Equally those students who believe themselves fixed in their intention to pursue another career, may reconsider this intention in light of positive experiences.

7.2.5 The future…

This theory creates a difficult practical question for future GP educationalists, is there a point by which no number of new experiences will change a student’s perception of GP? Whilst near impossible to differentiate between a student who is “fixed” or “believed fixed” in their perception of General Practice and intention to pursue it as a career: This theory offers suggestions that there may be students amongst those who appear fixed in a negative perception of General Practice, who may have the potential to change their perception, under the right circumstances.

Conversely, there may be students who appear to be fixed in their positive perception of General Practice, intending to pursue it as a career, who may reconsider this in light of a particularly negative experience.

Thus, whilst there is always opportunity to improve seemingly fixed perceptions of General Practice, there always remains chance of negatively affecting perceptions, and turning students away from GP as a career.

Further work into this bias, particularly with regards to perceptions of General Practice, may offer insights into optimum timing for interventions to foster positive perceptions of GP.

7.3 Negativity bias

In the data collection stages of this work, it struck me that participants may have a number of positive experiences of General Practice, however these experiences may be outweighed by a seemingly minor negative encounter. This phenomena had, to a lesser extent, been demonstrated in the literature, whereby significant time in General Practice placement was needed to change negative perceptions of the career (Mackie and Alberti, 2021).

The concept of Negativity Bias gained traction within the literature in the latter half of the 20th Century, with Nehemiah Jordan (1965) identifying an asymmetry between "liking and disliking", and considering this a phenomenon warranting further investigation.

In the proceeding five decades, two relevant concepts have been identified in the literature which are of particular relevance to this work:

Negative potency refers to the theory that negative experiences are "stronger" or more impactful than their positive counterparts (Kanouse, 1984; Rozin and Royzman, 2001). Thereby multiple positive experiences may be required to outweigh the impact of a single negative experience.

Negative contamination describes the contamination of a grossly positive experience by a single negative one. Baumeister et al (2001) summarise this with an anecdote of a plate of cockroaches. One cockroach on a plate of food can contaminate the entire plate. But a delicious morsel atop a plate of cockroaches does not have the effect of making the plate edible.

Baumeister et al (2001) suggest an evolutionary cause for these phenomena, whereby negative experiences were required to be of greater impact than positive ones. The result of failing to learn following a positive experience may result in missing a pleasurable activity. However, for primitive man, failing to learn from a negative experience, such as an encounter with a predator, may have fatal consequences. Neurologically, these fear inducing events have also been found to have lasting memory traces through changed neuronal connections (LeDoux et al., 1989; Quirk et al., 1995).

Brickman and Campbell (1971) theorise that the effects of the above are limited through *Headonic adaptation*. Whereby the effects and impact of good or bad experiences are reduced over time. For example, the lottery winner who reverts to their original level of happiness in the years following their win.

Negative experiences may however be impactful for longer than those which are positive. Sheldon et al (1996) in their diary study found that the impact of a "good" day ceased the following morning, however the effects of a prior "bad" day may continue to have an effect upon the participant the following day. In their study of lottery winners and accident victims, Brickman et al (1978) identified that after one year, lottery winners reported

themselves as no happier than their control counterparts. However, victims of accidents continued to be unhappier than controls for many years. Whilst this is a somewhat forced comparison, it does reinforce the concept of negative experiences having a prolonged hold over the subject.

It must be considered, that the above theories and research, whilst valuable, may represent publication bias. A larger proportion of the academic literature in the field of psychology is given over to negative experiences than good (Baumeister et al., 2001; Czapiński, 1985). (Brickman and Campbell, 1971).

7.3.1 Negativity Bias in perception of General Practice

Some of the concepts above have been seen in the data from this work, particularly in the longitudinal diary work.

Consider for example, Dave, the student who felt he understood General Practice, given that it was his father's profession (see section 5.4.3 *"conversations with peers and colleagues"*). Dave has multiple positive experiences of General Practice, including his experiences with his own father. However, a negative comment has a significant impact upon his perception, and is drawn into his own truth about the career. An example of the *negative potency* of this experience, and the *negative contamination* upon his previously held beliefs.

Whilst it would be simplistic to consider that this one negative experience overturned any positive perception of GP held by Dave, it does serve as an example of the impact of such experiences upon perception.

Whilst students within this study have identified positive and negative experiences of General Practice, negative potency and contamination may amplify the effects of the negative experiences, and ultimately, could be suggested to have an impact upon career intention.

7.3.2 Hedonic adaptation in perception of General practice

If we accept the theory presented above, which has been seen in the literature, in that negative experiences have more lasting effects than positive ones, we must consider the impact this may have upon students.

These theories imply that a small number of negative experiences may result in a globally negative view of General Practice as a profession. And that these experiences may hold with the students longer than their positive counterparts.

Students are asked to make relatively swift career decisions, choosing their F1 rotations in their final year of study, and choosing if they wish to begin a speciality training within a short time of beginning F2. Thus, whilst the effect of the students' positive experiences may be reduced by this time, it could be suggested that they may still be under the influence of their negative experiences whilst making these career decisions.

7.4 Three theories

Following the collection of data, in my wider reading. It became clear that there was no unifying theory which aided understanding of the results presented here.

Development of perceptions (Bruner and Postman, 1949), negativity bias and the frontstage, backstage and offstage theory (Goffman, 1990; Sinclair, 1997) were all utilised to gain understanding of the processed presented here.

No one theory adequately explored the process in which perceptions were developed, and the impact of this upon intention to become a GP. These three theories have however given insights into this process.

Bruner and Postman's (1949) theory of the development of perceptions has suggested a constructivist process, in which the student may incorporate new knowledge of General Practice into their schema. This theory suggests a biased process, in which the student prioritises information which reinforces their developing perception rather than challenges it. This can be seen in the data, whereby students seek out human and non-human influencers, such as an SSC in an area of interest, which is likely to provide further experiences which reinforce their underlying perception of that career.

This theory does however imply that perceptions are fixed, which conflicts with the results of this study, which have shown that some students have reflected upon experiences which have challenged their existing perception.

Sinclair's (Goffman, 1990; Sinclair, 1997) approach caused me to consider the spaces in which students have experiences which impact perceptions, and the impact of audience in these experiences.

These two theories correlate with Morgan's (2014) features of pragmatism, in that the experiences of every student can never be identically replicated. Experiences may occur in different spaces, with different audiences, and at different stages of the perception-development process. Thus, one student experience and therefore perception will never be the same as another.

Negativity bias (Baumeister, 2001) gave further insight into the impact of different experiences. Whilst data in this study was not "weighted" in terms of impact, diary entries did show variability in the impact of experiences. Negativity bias (Baumeister, 2001) provides a possible explanation for this variability.

Negativity bias was often seen alongside human factors, for example, after discussion about General Practice with a peer or senior colleague. Students may have had a non-human experience which challenged these perceptions, however their perception often remained aligned with the negative.

These three theories have, together, enabled me to gain deeper insights into this work. Although no theory alone offers a complete understanding of the themes identified in this research.

7.5 Research questions and key findings

In this section I return to the research presented at the beginning of this work, reviewing the data presented here, and its application to these questions.

Two research questions were developed at the start of this process, with the ultimate aim of conceptualising the factors influencing medical students' perceptions of General Practice, and how these perceptions may impact upon the decision to consider a career in General Practice.

The first research question surrounded the experiences had by students, and the impact of these experiences upon their career intention:

"What experiences, both at University and in their personal lives, develop Student's perceptions of General Practice as a career?" [RQ1]

This work has presented the narratives of six individuals, from different institutions and at different stages in their undergraduate careers. The development of their perceptions following their individual experiences within society, and their sense-making process

(Monrouxe, 2009) has been analysed. The work of Bruner and Postman (1949) has been valuable in understanding the process of the development of these perceptions, and the concept of *Negative Bias* (Baumeister et al., 2001) offered insight into the balance between the impact of positive and negative experiences.

The further *analysis of narratives* enabled themes to be drawn from these narratives. Themes from these narratives were drawn together and expended upon by data from the focus groups and interviews: Reinforcing reliability and generalisability through triangulation with other data sources (Leung, 2015). These themes and relationships are shown in the model presented in chapter 6. External human and non-human influencers of perception were identified, key to the development of perceptions, with the societal beliefs embodies by the "*they say"* phenomenon also having an impact.

The second of the research questions focussed upon how these perceptions impacted the career intentions if the student:

"How do causal factors, and perceptions of General Practice, impact upon the students decision to pursue or reject a career in General Practice "[RQ2]

The model presented in chapter 6 and the associated explanation demonstrates the relationship between the influencers of perceptions, and internal driving force of the student. This through this reflexive relationship, the student considers how their perception of General Practice corresponds to their future career wishes.

7.6 Comparison with the current literature

Whilst this work has identified new findings, it has also elaborated upon existing knowledge, which was identified during the literature review. These findings are discussed below:

<u>Lifestyle and flexibility</u>

The perception of General Practice as offering flexibility and work life balance has been widely discussed in the literature (Barber et al., 2018; Creed et al., 2010; Wright et al., 2004). Some studies have identified links with a female workforce and family (Barber et al., 2018; Creed et al., 2010; Drinkwater et al., 2008): Whilst broadly presented as positive, Reid and Alberti (2018) explored concerns of female students that they were being encouraged into General Practice because of their gender.

This work has explored this further, and identified a dissatisfaction amongst some female participants with this career assumption. Whist acknowledging that General Practice may provide more opportunity for family, this work suggests that railroading women into this role may have an adverse effect on perception.

Intellectual challenge

Findings in this work have mirrored the literature in the perception that General Practice is less intellectually challenging than other careers (Sahota et al., 2020). Although this perception was voiced by students early in their undergraduate studies, those who had progressed to their penultimate year of university demonstrated an increased appreciation of the challenges of General Practice.

Placement

Placements have been widely identified in the literature as having an impact upon perception, giving a wider view of General Practice (Firth and Wass, 2007) and increasing enthusiasm for the career (Edgcumbe et al., 2008). Contact with role models, who may be encountered on placement ("Destination GP," 2017; Ibrahim et al., 2014) has also been suggested as influencing career intention.

Additional optional placements have also been identified in the literature as being associated with an increased likelihood of choosing a career in that area (Manassis et al., 2006; Seow et al., 2018), as have pre university courses and work experience (Curtis et al., 2008).

This work has expanded upon this process, identifying placements and encounters which students find valuable, and the reflective system whereby these placements and encounters impact upon perception and career intention.

Personal experiences with a GP

Firth and Wass (2007) and Scott et al (2007) suggested encounters with one's own doctor as impactful upon perception of General Practice, this often being one of the first encounters any child has with a medical professional. This has been seen in this work, particularly with younger students drawing many of their perceptions of General Practice from their own visits to the GP; for some their own GP may become a role model.

As students' progress through their studies, these role models may be superseded by role models encountered on placement.

Political climate

The current political climate has been touched upon in the existing literature. Mariolis et al (2007) identified links between low numbers of General Practitioners and perceptions that this was an unattractive career. Nicholson et al (2006) identified the feeling of being pushed into General Practice, given recruitment difficulties.

In this work, this feeling of being "pushed" into General Practice has been further understood, it has been identified that some recruitment techniques may have the opposite effect Students have disclosed their wishes to choose their own career path, rather than be forced into a career for workforce needs.

Denigration

Denigration of General Practice has been suggested as a cause of negative perceptions in the existing literature (Ajaz et al., 2016; Alberti et al., 2017a; "Destination GP," 2017), and this phenomena formed some of the inspiration for this work.

This research has elaborated upon this as a more complex phenomenon. Whilst participants have undeniably encountered denigration, the credence they give this is often tied to their relationship to the speaker. Participants have also, in some cases, shown an ability to critique denigration, if the feel it is not representative of the truth.

7.7 Strengths and limitations of this work

The use of longitudinal audio diaries in this study enabled a unique understanding of individuals perceptions of General Practice and their decision to pursue it as a career. The use of audio diaries allowed an insight into the participants sense making process and a chronological record of experiences and changes in perception.

This methodology was not without its challenges. Possibly due to the intensive nature of the data collection, a number of participants dropped out before making any diary recordings. Those who engaged most fully with the process, were, unsurprisingly, those who had an interest in General Practice. Thus, data around those who had rejected a future career in General Practice was sparser.

Whilst participants were recruited from a variety of genders, races, ages and institutions', there were no participants aged over thirty, which would have provided additional valuable insight into the research questions. The institutions chosen for this study were selected due to variation in location and curriculum, however these were all English medical schools, and all established for over a century. Recruitment from newer universities, or sites in the other home nations may have provided further insight into the issues discussed in this work.

The number of participants in this work was small, 26 students were recruited altogether, and only six of these students were involved in the longitudinal diary process. The nature of Narrative analysis does require smaller numbers of participants, due to the purpose of understanding in depth stories and thought processes (L. Monrouxe, 2009, 2009). The small sample size enabled this in-depth analysis of the rich data and the resultant presentation of six narratives.

The impact of the coronavirus pandemic and my own maternity leave also had its impact upon this work. During my maternity leave, despite the use of a respected and competent deputy, data collection was understandably reduced. The effects of the early coronavirus pandemic meant that some data collection needed to be abandoned. However, data collection spanning this pandemic has enabled me to capture factors influencing perception both before and during this worldwide event.

When beginning this work I had, somewhat naïvely thought a linear relationship would be found linking experiences, perceptions, and intention to pursue General Practice as a career. A more complex, multifactorial relationship has been unearthed. Drawing upon students own personal driving force, and their reflection on their experience. Unknown factors, such as the "they say" phenomenon have been identified, which require further research to understand fully.

The "fixing" of perceptions and career intention has been touched upon in this work; something which I only considered fleetingly in the early stages of this research. This work has highlighted the constant fluidity of perceptions and career intention, even when a student feels that their career trajectory is decided, events may cause them to reconsider. However, the point at which a student, or even postgraduate, becomes "fixed" in their career intention has proved elusive. Further research would be required to understand this

phenomenon further, and may prove valuable in targeting positive experiences to particular groups for maximum effect.

Finally, this author is a relatively novice interviewer and researcher, this thesis being my first in depth narrative analysis. Input and review from my supervision team was sought through this process, to review the rigour of this work. This thesis also includes an ongoing narrative of my own reflexive journey through this research, providing context and insight into researcher positionality within the research (Holmes, 2020).

This work has offered insights into the links between experiences, perception, and intention to pursue General Practice as a career. As such, it has a relevance to current recruitment difficulties, and allowed me to offer suggestions which I feel will encourage undergraduates to consider General Practice as a career. However more research is needed, to fully understand some of the concepts unearthed in this work, and assess their implications for future practice.

7.8 Implications for future practice

As described in the introduction to this work, General Practice is currently in a state of crisis. The underlying drive in the production of this work, the driving force, if you will, was the identification of areas in medical education which were particularly detrimental to students' perceptions of General Practice. And thereby consider how changes could be made to encourage students toward a career as a GP.

This section discusses the findings, and possible implications of these in terms of medical education for the future.

7.8.1 Encountering an inspirational or aspirational senior

Inspirational and aspirational seniors were frequently discussed by participants: Encountering a senior who one wished to emulate was, for many, deeply involved in their decision to pursue a career in General Practice, or indeed any other speciality. Even if a participant did not choose to pursue a career in GP, an inspirational senior was a passive, positive influence in their perception of the profession. The converse, encountering a GP whom one felt was not particularly inspiring, resulted in either a negative perception, or the participant needing to actively engage in "excusing" the attitude of the practitioner. The

impact of a clinical "role model", that is, an aspirational senior whom one wishes to emulate has also been discussed in the literature (Jordan et al., 2003; Wilson et al., 2013).

An aspirational senior may be encountered prior to university, as was seen in the results of this work, for example a family member or one's own GP; as was also seen in Jordan et al.(2003). Whilst we as educators have little influence on what a student may encounter in their home life, we can offer opportunities to encounter an inspirational senior prior to beginning University. This may be through summer school activities, work experience opportunities, or simply the encouragement of students that we see as patients, in their journey down the path of medical education.

Whilst it would be an impossible task to provide students with solely inspirational seniors, those in positions of seniority should be aware of their impact upon learner's perception of General Practice. There are examples in the previous chapters of participants encountering seniors whom are stressed, dissatisfied in their work, or portray an inferiority to their hospital colleagues. This is not to say that a false portrayal of General Practice should be encouraged, but care must be taken that students are not exposed to a disproportionate amount of scepticism and dissatisfaction. This may require additional support and education for teaching GP's, to highlight their role as inspirational seniors, and the impact they may have on student perceptions.

7.8.2 Maximising positive placement experiences

Experiences on placement offered students the chance to experience the day-to-day work of the GP; an opportunity to visualise how they may fit into the GP workplace, and consider if this met with their own desires for their future work. Whilst the existing literature does explore the impact of placement upon perception of General Practice (Firth and Wass, 2007; Maiorova et al., 2008; Strasser, 2016); this work has expanded upon these findings, and particularly offered explanation to the process of *how* perceptions are changed through these experiences. Students in this study have reflected upon how positive experiences have reinforced their intention to pursue a career in General Practice, and equally, questioned their career intention following a negative one.

Whilst it would be simplistic to think that institutions can ensure complete positivity in student placements, efforts can be taken to maximise positive experiences. Ensuring, for

example, that students are expected, have timetabled learning opportunities and are able to experience multiple aspects of practice work.

Within the scale of this work, students have demonstrated variability in the quality of their experiences on placement, and have raised second-hand views of their peers who have shared particularly negative placement experiences. Training of placement supervisors, ongoing assessment of placement quality and swift action on negative feedback of students may contribute to standardisation of placement quality: Maximising student exposure to positive placement experiences.

Within a discussion of positive placement experiences, one cannot avoid denigration experienced by students. Calls have been made in the past to reduce denigration of General Practice (Baker et al., 2016), however students continue to experience this phenomenon. Whilst students in this study considered denigration to be variable in its impact on their career intention, it certainly contributes to the pervasive, negative perception of General Practice. These historical misconceptions between specialties will not be easy to resolve. Increasing exposure to General Practice within undergraduate and postgraduate training may increase understanding of the work of the GP within the medical community, counteracting some of the negative perceptions which as expressed as derogatory comments. Training around denigration of any speciality within clinical supervisor training may also increase awareness of the harm denigration can cause, and may reduce its occurrence.

As with the above section regarding inspirational seniors, honesty remains paramount. In suggesting that positive placement experiences are maximised, it is not suggested that students should be presented with a false experience of General Practice: They should be able to experience the challenges of this role, in balance with quality educational experiences.

7.8.3 Avoiding "Pushing" General Practice

Students in this study have highlighted negative aspects of the current recruitment "push" into General Practice; feeling that this must reflect the undesirability of the work and ongoing recruitment issues. Many students have mentioned an incorrect quote, that 50% of medical students will become GP's (Deakin, 2013; Department of Health, 2013) as impacting

negatively upon their perception of the career, and the wish to be able to make their own choices about their future work.

Stereotypes associated with the family life and the female workforce remain present around General practice. Female students have found advice surrounding GP being "family friendly" to be particularly inflammatory, particularly if this is unsolicited. Stereotypes such as this not only reinforce the perception amongst students that GP is of lower prestige than other specialities; they also imply to female undergraduates that other careers are not suitable for women if they also wish to have children.

Whilst strategies to improve recruitment into General Practice are currently necessary, reflection is needed around the impression such strategies impart upon undergraduate students. Current strategies, alongside the "family friendly" stereotype of GP have resulted in students correlating desperate recruitment strategies, with an undesirable career choice.

Alongside aforementioned training around denigration, clinical supervisors should be made aware of the impact of unsolicited career advice given to students. Particularly around promoting any career as "easy", or unsolicited advice surrounding gender and family plans.

7.8.4 Reducing the impact of the "They say" phenomenon

This work has highlighted pervasive perceptions surrounding General Practice, based on rumour within the medical student community, rather than experience. This is possibly one of the most difficult issues raised within this work to combat, due to its insidious nature.

Providing students with experiences which contradict this "They say" phenomenon may enable them to challenge these perceptions. However; for some, these perceptions are deep-seated, and even in light of contradictory experiences may be difficult to challenge.

It has been suggested in other work, that the denigration of General Practice is impactful upon students perceptions, and calls have been made to reduce the occurrence of this denigration (Alberti et al., 2017a; Health Education England, 2016; Wass and Gregory, 2017). The existing literature has been less explorative of the direct source of such perceptions and the effect of denigration being passed around the student community.

Therefore, further work is needed, focussing on the source of the "They say" phenomenon. Identifying the root of such perceptions, that is the "they" of "they say", could assist in understanding the source of these perceptions. Increased knowledge of this phenomenon

may enable strategies to be developed to reduce its spread, and the negative bias associated with these perceptions.

7.8.5 Early decisions on preferred career

As discussed earlier in this chapter, students' perception of General Practice may become fixed prior to, during, or after their undergraduate training. As part of this perception fixing, students may decide that General Practice is or is not a career they wish to pursue. In practical terms, this implies that for some students, attempting to change perception of General Practice or career intention is futile.

The implication of this perception fixing, is that over time, fewer students holding a negative perception of General Practice will be receptive to positive experiences. To combat this, and have the greatest chance of fostering positive perceptions of General Practice amongst the widest population, the suggestions mentioned previously in this section must be implemented early.

This has implications for the entire medical community: As has been shown in this work, students' perceptions may have become fixed prior even to attending medical school, therefore maximisation of positive experiences should equally begin prior to this. Positive experiences with one's own GP, opportunity to attend work experience events, or a GP presence in teaching in secondary schools may all impact upon a positive perception of the speciality.

It would be prudent to consider admission strategies in this context: There is evidence that students from a state school background are more likely to choose a career in General Practice than their counterparts from more privileged backgrounds (Lowe, 2019; Rimmer, 2015b). It may be postulated that students from a more deprived background have more positive experiences with their General Practitioner, and/or are not exposed to negative experiences, such as denigration, prior to attending university. In this case, admission strategies encouraging students from more diverse backgrounds may be more fruitful in fostering positive perceptions of General Practice.

At a university level, experiences with inspirational or aspirational seniors, and positive experiences of GP early in an undergraduates teaching, may offer increased chances to

positivise perceptions, whilst a larger proportion of students are as yet unfixed on their perception and career intention.

This work has highlighted suggestions around being truly fixed in one's perception, or being believed to be fixed in this, and the difficulty in categorising students into one of these two groups. Therefore, whilst early experiences may be considered more impactful, it can never be considered too late to provide positive experiences to students.

7.9 Summary

This final chapter has introduced reviewed the frontstage, backstage and offstage theory of Goffman and Sinclair (Goffman, 1990; Sinclair, 1997) and Bruner and Postman's (1949) theory on the development of perception, and introduced the concept of Negativity bias. These three theories have been explored in the context of the data presented in previous chapters, and have offered insights into the processes underlying the development of perceptions and career intention. Whilst Sinclair's (1997) frontstage, backstage and offstage theory did not fully explain the data from this work, it did offer additional perceptions into the medical student as an actor.

Finally, this chapter summarised the research questions and key findings, the strengths and limitations of this work, and discussed the implications of this research for future practice in medical education.

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Glossary

Dermatology

A hospital speciality, focussing on the diagnosis and treatment of disorders of the skin.

District General Hospital (DGH)

A smaller hospital, compared to larger regional centres which are often in the centre of cities. DGH's usually offer less specialist care, focussing on management of more general cases.

Elective

A clinical placement, usually six weeks or longer, for which students arrange their own clinical placement and PDP. Traditionally these electives have been used as an opportunity to travel abroad and experience Healthcare in another country. However, electives within the UK are increasingly common.

F1

First Year of compulsory postgraduate training for doctors. During this time doctors are closely supervised and rotate through a number of specialities.

F2

Second year of postgraduate compulsory training for doctors. During this year doctors decide on how they would like to progress their career by applying for speciality training.

Full time equivalent

Phrase used in NHS staffing. Given that some doctors work less than full time, this is used to equate the number of full-time doctors represented by the current combination of staff and hours.

Foundation Doctor

A doctor in their first two (or sometimes three) years following graduation. Term usually applies to F1 and F2 doctors.

General Practice (GP)

The career of the General Practitioner. Encompasses a number of concepts which are part of the day-to-day work of the General Practitioner, for example treatment of patients, support of staff, management of the medical practice as a business and work with local commissioning groups.

General Practitioner (GP)

A doctor specialising in General Practice, sometimes also known as a family Doctor or family Physician. These doctors are the first point of contact for patients within the National Health Service. They provide ongoing care for chronic illnesses, repeat prescriptions, and management and diagnosis of new conditions. The initials "GP" are commonly used to represent either General Practice, or a General Practitioner, dependant upon context.

GP's: Behind closed doors

A fly on the wall documentary, shown in the UK. The film crew follow GPs in a practice as they see patients and go about their day-to-day work.

GP Partner

A qualified General Practitioner, who has chosen to work as a partner within a practice. Usually after "buying in" to the practice financially. As such partners as opposed to Salaried General Practitioners have greater input into running of the Practice Business, their earnings are directly related to the income of the Practice, and they are the employers of practice staff (and have responsibilities as such).

General Practice Speciality Trainee (GPST)

Also known as GP Registrars. A trainee General Practitioner. These doctors have completed their undergraduate training and two foundation years of paid training, usually in Hospital. They have begun the career path towards becoming a qualified GP by enrolling on the GP training programme. The programme takes three years of full-time training and involves rotating between work placements in GP surgeries, and Hospital Work. GPST's are closely supervised during this time. Please note that the term "GPST" has been officially replaced with "PGDIT", post-graduate doctor in training. However, the terms GPST and Registrar have remained in this work to reflect the parlance of the participants.

General Practitioner with special interest (GPwSI)

A qualified General Practitioner, who has done additional qualifications, usually a diploma, in an area of special interest. A GPwSI may run additional specialist services within their practice, or may be subcontracted to work in hospital clinics in their area of interest.

GP Registrar

See GPST. These terms are commonly used interchangeably to refer to a doctor who is enrolled in the GP training programme.

Integrated training post (ITP)

A post which can be applied for by a GPST. The post involves spending 50% of working time in a traditional GPST role, and 50% of time working in Newcastle University. The academic part of the role involves teaching and research. This role extends the length of time spent as a GPST due to a reduction in clinical time.

Junior Doctor

Any doctor having finished their degree in medicine, before becoming a consultant or qualified General Practitioner. This terminology has been officially replaced with "PDGIT" (see GPST); however, the term Junior Doctor remains in the common vocabulary.

Manchester (The University of)

University in the North West of England, offering a degree in medicine over 5 years.

Medical Student

A student undertaking an undergraduate degree in Medicine. These students will have been required to achieve A Levels or the equivalent. The medical degree course is usually five years or six years and involves practical placements in Hospital and General Practice as well as theoretical lectures.

Newcastle University

University in the North East of England, offering a degree in medicine over 5 years.

Northern Deanery

For the purposes of training, Foundation doctors apply and are assigned to a geographical area. Northern Deanery being one of these. The area covers Northumberland, Tyneside, Redcar and Cleveland, Teesside and parts of Cumbria. Doctors are assigned to rotations around a hospital (or Hospitals) in this area for their Foundation years, and employment and training within this area is managed centrally by the Northern Lead Employer Trust.

Paediatrics

Hospital medical speciality focussing on the care of children.

Paediatrician

A junior doctor or consultant in the speciality of paediatrics.

Placement

A general term for part of an undergraduate course where students spend time in a clinical environment, observing and working with qualified doctors to further their learning.

Psychiatry

A speciality of medicine which deals with the diagnosis and treatment of mental illness. Psychiatrists have undertaken their undergraduate training, and foundation years one and two, before applying to a 6-year psychiatry training programme.

Rural Medicine

A speciality of medicine commonly seen in remote areas of Australia, New Zealand and North America. Medics in this role often have a General Practice like background, but also manage small rural hospitals and perform emergency care.

Salaried General Practitioner

A qualified GP who has chosen to take a salaried post within a practice. As opposed to a partnership, the salaried doctor is paid a monthly wage, unrelated to the profits of the practice, and as an employee has all the rights associated with this. Some General Practitioners may choose to take a salaried role in a practice for a short time, to allow both parties to consider if they would like to commit to a partnership.

Simulated patient

An actor, used in medical training to practice communication skills. The simulated patient is provided with background information of a "patient", and role plays this character with the medical student or doctor. Some actors have a great deal of experience in portraying simulated patients, and are trained to provide feedback on the skills of the medical student involved in the role play.

Student Selected Component (SSC)

A shorter placement, selected by the student to meet their own learning needs. These SSC's may be selected and applied for through a catalogue of placements arranged by the University, or arranged privately between a student and a clinical speciality in which they have an interest (pending university approval).

University College London (UCL)

University in central London offering a degree course in medicine over 6 years. Students undertake their placements in London and the surrounding areas. The additional year of study provides students with an integrated BSc (in their third year).

Appendices

Appendix 1: Papers identified in literature searches

Table 18 below breaks down the papers identified in each search of the literature.

		Ovid	Scopus	Total
General Practice AND student AND:	Perceptions	234	2272	2506
	Identity	188	467	655
	Career choice	45	1172	1217
	Denigration	0	3	3
GP total:		**467**	**3914**	**4381**
Psychiatry AND student AND:	Perceptions	1869	385	2254
	Identity	1960	100	2060
	Career choice	141	422	563
	Denigration	46	0	46
Psychiatry total:		**4016**	**907**	**4923**

Table 19: Papers identified in subgroups of each search of literature2.2.3 Current Research RQ2

Appendix 2: PRISMA matrix of identified and excluded papers

		Identification			Screening				Eligability				Included	
		Records identified	After duplicates removed	Records Excluded based on duplicates	Records arfter screening	Records exluded during screening			Eligible papers	Full Text articles excluded due to eligability			Papers included	Total exluded
						Abstract	*Full text unavailable*	*Title*		*Location*	*Unrelated to subject*	*Other exclusion*		
Secondary Search	**General practice AND Student AND:**													
Ovid	Perceptions	234	68	-166	56	-6	-2	-4	39	-16	-1	0	39	-195
	Identity	188	34	-154	22	-5	-6	-1	2	-16	-4	0	2	-186
	Career Choice	45	21	-24	14	-4	-3	0	4	-10	0	0	4	-41
	Denigration	0	0	0	0	0	0	0	0	0	0	0	0	0
Scopus	Perceptions	2272	1266	-1006	15	-86	-53	-1112	3	-3	-9	0	3	-2269
	Identity	467	236	-231	56	-12	-21	-147	0	-36	-20	0	0	-467
	Career Choice	1172	307	-865	53	-93	-32	-129	1	-28	-24	0	1	-1171
	Denigration	3	0	-3	0	0	0	0	0	0	0	0	0	-3
	TOTAL:	**4381**	**1932**	**-2449**	**216**	**-206**	**-117**	**-1393**	**49**	**-109**	**-58**	**0**	**49**	**-4332**
Tertiary Search	**Psychiatry AND student AND:**													
Ovid	Perceptions	1869	801	-1068	80	-96	-56	-569	2	NA	-78	0	2	-1867
	Identity	1960	995	-965	18	-102	-173	-702	0	NA	-18	0	0	-1960
	Career Choice	141	84	-57	7	-24	-8	-45	5	NA	-2	0	5	-136
	Denigration	46	23	-23	3	-6	-12	-2	1	NA	-2	0	1	-45
Scopus	Perceptions	385	220	-165	8	-5	-9	-198	7	NA	-1	0	7	-378
	Identity	100	42	-58	1	-6	-15	-20	0	NA	-1	0	0	-100
	Career Choice	422	225	-197	5	-22	-14	-184	1	NA	-4	0	1	-421
	Denigration	0	0	0	0	0	0	0	0	NA	0	0	0	0
	TOTAL:	**4923**	**2390**	**-2533**	**122**	**-261**	**-287**	**-1720**	**16**	**NA**	**-106**	**0**	**16**	**-4907**

Appendix 3: Focus group consent form

Medical Students perceptions of General Practice focus group consent form

I, the undersigned, confirm that (please tick box as appropriate):

1.	I have read and understood the information about the project, as provided in the Information Sheet.	☐
2.	I have been given the opportunity to ask questions about the project and my participation. I understand that if I have any questions after the focus group I can contact either the primary researcher or the site lead (details in the information sheet).	☐
3.	I voluntarily agree to participate in the project.	☐
4.	I understand I can withdraw at any time without giving reasons and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn. I understand that I can decline to answer any questions in the focus group if I wish.	☐
5.	The procedures regarding confidentiality have been clearly explained to me. I understand that my name and contact email address in the questionnaire will be held separately to the transcripted data. I understand and accept the reasons in which confidentiality may need to be broken as outlined in the information sheet.	☐
6.	The use of the data in research, publications, sharing and archiving has been explained to me and I consent to this data being used for further research projects.	☐
7.	I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of the data and if they agree to the terms I have specified in this form.	☐
8.	I understand that at the end of the focus group, I will be asked if I would like to participate in the next stage of this study. I understand that I am under no obligation to agree to the next stage of the study, and that separate consent would be gained for this.	☐
9.	I, along with the Researcher, agree to sign and date this informed consent form.	☐

Participant:

_____	_____	_____
Name of Participant	Signature	Date

Researcher:

_____	_____	_____
Name of Researcher	Signature	Date

This study was approved by the Faculty of Medical Sciences Research Ethics Committee, part of Newcastle University's Research Ethics Committee. This committee contains members who are internal to the Faculty, as well as one external member. This study was reviewed by members of the committee, who must provide impartial advice and avoid significant conflicts of interests.

Appendix 4: Focus group information sheet

School of Medicine
Framlington Place
Newcastle Upon Tyne
NE2 4HH

Students Perceptions of General Practice
Participant information sheet

Who are the researchers and what is the research about?
Thankyou for your interest in this study on perspectives of medical students on a career in General Practice. The aim of our research is to find out students perspectives on a career in General Practice and how experiences in medical school and comments made by others may influence these perspectives. We aim to use this research to help understand why there are currently low numbers of Junior doctors entering GP training across the UK.

This research is being carried out at a number of medical schools throughout the United Kingdom. My name is Kim Banner and I am a GP Registrar working with Newcastle University, my role in the group is to coordinate and liaise with participants. Any queries regarding the study can be directed to myself at kimberely.banner@nhs.net.

Each medical school has their own site lead, the lead for
..... (site name) is
..... (site lead).

What kind of research is being done?
Our preliminary research is to have a set of focus groups at each site. At each of these groups there will be medical students from various stages in their undergraduate training as well as a facilitator to ask questions of the participants.

Following the focus groups there will be a longitudinal study over a year, looking at how perceptions change in response to experiences at medical school. This research is not being started until next year however if you may be interested in being involved with this research please email me on the above address or speak to your site lead.

What will happen at the focus group?
You will be asked to fill in a questionnaire with some basic information including your University and your stage in training. The questionnaire will ask some simple questions regarding your thoughts on your future career choice.

The facilitator will discuss some ground rules before the focus group commences, we would request that participants do not share what is discussed in the focus group with others, in order to ensure focus group participants feel they can be open and honest about their experiences.

The facilitator will ask questions about your perspective of a career in general practice and any experiences you may have had or comments from others which may have shaped these perceptions. The facilitator will encourage discussion within the group about these perceptions. We ask members of the group to respectfully discuss different opinions in a constructive way, the facilitator will encourage this and also ensure that participants are comfortable with the discussion. The focus group will be recorded on an audio recording device.

You do not have to answer any of the questions asked at the focus group and you are free to withdraw at any time (see below). If you feel uncomfortable at any time please let the facilitator know.

Who can participate?
Medical students at any of the involved sites.

What will happen with the recordings?
The recordings will be transcribed (typed up) and made anonymous so individual participants are not identifiable. Your first name you use to introduce yourself in the focus group will be sent to the transcription service (Ndata), and will be used to identify your contributions to the focus group. Once the transcriptions are typed up, your name will be replaced with an identification number.

What will happen with the data?
The data will then be joined with data from other medical schools throughout the country and analysed for repeating themes. This will be used to develop the second part of this study (the longitudinal study previously mentioned).

Your comments will be kept confidential. Your personal details will be held separately to the written up comments which are made in the focus groups, however comments made in the focus groups will be able to be linked to the data that you supplied in the questionnaire, for example the University which you attend. The principal researcher will assign your name and contact details an identification number, and your comments will be identifiable through this. Only the principal researcher will be able to link your name to your identification number. Your data will be confidential but subject to the usual limitations if there should be concerns for your welfare or that of others.

Your contact details will not be shared with any third parties.

Once the data collection and analysis is complete your name and contact information will be deleted, to unlink you form any comments made. The written up discussion (no longer linked to you by name) will be deleted/destroyed five years after the completion of the MD Research project (a research qualification undertaken by a medical doctor).

The data will be written up as a report, this will be submitted to be published in a medical journal, and will also be written up as part of my (Kim Banner's) research project

What are the benefits of taking part?
You will be part of a UK wide study to try and understand why there is a shortage of Doctors wanting to become GP's.

Are there any risks involved?
There are very few risks in this kind of research, it may be that you find some of the topics discussed distressing or sensitive. If this is the case you have the right to withdraw from the group at any time.

Can I withdraw from the study?
At the start of the focus group we will ask you to sign a consent form to indicate that you understand this information sheet and are happy to be involved. You may withdraw your consent at any time during the focus group by informing the facilitator, at this point you will be free to leave and your comments will not be used.

If after the focus group you decide you would like to withdraw from the study, please contact myself on the email above. Please note that there may be a point at which we are unable to remove your comments from the study, for example once all the data has been published.

Can I continue to be involved in the study?
At the end of the focus group your facilitator will ask you if you would like to be involved in the next stage of the study. The next stage will involve making some audio diary recordings over the course of a year of comments or experiences about GP as a career and how this may affect your perception or opinion of GP as a career.

You are under no obligation to be involved in the next stage of the study, however if you would be interested please give your details to your facilitator.

If you have any further questions about this study please contact the research team on the details below:

Kim Banner, Corresponding Researcher Site lead: (details below)

School of Medicine
Framlington Place
Newcastle Upon Tyne
NE2 4HH

This study was approved by the Faculty of Medical Sciences Research Ethics Committee, part of Newcastle University's Research Ethics Committee. This committee contains members who are internal to the Faculty, as well as one external member. This study was reviewed by members of the committee, who must provide impartial advice and avoid significant conflicts of interests.

Appendix 5: Questionnaire

Perceptions of General Practice Study

Information about you:

This information will be made anonymous. Your name on this form and on the recording of the focus groups will be replaced with an identification number during analysis, so that your comments can be linked to your answers, but not to you personally. Your name will be held separately to your answers and comments. Contact details will only be used for the research team to contact you if you express interest in the next stage of this study.

Participant name:

Participant email address:

University:

Stage of Degree: First year/fourth or fifth year

How old are you? Under 25
26 to 35
Over 35

Gender: Male
Female
Prefer not to disclose

How would you describe your ethnic group (please choose one option)?

White

1. English / Welsh / Scottish / Northern Irish / British
2. Irish
3. Gypsy or Irish Traveller
4. Any other White background, please describe:

Mixed / Multiple ethnic groups

5. White and Black Caribbean
6. White and Black African
7. White and Asian
8. Any other Mixed / Multiple ethnic background, please describe:

Asian / Asian British

9. Indian
10. Pakistani
11. Bangladeshi
12. Chinese
13. Any other Asian background, please describe

Black / African / Caribbean / Black British

14. African
15. Caribbean
16. Any other Black / African / Caribbean background, please describe:

Other ethnic group

17. Arab
18. Any other ethnic group, please describe:

Information about your current career plans:

Which careers are you considering when you leave medical school and finish your foundation training? Please choose up to three and list with 1. Being the career you are considering most.

1.....

2.....

3.....

On a scale of 1 to 10, how likely are you to consider a career in General Practice when you finish university and foundation training? (10 being definitely /current preferred career, 1 being no intention to pursue a career in General Practice):

1 2 3 4 5 6 7 8 9 10

Further research:

Would you consider taking part in a longitudinal study with regards to changing perceptions of a career in general practice? This would take place over the course of one year and require you to make some short audio diaries reflecting on your experiences in Medical School?

The facilitator of your focus group will discuss this in more detail later.

YES/NO

Thank you

Office use only:

ID number:

Appendix 6: Focus group protocol

Medical students perceptions of General Practice

Focus group protocol advice sheet (first focus group):

Recruitment

Two focus groups to be run at each site. One with 8-12 students in their first year, one with 8-12 students in their fourth or final year (dependant on site).

Suggest recruitment from lectures, online learning environments, social media groups. Recommend ideally not to recruit from groups which promote General Practice as a career due to risk of participant bias.

Equipment needed

Recording device

Pens

A4 paper

Immediately prior to the focus group :

Give each student a copy of the information sheet and the consent form.

Explain the study to the group and check for any questions, before asking students to fill out the consent form.

Give each student a copy of the questionnaire and ask them to fill in, reiterate that names on the questionnaire will be anonymised.

Run through the ground rules of the focus group, everything said is confidential, be open and honest, respect the opinions of others. Active discussion and respectful exploration of differences of opinion are encouraged.

Focus group

Ask each student to identify themselves (using their first name only). for the benefit of the recording. Explain to students that this is so different speakers can be identified on the tape, once the tape is transcribed the names will be replaced with identification numbers so their details are kept confidential.

Icebreaker and discussion aid

Give each student paper and some pens. Ask them to draw a GP. Ask the students not to write their names on the pictures to keep them confidential. Reassure students that this is not a test of their drawing skills!

Begin discussion, three “Lead”questions are outlined below with potential ways to encourage students to elaborate and discuss within the group around each question (either as further questions or prompts). Allow discussion to evolve, which may lead in additional directions to those outlined below!

1. What type of person becomes a GP?

Ask the students to describe their pictures for the benefit of the tape in turn. Students to explain why they have drawn and why they think this represents a GP. Facilitate discussion into why students believe this is a GP.

Points for elaboration:

What type of student chooses a career in GP? Why do you think those students are suited to a career as a GP ?

What makes you think this? Have your experiences shaped why you think your picture represents a typical GP?

Take prompts from the students descriptions, for example, if a student describes the clothes their GP is wearing, encourage them to elaborate as to why.

2. What do you think is the perception within your university of a career in General Practice?

Points for elaboration:

Are there any particular groups which hold this perception more strongly than others?

What makes you think that this is the perception of your university?

What do you think about this perception?

3. How do you feel about a career in General Practice?

Points for elaboration:

Encourage students to consider their responses to the questionnaire.

Why do you think General Practice is a career you would be interested in/not interested in.

Have you ever experienced anything which painted General Practice in a more positive light? (consider at university, work or home).

Have you ever experienced anything which painted General Practice in a more negative light (again consider university, work or home)?

How did these experiences make you feel?

Continue to discuss until saturation point appears to have been reached. It may be that some further discussion can be encouraged through asking the students if they have any other comments to make

Thank students and conclude recording.

At conclusion of focus group

Introduce to students the next stage of the study (the longitudinal diaries). Give each student an information sheet.

Ask if students would be interested in being involved in the longitudinal diaries. Those who would be interested, gain consent to email the student regarding this. Reiterate that students to not have to be involved in the longitudinal project, expressing their interest at this point will mean they receive an email and are free to decline.

Thank students for their time.

Following focus group

Before sending off collect contact details from questionnaires of those students who have consented to be contacted about the longitudinal study, for next stage recruitment. Explain to students that these will be kept within the institution, for them to be contacted about the longitudinal diary.

Scan and send all Questionnaires electronically to Kim (Kimberley.banner@nhs.net). Scan all drawings and send to Kim.

Send audio files of focus groups to Kim.

Once contact details for students who may wish to be involved in the longitudinal study have been extracted, destroy paper copies of questionnaires. Destroy drawings.

Appendix 7: Longitudinal study and debrief interview consent form

Medical student's perceptions of General Practice
Longitudinal Study and Debrief consent form

I, the undersigned, confirm that (please tick box as appropriate):

1.	I have read and understood the information about the project, as provided in the Information Sheet.	☐
2.	I have been given the opportunity to ask questions about the project and my participation. I understand that if I have further questions I can contact Dr Kim Banner (Primary researcher, details on information sheet).	☐
3.	I voluntarily agree to participate in the project.	☐
4.	I understand I can withdraw at any time without giving reasons and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn.	☐
5.	The procedures regarding confidentiality have been clearly explained to me. I understand that my questionnaire data, focus group comments and longitudinal data will be linked as part of this research. I understand that this will be held separately to my contact details, and my name will not be associated with any diary entries I make (unless there are concerns for my welfare or that of others as outlined in the information sheet).	☐
6.	The use of the data in research, publications, sharing and archiving has been explained to me and I consent to this data being used for further research projects.	☐
7.	I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of the data and if they agree to the terms I have specified in this form.	☐
8.	I agree to Dr Banner having access to my email address, in order to manage submission of my diary entries. I understand that my email address and name will be deleted once the data has been analysed.	☐
9.	I, along with the Researcher, agree to sign and date this informed consent form.	☐

Participant:

_____ _____

Name of Participant Signature Date

Researcher:

_____ _____ _____

Name of Researcher Signature Date

This study was approved by the Faculty of Medical Sciences Research Ethics Committee, part of Newcastle University's Research Ethics Committee. This committee contains members who are internal to the Faculty, as well as one external member. This study was reviewed by members of the committee, who must provide impartial advice and avoid significant conflicts of interests.

Appendix 8: Longitudinal study and debrief interview information sheet

School of Medicine
Framlington Place
Newcastle Upon Tyne
NE2 4HH

Students perceptions of General Practice
Participant information sheet – Longitudinal study

Who are the researchers and what is the research about?
Thankyou for your interest in this study on perspectives of medical students on a career in General Practice. The aim of our research is to find out students perspectives on a career in General Practice and how experiences in medical school and comments made by others may influence these perspectives. We aim to use this research to help understand why there are currently low numbers of Junior doctors entering GP training across the UK.

This research is being carried out at a number of medical schools throughout the United Kingdom. My name is Kim Banner and I am a GP Registrar working with Newcastle University, my role in the group is to coordinate and liase with participants. Any queries regarding the study can be directed to myself at kimberely.banner@nhs.net.

Each medical school has their own site lead, the lead for
..... (site name) is
..... (site lead).

What kind of research is being done?
Following the focus groups at each site we are performing a longitudinal study over a year, looking at how perceptions of a career in General Practice change in response to experiences at medical school. We ask for participants to record experiences or comments made by others with regards to General practice as a career, along with some thoughts on how these comments or experiences affected them in the form of an audio diary. We would suggest that participants may enter one recording per week, support will be offered throughout the process from Kim Banner, the corresponding researcher, and queries can be directed to the address above.

You will then have a debrief interview with the lead researcher (Kim Banner), usually via an online platform such as skype, at a time convenient to you. We will discuss your experiences and how they may have changed your thinking about General Practice. This will be recorded using a Dictaphone.

Who can participate?
Medical students at any of the involved sites, from first year or fourth/fifth year (dependant on student commitments).

What will happen with the recordings?
The recordings will be transcribed (typed up) and made anonymous so individual participants are not identifiable.

What will happen with the data?
The data will be transcribed (typed up) then be joined with data from other medical schools throughout the country and analysed for repeating themes. To try and gain an understanding of the factors which influence students perceptions of a career in general practice, and especially if any experiences or comments made at medical school encourage or discourage students from a career in General Practice.

Your comments will be kept confidential. Your personal details will be held separately to the written up comments which are made in the focus groups and your longitudinal diary, however comments made in the focus groups will be able to be linked to the data that you supplied in the questionnaire, for example the University which you attend. The principal researcher will have assigned your name and contact details an identification number in the first focus group, and your comments will be identifiable through this. Only the principal researcher will be able to link your name to your identification number. Your data will be confidential but subject to the usual limitations if there should be concerns for your welfare or that of others. If this occurs the research team would inform you of the need to break confidentiality. If staff at your University need to be informed about a disclosure you have made, Kim Banner will contact a nominated deputy at your institution, in order that the lead researcher within your institution is not able to identify you though your comments.

Your contact details will not be shared with any third parties.

Once the data collection and analysis is complete your name and contact information will be deleted, to unlink you form any comments made. The written up diaries (no longer linked to you by name) will be deleted/destroyed five years after the completion of the MD Research project (a research qualification undertaken by a medical doctor). Some of the data may be quoted in the research project.

The data will be written up as a report, this will be submitted to be published in a medical journal, and will also be written up as part of my (Kim Banner's) research project

What are the benefits of taking part?
You will be part of a UK wide study to try and understand why there is a shortage of Doctors wanting to become GP's.

Are there any risks involved?
There are very few risks in this kind of research, it may be that you find some of the experiences you encounter distressing or sensitive. If this is the case the principal

researcher can be contacted to offer pastoral care and liase with your university, or you can withdraw from the project at any time (see below).

Can I withdraw from the study?

At the start of the study we will ask you to sign a consent form to indicate that you understand this information sheet and are happy to be involved. You may withdraw your consent at any time during the study by informing myself (Kim Banner), at this point you will be free to leave the study. You may also request that prior recordings you made are not used, these will then be removed from the study data.

If after the year of making recordings you decide you would like to withdraw from the study, please contact myself on the email above. Please note that there may be a point at which we are unable to remove your comments from the study, for example once all the data has been published.

If you have any further questions about this study please contact the research team on the details below:

Kim Banner, Corresponding Researcher
School of Medicine
Framlington Place
Newcastle Upon Tyne
NE2 4HH

Site lead: (details below)

This study was approved by the Faculty of Medical Sciences Research Ethics Committee, part of Newcastle University's Research Ethics Committee. This committee contains members who are internal to the Faculty, as well as one external member. This study was reviewed by members of the committee, who must provide impartial advice and avoid significant conflicts of interests.

Appendix 9: What should I record in my audio diary?

What should I record in my Audio Diary?

We would like you to record in your Audio Diary any event which **you** feel is important to the study, in whatever way you feel is relevant. However the following may help you to consider what you might want to include. Please do not include any names or identifying information in your diaries.

Remember, an event can be anything which paints General Practice in a positive or negative light. This may be taught content at university, it may be from another part of your university life or it may be something you experience outside of University (with your house/flatmates, at home, online etc).

Following an event you feel is important: Consider recording:

1. What happened? Describe any details you think are important.
2. Where were you?
3. Who else was involved (if anyone)?
4. Was it a positive experience, a negative experience or were you unsure?
5. How did it make you feel?
6. Why do you think it made you feel this way?
7. Did it challenge any of your current ideas about general practice?

Appendix 10: How to record your audio diaries

How to record your audio diaries: The practicalities!

1. Go to your app store, search for the “Olympus dictation” app.

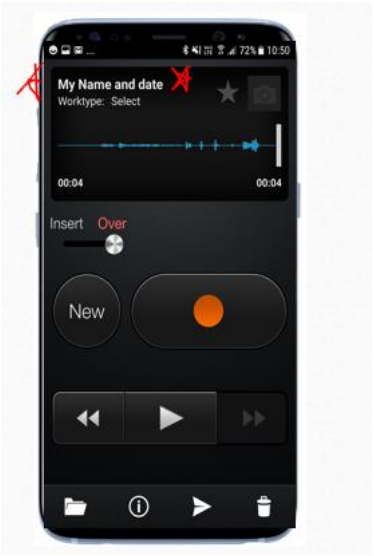
2. Download to your device.

When you are ready to make a recording….

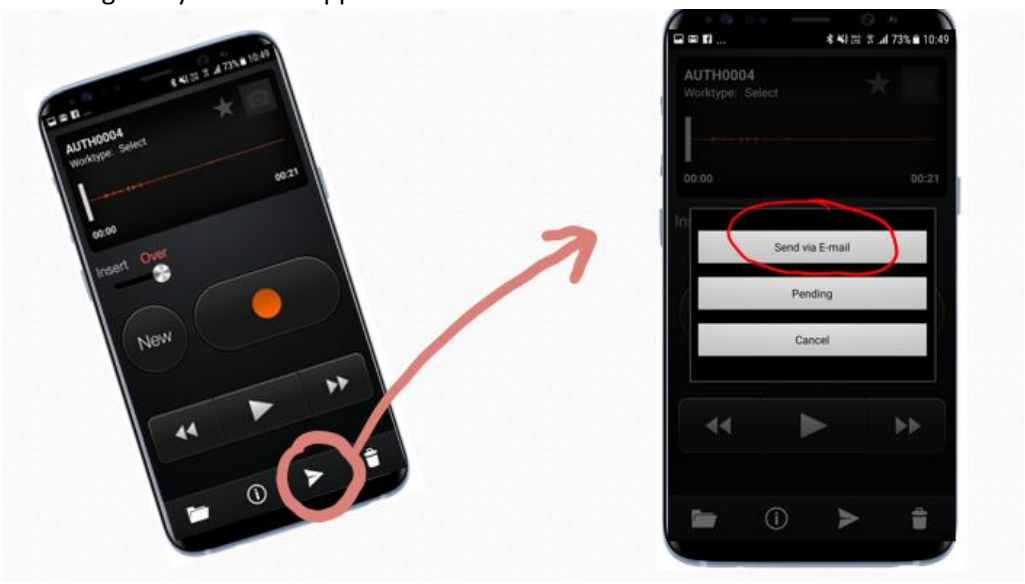
1. Open the app,
2. Select “New”

3. Press the record button to record your audio diary. And press it again to stop,

4. Click on the file name at the top, and replace it with your name and the date.



5. Click on the arrow shaped button then choose send via email. This will attach your recording into your email app.



6. Finally please send to Kim at Kimberley.banner@nhs.net

Appendix 11: Initial Semi Structured interview protocol

Recruitment

Suggest recruitment from lectures, online learning environments, social media groups. Recommend ideally not to recruit from groups which promote General Practice as a career due to risk of participant bias.

Equipment needed

Recording device

Skype or similar teleconferencing software

Student to be requested to have a paper and pen to hand

Immediately prior to recording:

1. In most cases the focus group will be run by KB (primary researcher) via skype or similar.
2. Ensure the student knows the details of the study, has read the information sheet and completed the questionnaire and consent form (available in paper or online).
3. Ensure the student knows the details of data management and link anonymity of the study.

Interview

Discussion aid

Ask the student to draw a GP using a paper and pen. Reassure students that this is not a test of their drawing skills, and you do not want to see the picture, this is just an exercise to make them think!

Begin discussion, three "Lead"questions are outlined below with potential ways to encourage students to elaborate.

What type of person becomes a GP?

Ask the student to describe their pictures for the benefit of the tape (there is no need for them to show the interviewer the picture!). Students to explain why they have drawn and why they think this represents a GP. Facilitate discussion into why students believe this is a GP.

<u>Points for elaboration:</u>

1. What type of student chooses a career in GP? Why do you think those students are suited to a career as a GP ?
2. What makes you think this? Have your experiences shaped why you think your picture represents a typical GP?
3. Take prompts from the students descriptions, for example, if the student describes the clothes their GP is wearing, encourage them to elaborate as to why.

What do you think is the perception within your university of a career in General Practice?

Points for elaboration:

1. Are there any particular groups which hold this perception more strongly than others?
2. What makes you think that this is the perception of your university?
3. What do you think about this perception?

How do you feel about a career in General Practice?

Points for elaboration:

1. Encourage students to consider their responses to the questionnaire.
2. Why do you think General Practice is a career you would be interested in/not interested in.
3. Have you ever experienced anything which painted General Practice in a more positive light? (consider at university, work or home).
4. Have you ever experienced anything which painted General Practice in a more negative light (again consider university, work or home)?
5. How did these experiences make you feel?

Continue to discuss until saturation point appears to have been reached. It may be that some further discussion can be encouraged through asking the student if they have any further comments.

Thank student and conclude recording.

Following interview

Most students will have gone through the interview prior to joining the longitudinal study, in this case, check they are happy to go ahead with the longitudinal study, explain the process of recording to them, and provide them with the audio diary advice sheets.

Appendix 12: Example of Narrative analysis process

The below demonstrates the process of Narrative analysis of the longitudinal data from participant 1205, known in chapter five as Sarah. As these analyses were performed using multiple large sheets of paper, these have been transcribed here for readability, and have had the associated quotes (previously on smaller sheets of paper) included.

It should also be noted, that the process of writing the analyses contained within this work, represents parts of these steps. Therefore, the following represents my own rough summarisation of the raw data, which were used to produce the work seen in this thesis.

As this is a direct transcript, abbreviations have been used verbatim. Although some grammar has been added to aid readability.

Step one:

Identify student demographics and GP likelihood from questionnaire data (broadening):

Participant code	1205
Year of study	4
Gender	Female
Age	<25
Ethnic group code	1 (English, Welsh, Scottish, Northern Irish or British)
GP Likelihood (start of study)	8/10
GP Likelihood (end of 6-month study)	8/10
"Top three" Career Choices (start of study)	General Practice, Oncology, Unknown
"Top three" Career Choices (end of 6-month study)	General Practice, Oncology, Paediatrics

Table 20: Example of demographics table

Step two:

Draw out and analyse experiences and perceptions prior to study:

1. Lectures, pressure to become a GP. Feeling that she wants to make her own decisions about work. Dislike of being "pushed" into a career. 50% GP quote!

   "In the first week of Medical School, the first thing in first year we were told that fifty per cent of us would become G.P.s, and I just thought that's ridiculous, no I don't want to be a G.P., I want to be something… weird, and wonderful." First interview, line 39-41.

"I'm quite stubborn, and quite independent, and I like to make my own decisions and I don't really like being told what to do. So, being told that you have to be a G.P. makes you think, oh no I'm not going to be a G.P., I'm going to be something else and prove you wrong." First interview, line 44-47.

2. Experiences with GPs, seeing more female than male. Seeing GP as boring. What is the source of these ideas? Other students? Experiences with GP in uni? "In my head". Reflective?

   "The, sort of, stereotype, you get as first year, in my head, of a G.P. and probably with quite a lot of other people. To start off with a G.P. is a really good career for females, and I know that there are a lot of male G.P.s but I think that's one of the biggest stereotypes around about G.P.s that it's a job for females. Maybe it seems a bit dull because, or another stereotype could be that G.P.s a quite boring job and not very varied" first interview, line 21-27.

   "I would say sometimes I've come across some G.P.s that fit the stereotype… it was maybe a stereotype that I use a lot more in my head with this." first interview, line 26-28.

3. Enjoys work of GP. Enjoyed these placements. Personal interest factor. Increase in interest. Sought further exp as a SSC. Independence and responsibility – compares with own perceptions of future work. Reinforces prev held belief?

   "It's the only place in the past year, in third year, that I woke up in the morning and thought 'oh my god, yes it's G.P!" first interview, line 58-59.

   "Then I decided to do an SSC in this term and everyday I've absolutely loved it, and I just love the whole community atmosphere and I just feel like it's a bit more homely and really getting to know patients and following a career for a long period… (I) was being given quite a bit of responsibility and independence whilst being on placement, being able to work on our own, but possibly getting broader constructive feedback was a really positive experience, and the G.P. that we were working with was a really, really good G.P., highly respected, and highly intelligent and he was a really good role model for us." first interview, line 61–63 and 67-70.

Step three:

Follow and analyse plotline of hanging percecption and career intention through the diary process:

1. Speaks to seniors. Considers bias, considers source. Work life balance advantageous.

"He said that being a G.P.s really good for your life work balance, it kind of more made me want to be a G.P. I know I have to be cautious with what people say because sometimes they're a bit biased but that is definitely an advantage, so yeah that's something to think about." diary entry 1, line 8-10.

2. Speaks to friends, reflective. Compares friends perception with her experiences. Role of personal enjoyment of topic? (Friends did not enjoy GP), or was their experience different? Open discussion with friends, RESPECT important, no apprehension or embarrassment.

   "Two of them (friends) who want to be in Anesthetics… they couldn't really understand how I could enjoy a G.P. placement because they've previously not enjoyed their placements which was interesting." diary entry 2, line 13-15.

   "I appreciate how much I've learnt and experienced… it's definitely made me more aware of the role of a G.P. and the day-to-day work that a G.P. does, and definitely has made me want to be a G.P. more and that conversation just reminded me, or highlighted that to me which was really nice." diary entry 2, line 17-20.

3. Non medic friend (complex, friend of a friend, went to GP with a dirty nappy on child as had to wait 45 mins to see GP, reported to safeguarding, friend then is late for GP as changing own babies nappy and was told to rebook). Embarrassment for profession? Fear about opinion of others? Others perceptions influence her desire to be a GP negatively.

   "He was just expressing how angry he was that G.P.s can be forty-five minutes, up to an hour late behind schedule and yet you have to wait for them. But if you're three minutes late you miss your appointment and get scrutinized for it and I think this whole conversation just made me feel a bit upset and angry for him, and his friend who've had negative experiences of G.P" diary entry 3, line 16-19.

   "I felt saddened that patients, or members of the public could feel this negatively about G.P. as a profession, and it made me, kind of, apprehensive to admit in the conversation that I wanted to be a G.P. at the moment and it also, sort of, dampened my desire to be a G.P. probably out of fear of being scrutinised" diary entry 3, line 20-22.

4. Conference. Meeting inspirational docs. OVERWHELMINGLY positive. Inspired. Helping others. Reflects against own wishes to help in career. "Prestigous!" GP's (!!) How much does this reflect real life GP? Again reflective and aware of bias.

"There were some really inspiring and interesting talks from a lot of experienced G.P.s… We had talks on G.P.s who look after homeless people and asylum seekers, and G.P.s who focus on health inequalities and managing those, and also we had a talk from a G.P. who specialises in Sexual Health, and this emphasized to me that G.P. is very flexible, and that you can shape your career into what you want it to be and to help those who you want to help." Sarah, diary entry 4, line 6-11.

"It was also quite inspiring to hear from very experienced, prestigious G.P.s from across the country who'd showed us what they'd done as G.P.s and what differences they'd made to certain people, and patients which was really inspiring (sic)*"* diary entry 4, line 13 to 16

"They all stood out as very inspirational GP's to me. But I think that could be the way the conference is designed is to try and get you to be influenced, like inspired" Sarah, diary entry 4, line 46-48

5. Denigration. Different to when her friends discussed GP. Due to the tone of discussion? If had been open and respectfull might she have considered their opinion? Discomfort at discussuion.

   "They said that G.P.s often refer patients with little, or no clinical information regarding the history and that often G.P.s don't do Breast examinations and all of the best Surgeons was, sort of like, laughing with each other at how ridiculous that can be." Sarah, diary entry 5, line 6-8.

Step four:

Analyse debrief, adding additional points to plotlines which are exposed and elaborate upon previously identified experiences to produce a coherent plotline:

1. (Cross ref step three, point four). Inspirational seniors, individual to the student. What makes a GP inspirational?

   *"I think it would be hit and miss with your placements as to whether you get a GP you can see is (*sic) *inspirational. But then that's also up to your interpretation if you want them to be an influential person in your life then you'll let them."* debrief interview, line 41-43

2. (Cross ref step three, point five). Becomes angry later, after reflecting on the situation. Did not challenge surgeon, power dynamic of situation? Different relationship to her friends? Not aligned with participant truth and opinion?

   "I just got a bit annoyed at him really and it was just a bit pathetic" debrief, line 240 -241.

"I think the way people can say nasty things about GP's, the way people can speak about GP's in a derogatory way and undermine GP as a profession. Because I am very much influenced by peoples feeling and thoughts and stuff and for me that was very difficult." debrief, line 234 to 236.

Step five:

Return to transcripts and audio files, consider understanding of previously analysed plotline. Amend and develop as needed.

1. (Cross ref, step two, point one): Reflective tone. Questioning her own stereotype? Engaged in the research process as reflective.
2. (Cross ref step three, point one): How does this compare with he knowledge of pushing GP?
3. (Cross ref step three, point four): Linking into driving force concept(!) Inspirational GP linked to personal driving force?
4. (Cross ref step three, point five): Sense of being irritated/annoyed. But uncomfortable in situation. Anger after the event, on reflection.
5. Global awareness of being participant in research, inc reflexivity?

Appendix 13: Nominated deputy protocol

GP Perceptions Study

Instructions for Nominated Deputy during the absence of KB

Brief summary of project:

This section consists of two main parts which your assistance is required with. These two parts are running simultaneously at multiple sites.

The aim of this project is to understand student's perceptions of a career in GP, and how experiences both at home and university impact upon these perceptions. I also aim to understand the institutional factors which are at play, how experiences at different universities may result in students developing different perceptions of GP.

Focus Groups

At each site (with some exceptions) there is to be two focus groups, one of first year and one of fourth year students (in sites where the MBBS/MBCHB course is six years, this will be first and fifth year students). The aim of this focus group is to understand students perceptions of General Practice and where they think these perceptions have developed from. Instructions of how to run the focus groups can be found in the first focus group protocol.

Longitudinal Study

For this part of the study recruited students will complete an audio longitudinal diary. Reflecting on their experiences regarding General Practice, and how this made them feel. Prior to starting the diaries student's will have an interview, during which they will discuss their perceptions of General Practice. They will then spend approximately six months recording an audio diary each time they have an experience relating to GP. At the end of the six month period they will have a debrief, during which they will discuss how their perceptions have changed.

Expected time commitment

I expect this role to take around 1 session a week. This is however very variable, when there are a number of students needing interview and debrief this may be more. However many weeks, the ongoing tasks are only email reminders to students, which will clearly take less time.

In July I will be able to clarify at which data collection needs to be completed at which site to have a more accurate estimate of the level of work which is required.

Role of the nominated deputy (ND)

Prior to leave KB will have started off students on the longitudinal study at UCL. I will aim to continue to manage and debrief these students myself, as I have already developed a relationship with them.

Management of longitudinal students from Manchester

At Manchester longitudinal students will have been recruited by the site lead, and interested student's emails will have been sent to ND to commence the longitudinal study. The aim is to gather data from two first year and two fourth year students at each site. This forms the bulk of the work for this study.

1. Site lead sends ND email address of interested student. From this point onwards management of the longitudinal students is identical for both Newcastle and other sites.
2. ND makes email contact with student, and sends a copy of longitudinal study information sheet. If student is happy to proceed email links to the consent form and questionnaire (provided later) and arrange date and time for interview. This can be either face to face or via skype or similar.
3. Perform interview as per the Interview protocol. Review with the student the details of the audio diary part of the study. Advise student we would like them to make a short audio diary (2-3 mins) every time they have an experience relating to GP, hopefully once every three weeks or so. This is done via a simple app, and they should then send their recordings to the ND. Take this opportunity to send them a copy of the "practical guide to recording audio diaries" and "what should I record in my audio diary" documents. We would like them to tell us what happened, what it made them think, and if it made them think differently about GP. Advise this will be for around six months and at the end of this period there will be another short interview.
4. When a diary is received, forward this onto KB (Kimberley.banner@nhs.net). Send email to student thanking them for their diary contribution.
5. If a diary is not received for longer than four weeks, send an email to the student, gently reminding them about the diaries.
6. After four to five months of diaries, contact the student to arrange a debrief time. This can be at a time that is convenient to the student (for example, after elective, before exams etc) and either face to face or via skype. This should be at a mutually convenient time for both the ND and the student, so may be on an evening or weekend if that is appropriate. Prior to the interview ask the student to kindly answer the following two questions via email: 1) On a scale of 1-10 how likely are you to choose a career in GP in the future? 2) What are your top three preferences for a career when you leave medical school? (You may notice these are the same questions from the questionnaire! This is to compare if their likelihood of choosing GP has changed in light of their experiences). Forward these answers to KB.
7. Prior to the interview read through the students transcriptions (which are available from KB), or listen to their audio diaries. Make notes and consider questions to debrief them on their experiences. For example, you may ask how they felt after their experience, if it changed how they felt about General Practice, etc.
8. Conduct and record interview, thank the student for their time. Send recording to KB as above.

9. If the student wishes, send them a personalised copy of the thankyou letter for their portfolio (file sent separately).

Data management

There is a need to keep either the students recordings or notes on these for the duration that they are in the study, in order to discuss these at the debrief afterwards. It is important that these files are kept in a password protected device, and that they are deleted once the student completes their role in the study. As data management requires that copies remain only with KB.

Focus group recordings at other sites

At some sites focus groups may not have been performed yet. In these cases the recordings and data should be sent directly to KB from the site lead, bypassing the ND.

Zoom meetings

These online meetings take place approximately once every two months. In these meetings the leads from all the sites meet to discuss the progress at each site. These are usually at 8am on a Tuesday or Thursday. These will continue to be organised by KB, however this may be at a reduced frequency during maternity leave. It would be preferable if the ND could attend these online meetings, or provide an update to KB prior to the meeting.

KB responsibilities during maternity leave

During maternity leave KB will continue to:

1. Enter students details (emailed via the ND) into the project spreadsheets.
2. Manage (potentially with some assistance) students who have already begun the longitudinal process prior to maternity leave.
3. Arrange for the transcription of audio files.
4. Anonymise students details, in order to ensure only KB and the ND are aware of students identifiable information.
5. Organise and attend zoom meetings.
6. Respond to email or whatsapp queries (please note that email out of office response will direct students in the first instance to the ND).

Attached Relevant documents

First Focus group protocol

Questionnaire

Consent form first focus group

First Semi Structured interview protocol

Information Sheet, Longitudinal Study and Focus groups

Instructions for recording audio diaries for students

Practical Guide to audio diaries

What should I record in my audio diary

Flyers

Thankyou Letter for students

Electronic questionnaire

https://www.surveymonkey.co.uk/r/NG2YYJH

Electronic consent

https://www.surveymonkey.co.uk/r/NMBF6Z8

Acknowledgment

Acknowledgement of this (much appreciated) role will be in the final thesis, and also any published papers.

Appendix 14: Data collected

An expansion of figure 12, breaking down volume of data collected at each stage of the collection process.

Participant	Interview length (min:sec)	Diary lengths (min:sec)	Debrief length (min:sec)
1105	17:25	Lost to follow up	
1106	14:50	2:06, 1:51, 2:19, 1:54	27:47
1107	22:55	Lost to follow up	
1205	11:18	2:56, 3:05, 2:16, 1:16, 2:14	24:13
1206	13:02	2:54, 1:49	27.18
1207	15:07	1:40, 1:30, 1:47, 1:21, 1:49	29:21
2201	19:58	Lost to follow up	
2202	22:51	1:18, 2:01, 3:35, 1:58, 3:28, 2:11, 3:13, 5:17, 1:02, 2:59, 5:30, 1:08, 1:14, 1:53, 1:29, 2:08, 2:20, 1:34	52:53
3203	18:29	4:59, 1:59, 7:28, 4:13, 3:26	28:54

Table 21: Interview, diary and debrief lengths for all participants

Site	Length focus group first year (min:sec)	Length focus group penultimate year (min:sec)
Newcastle	27:56	24:29, 32:30
UCL	40:10	29:46
Manchester	49:16	NA

Table 22: Focus group lengths for each site

Appendix 15: Rating scale questionnaire data

The table below further breaks down the frequency and ranges of scores selected for "liklihood to choose a career in GP" in the questionnaire at the start of the study.

	Frequency									
Assigned Score	Global	First year of study	Penultimate year of study	Male	Female	<25	25-35	Site A	Site B	Site C
3	1	0	1	1	0	1	0	1	0	0
4	1	0	1	0	1	1	0	1	0	0
5	7	4	3	5	2	7	0	3	2	2
6	6	4	2	2	4	6	0	4	1	1
7	2	0	2	1	1	2	0	0	1	1
8	6	0	6	2	4	4	2	4	2	0
9	1	0	1	0	1	1	0	1	0	0
Total Responses:	24	8	16	11	13	22	2	14	6	4
Mean assigned score:	6.21	5.5	6.06	5.73	6.61	6.05	8	6.21	6.5	5.75
Mode assigned score:	5	5,6	8	5	6,8	5	8	6,8	5,8	5
Median assigned score:	6	5.5	7	5	6	6	8	6	6.5	5.5
Range of responses:	6	1	6	5	5	6	0	6	3	2

Table 23: Rating scales and their frequency within the questionnaire data.

Appendix 16: "Top three" career choices at the start of the study, table of frequency

The table below depicts the frequency at which each career was identified as one of the top three by students completing the questionnaire at the start of the study. A summary of this table is provided in section 4.3.2 For ease of reading the shaded cells indicate the three careers which were most frequently occurring in each column. Some students identified careers such as simply "doctor" or "specialist" in their free text choices. The "unknown" category represents students who indicated in their questionnaire that they did not know what their career preference would be. Two participants of the 26 declined to submit any career choices.

	Frequency			
	First choice of career	Second choice of career	Third choice of career	Combined
General Practice	8	1	5	14
Paediatrics	3	4	4	11
Neurology	2	1	0	3
Unknown	2	3	6	11
Dermatology	1	0	0	1
Surgery	1	3	0	4
Neurosurgery	1	0	0	1
Specialist	1	0	0	1
Doctor	1	0	0	1
Respiratory Physician	1	0	0	1
Orthopedics	1	0	1	2
International medicine	1	0	0	1
Emergency Medicine	0	3	1	4
Obstetrics and gynaecology	0	1	1	2
Medicine	0	1	0	1
Oncology	0	1	1	2
Psychiatry	0	1	0	1
Acute medicine	0	1	0	1
Immunology	0	1	0	1
Radiology	0	1	0	1
Cardiology	0	1	1	2
Expedition Medicine	0	0	1	1
Geriatrics	0	1	0	1
Portfolio career	0	0	1	1
Research	0	0	1	1
Pharmaceuticals	0	0	1	1
Venture capitalism	1	0	0	1
Total	**24**	**24**	**24**	**72**

Table 24: Frequency of career choices, as first, second or third choice