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Exploring medical students' experience of the hidden curriculum around Primary Care careers using reflective diaries

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Abstract

Objectives

Primary health care internationally is facing a workforce crisis with fewer junior doctors choosing General Practice (GP) as a career. In the UK, a national report on GP careers highlighted adverse influences during medical school on students' career choices. The authors explored these influences in two urban UK medical schools, both with relatively low numbers of students entering General Practice training.

Design

Using a phenomenological approach, the authors thematically analysed the reflective diaries of medical students who were recruited as 'participant researchers' over a period of ten months. These students made regular reflexive notes about their experiences related to GP career perceptions in their academic and personal environments, aiming to capture both positive and negative perceptions of GP careers. The research team discussed emerging data and iteratively explored and developed themes.

Setting

Two UK medical schools

Participants

Undergraduate medical students

Results

Seven key themes were identified: the lack of visibility and physicality of GP work, the lack of aspirational GP role models, students' perceptions of a GP career as default, the performativity of student career choice with the perceptions of success linked to specialism, societal perceptions of GP careers, gender stereotyping of career choices and the student perception of life as a GP.

Conclusions

Students overwhelmingly reflected on negative cues to GP careers, particularly through their experience of the hidden curriculum. Three recommendations are made: the need for increased representation of GP role models in clinical curricula content delivery and senior leadership; ensuring GP clerkships involve an active and authentic student role with patients, enabling students to experience GP's "work" including managing complexity, uncertainty and risk. Finally, institutions need to consider students' experiences of the hidden curriculum and the effect this can have on students' perception of careers, alongside the challenges of rankings and perceived hierarchical positioning of disciplines.

Strengths and limitations of this study

- The study uses a longitudinal design with a phenomenological approach to gain an accurate sense of the medical students' experiences of the hidden curriculum related to GP careers.
- Students were themselves "participant researchers" who were involved in the analysis of the data to authentically understand and interpret their reflections.
- A limitation is the low number of participants, however this allowed us to have engaged participants able to continue data collection over a longitudinal period.
- Furthermore, the results are not necessarily generalisable as two institutions were involved who are both urban and research intensive.

Word count :4101

Introduction

The World Health Organisation regards universal Primary Health Care (PHC) as a central pillar to improving global health¹, and tackling COVID19². Despite this growing global need for PHC doctors, recruitment into PHC careers remains an international challenge³⁻⁵. Studies have explored the factors that may influence doctors' declining interest for careers in PHC^{6,7}. These include factors such as: perceived lack of intellectual challenge, social status, medical school exposure, lack of role models, working conditions and remuneration⁵.

In the UK, the Department of Health has set a target for 50% of medical graduates to enter PHC as a career⁸. However, UK medical schools are currently far from achieving this target⁹. A national report examining how medical students can be supported towards a career in PHC, highlighted the role the hidden curriculum can play in shaping career choices⁹.

The hidden curriculum, is the implicit academic, social or cultural message experienced by students and, in the context of career choice, this can include the role of bad-mouthing ("bashing") of specialties and other "informal" comments at medical school^{10,11}. These subtle but powerful messages often influence career decisions and operate at institutional levels¹². Previous studies looking at recruitment into PHC have used focus groups, interviews and student surveys^{11,13}. Although useful, these methods provide a snapshot of students' experiences and the data can suffer from recall bias. When investigating the experience of medical students, it can be the throw-away comments or non-verbal gestures, such as the subtle raising of an eyebrow, which communicate powerful messages to learners. Such

1
2
3 communication, and certainly the context, can help to explain the lived experiences of
4
5 medical students, especially in relation to decisions about PHC careers.
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10 Given this gap in the literature, we have designed this study using a phenomenological
11
12 approach to answer the following questions: What are medical students' experiences of the
13
14 hidden curriculum around GP careers in UK medical schools? What other factors are
15
16 affecting medical students' perceptions of GP as a career?
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Methods

Conceptual stance and study design

This was a phenomenological study using reflections on clinical practice recorded in diaries by medical students recruited as ‘participant researchers’. We used a phenomenological lens which assumes that reality is understood through an individual’s interpretation of their experience¹⁴. In the context of this study, the focus is on the students’ experiences in medical school, which includes the explicit and hidden social, cultural, and academic experiences around GP careers. However, it is important to consider how these experiences have been understood and interpreted by the individual students involved. To facilitate this conceptual approach, reflective student diaries were used; this method enables a rich understanding of experiences and has been used previously to explore sensitive areas^{15,16}.

Setting

This research was conducted in two urban UK medical schools, which were selected opportunistically, and both had low percentage of students entering GP training in national rankings¹⁷. It was hypothesised these students may experience more pronounced cultural practices that push students away from GP.

Recruitment

Four medical students from two sites were recruited as primary data collectors, and acted as “participant researchers”¹⁸. They were from various stages of their clinical years and were recruited using a pragmatic approach through formal and informal networks. Each of the students had an interest in medical education research. None had firmly decided on their career routes, however, all four students indicated they were *unlikely* to pursue GP careers. Given the longitudinal nature of the study, four students were included to gather sufficient

1
2
3 data entries over ten months to gain a sense throughout an academic year of the medical
4
5 students' experiences.
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8
9

10 **Data collection**

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12 Prior to starting, guidance was provided to the students regarding the process of writing a
13
14 reflective diary entry. During the study, the students made regular reflective entries, whilst
15
16 attending routine educational and clinical activities, about their experiences of how a GP
17
18 career was viewed by clinicians, faculty and peers. The pre-eminent feature of entries was
19
20 that they were memorable and noteworthy for their content in relation to the research
21
22 questions. The length and frequency of entries varied, some being a paragraph while others
23
24 filled a page.
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30
31 Anonymised reflective notes were captured contemporaneously, or shortly after the event to
32
33 minimise the effect of recall bias. The anonymised data in the form of word-processed
34
35 documents were stored on an accessible drive open only to the student researchers and
36
37 supervisors.
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40
41

42 **Data Analysis**

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46
47 Given the phenomenological stance of this study, it was felt that the students themselves
48
49 should analyse the data (JSJY, SCCC, SM, RS), with support and guidance provided from
50
51 faculty members (RP, MJ, SS, EG, CG, SK, SP). This was felt to be the most congruous
52
53 approach, as given our epistemological stance, the students' co-participation in analysis was
54
55 important, bringing their experience and reflections into the process of data interpretation and
56
57 analysis¹⁹. The data was analysed using a thematic framework approach²⁰. This involves the
58
59
60

1
2
3 following stages: familiarisation of the data, initial code generation, searching for themes,
4
5 and reviewing defining and naming these themes ²⁰. Regular data clinics were held initially
6
7 on individual sites and then jointly, to clarify the nature of the emergent data and support the
8
9 students during the period of data collection and to agree on the developing themes.
10
11
12
13

14
15 The study received granted ethical approval from both institutions (XXX project ID
16
17 12627/002 and XXX MEEC18-79). No patient data was collected, and no data was collected
18
19 in National Health Service (NHS) settings (hospital or primary care) at either site. All data
20
21 collected was fully anonymised to protect confidentiality of those who may be involved.
22
23 Students consented to be participant observers. The academic researchers were not directly
24
25 involved in the academic assessment of these students.
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30 **Reflexive statement**

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32
33 The project leads from both sites were all practising GPs and involved in GP undergraduate
34
35 education. Contextually, this project was developed shortly after the publication of the Wass
36
37 report ⁹. Data clinics were conducted with both faculty and students and explicit critical
38
39 reflexivity was used to question and acknowledge any potential bias or assumptions during
40
41 the study.
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46 **Patient and public involvement**

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48
49 Given the focus on assessing the hidden curriculum in medical school patients and the public
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51 were not involved in the design, data collection or data analysis.
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Results

Students collected data reflecting on experiences gained from campus teaching, clinical teaching (in primary and secondary care) and the external environment (such as conversations with peers and family). Where quotes are used these represent verbatim extracts of the students' reflections, not of those informants that were observed.

The key themes developed are listed in table 1 and described in detail below with key quotes and identified by participant but not by study site, student year or gender.

Summary of Themes identified
Visibility and physicality of work
Career default options
Role modelling
Specialty hierarchy
Societal perceptions of GPs
Gender stereotyping in medicine
GPs viewed through the student "lens"

Table 1: List of the key themes

Visibility and physicality of work

1
2
3 Students described the importance of the visibility of the work performed by doctors, and
4 their ability to perceive its immediate rewards . They contrasted the experience in GP with
5 acute settings. Students felt in acute settings, they were able to see the results of their actions,
6
7
8 leading to an increased drive to learn and enjoyment.
9
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14
15 *“ ...perhaps this is the problem with GP... it is very difficult for people to envisage*
16
17 *the impact they have on their patients”*
18

19 *Student 1*
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21
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23
24 *“...being in A&E [Emergency Medicine] and acute settings attracts medical students*
25
26 *away from GP as you can have an easily visible impact on patients very quickly”*
27

28 *Student 1*
29
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32

33 This observed difference in the immediacy of results between the different specialties, led to
34 the work of GPs being perceived as boring by students and faculty from other specialties:
35
36
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38
39

40 *“A consultant told us we should want to do A+E surely as it is far more exciting than*
41
42 *GP, although GP would give us a better work-life balance. Being told that you won't*
43
44 *get any excitement out of working as a GP doesn't make that look like a viable*
45
46 *career.”*
47

48 *Student 2*
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3 The physicality of the specialty was also identified, specifically perceptions of dynamism
4 related to clinicians' movement. Students noted in acute medical settings they were able to
5 see the physical actions of doctors standing or moving quickly; seen as actively providing
6 care. Whereas the image of GPs passively sitting at their desk or in meetings, was contrary to
7 students' perceptions of being an active care provider. Students described how in the
8 physically active healthcare environment it was easier for students to 'penetrate', in contrast
9 to students' ability to feel included sat in a GP' consulting room.
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22 *"Some of the students said that they can no longer sit still for an extended period of*
23 *time and implied that medicine is not about sitting around for the whole day (i.e. what*
24 *GPs do in the office)."*
25
26
27

28
29 *Student 3*
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33 However, some students did describe the benefit of being actively involved with patient
34 consultations in GP and the impact this can provide for patients.
35
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40 *"actually in the GP attachment they saw so many patients and were able to help each*
41 *one of them come to a solution within the 15 minute consultation."*
42
43
44

45 *Student 3*
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50 This perception of a lack of immediate impact, excitement and activity in GPs' work was
51 referenced in everyday conversations. This generally passive perception of GP amongst
52 students and hospital faculty feeds into the hidden curriculum of GP being seen as "boring"
53 with little active involvement or impact.
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The “default” option

Students often viewed GP as the “default” career option. Our data demonstrates two main factors that shape this perception. Firstly, students commented on the impact of being told during teaching sessions how many will become GPs, and the way in which faculty members described GP as a career, including the words, tone and insinuation used.

“We all disliked the fact that throughout our respective courses, we often had the “50% of you will become GPs” quote thrown at us during a lecture, albeit in an entirely professional manner, but this led us to feel that most of us would be forced down a career we disliked”

Student 1

Secondly, entry to GP training was perceived as having little or no competition, which itself perpetuated the idea that students would not want to enter GP training, as it went against their personal aspirations of being high achieving and competitive professionals.

“A friend commented to me they would do anything, even GP...It just struck me that they consider GP to be the proverbial bottom of the rung when it comes to clinical placements and that it could actually be some sort of punishment if you were to end up in GP .”

Student 2

Students commented on peer discussions where GP was consistently seen as a fallback or easier option if they were not successful in other specialties.

1
2
3 *“A student told me they don't want to be doing exams and being in a hypercompetitive*
4 *environment like this all their life, they would rather just be GP. This seems to always*
5 *be the option that people revert toGeneral practice is still time and time again*
6 *seen as being the ‘easy way out’.”*
7
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11
12 *Student 4*
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16 **Role-modelling**

17
18 Another recurring theme throughout the data was the description of a lack of GP role models
19 in visible teaching clinical positions at medical school.
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24
25 *“One of the big things that struck me was people saying I want to be like Dr X... or*
26 *such and such a lecturer. ... as most of our teachers don't come from a GP*
27 *background many students don't seem to want to follow that as a career.”*
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32 *Student 2*
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37 In addition, when GPs were involved in teaching, it was felt they were teaching “soft”
38 subjects and not “real medicine”.
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43
44 *“GPs teach all the softer stuff - communication, ethics and law, professionalism,*
45 *social determinants of health.”*
46
47

48 *Student 3*
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52 **“Specialty Hierarchy”**

53
54 An implicit model was perceived by students of a “specialty hierarchy”, with GP seen as
55 inferior by some hospital clinicians and subsequently, students. Our data demonstrated two
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2
3 main factors contributing to this “specialty hierarchy”. Firstly, badmouthing, attitudes and
4
5 stigmatisation:
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9

10 *“A consultant reported even if they wrote it in the letter the GP wouldn't understand.*
11 *They explained they need to keep the letter as simple as possible. This seems to be a*
12 *recurring theme that I see in clinics or amongst hospital doctors, where GPs are*
13 *spoken of in an almost derogatory manner”*
14
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19 *Student 4*
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24 Interestingly, there were more occurrences of more subtle and passive negative attitudes
25 towards GPs mentioned in off the cuff or throwaway comments by other faculty members,
26 who are often seen themselves as a role model for the students.
27
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33 *“The consultant told us that cancer markers were not useful in young women, not*
34 *being specific enough, then going on to comment that it was all too often that GPs do*
35 *the blood test without knowing what the result could mean.”*
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40 *Student 1*
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45 Secondly, lack of intellectual rigour was also described as a recurring comment across
46 students, faculty, friends and family. Students often described instances where hospital
47 doctors were using mistakes made by GPs as material for a teaching session, which
48 perpetuated the sense that GPs were intellectually inferior.
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3 *“He (hospital faculty) described a GP stopping the medication of a pregnant*
4 *woman ... being the wrong thing to do. This incident made me think that GPs were*
5 *not very skilled individuals, leading them to take the wrong decisions.”*
6
7

8
9
10 *Student 1*
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14 Interestingly, the students not only commented on how this affected their perception of GPs,
15 but also that they did not want to be seen in the same way by their colleagues if they did go
16 into GP, even if they disagreed with the comments.
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19

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23
24 *“Insinuations that they're (GPs) not very smart or with it will of course put us off*
25 *going into that field. Even if we know it isn't true, who wants to be looked at or*
26 *considered by other doctors as not being smart?”*
27
28

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31 *Student 4*
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34
35 It is important to note that on the rare occasions when the opposite was observed, such as
36 consultants commenting positively about GPs and the respect they have for their GP
37 colleagues, this had a significant impact on the students' perceptions.
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45 *“I've only heard a consultant say once that GPs get a lot of the brunt of the*
46 *inefficiencies in our healthcare systems - it can't be easy, we don't give them enough*
47 *credit for it.”*
48
49

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51
52 *Student 4*
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56 In addition, there appeared to be an accepted culture of medical school that specialisation
57 equates to success. The data showed how, during social interactions, students described how
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1
2
3 they perceived GP as being “easier” and less superior due to the lack of “specialist”
4
5 knowledge.
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10 *“the students were discussing that GPs cannot make significant changes and are*
11 *always required to refer constantly. Therefore, during the discussion, I was given the*
12 *impression that having in-depth knowledge in one specialty is superior to knowing a*
13 *bit of everything; because no matter which specialty, you would still have the*
14 *knowledge of general medicine”*
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21 *Student 3*
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25 **Societal perceptions of GPs**

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27 Societal perception of GPs also played a role. Several observations reflected how there was
28 an ingrained message across interactions with non-medical friends, family and society more
29 generally that being a GP was less successful than other specialties. One of the students
30 described how a non-medical friend made a comment which was casually laughed off:
31
32
33
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37
38

39 *“I got asked what if you don't do well at medical school, or aren't very bright and do*
40 *badly in [exams] to which one of the non-medics replied that you fail and become a*
41 *GP. Everyone laughed at the comment and it was brushed aside.”*
42
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46 *Student 2*
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51 These wider societal views may shape medical students' views about GP even before they
52 enter medical school. One of the students commented on their experience when helping
53 during a university open day:
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1
2
3 *“One of the common questions I got asked was whether introducing more GP into the*
4 *curriculum could dilute the scientific nature of the course.”*
5
6

7
8 *Student 2*
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12 The students often comment on the impact of the views of friends and family, who often
13 include key role models for the students, in shaping their view of GP.
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18
19 *“the experiences of medical students’ friends and families matter a lot and these*
20 *opinions and stories (positive/negative) can largely influence students’ perspectives.”*
21
22

23
24 *Student 3*
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26 27 28 29 30 **Gender stereotypes in general practice** 31

32
33
34 The data also demonstrates a persistent message during medical school that GP is seen as a
35 specialty for women and ideal for those wanting families.
36
37

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40
41 *“Women are told directly or indirectly that they’ll probably “end up” a GP if they*
42 *want children and a family”*
43
44

45
46 *Student 3*
47

48
49
50 This feminised image of GP was described consistently in the data from comments by
51 students in social settings, to faculty discussions and opinions from families. Often the
52 comments were subtle, or made in the context of a different discussion, but the hidden
53 messages remained consistent.
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1
2
3 *“a male consultant commented as we get more women coming into the NHS they will*
4 *want to take up the part time roles of General Practice”*
5
6

7 *Student 1*
8
9

10 11 12 13 14 **GPs viewed through the student lens** 15

16
17
18 There were three key areas of how GP careers were viewed through medical students’ eyes:
19 work-life balance, the isolation of working as a GP and the role GPs have with their patients.
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24
25 Students consistently perceived GP as having a better work-life balance than other
26 specialties, describing shorter training time and more flexible working hours. These views
27 often overshadowed any other aspect of the discipline, often being the most significant factor
28 when students were discussing choosing a career as a GP.
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36
37 *“A specialist doctor commented about the benefits of [GP] – including high pay and*
38 *good lifestyle balance”*
39

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41 *Student 3*
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46 Students perceived GP as a patient-focused specialty, but also as lonely and isolating, with
47 individual GPs interacting only with patients, rather than as part of a team, in contrast with
48 what they have experienced in their hospital placements where they experience team ward
49 rounds and more social team interactions.
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3 *“I now feel like there is a relative isolation of a GP practice. Whilst you may not be*
4 *working with the people all the time in the hospital, the ability to meet for lunch/grab*
5 *a coffee is much greater than in General Practice”*
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10 *Student 1*
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14 There were conflicting views from students about the desirability of the GP’s role more
15 generally. Medical students seem to have some appreciation for the role that GPs play in
16 patient care, however, students seemed to be divided whether this was a desirable feature.
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24 *“...my experience in medical education has demonstrated to me that GPs perform a*
25 *vital role in coordinating patients’ care, avoiding A&E admission”*
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29 *Student 1*
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Discussion and Future Directions

This study addressed a gap in existing literature, by providing insights into the hidden curriculum experienced in medical school of student perceptions of GP as a career. The conceptual stance and methodological approach used captures a candid and authentic account of medical students' experiences, enabling us to enhance our understanding of the potent hidden curriculum^{12,21,22}.

This concept of the hidden curriculum has been challenged in literature, with critique around how "hidden" this curriculum may now be and how this metaphor may itself be a barrier to change²³. However, we would argue what we have described is a systemic experience of students which influence their perceptions of GP as a career. In the academic education community, this phenomenon may no longer be "hidden", however for our students, exposure to these attitudes are endemic.

The themes identified can broadly be categorised into three areas of influences: experiences during clerkships, experiences during medical school, and influences from family and society.

Students commented on the lack of visible work in community clerkships. This can be interpreted as a lack of opportunity for the students to appreciate the 'active' cognitive processing required by GPs as they manage complex, multi-morbid patients, which include weighing up risks and benefits and a high degree of clinical uncertainty. In contrast, the more explicit experience of managing a cardiac arrest in hospital allows the students to obviously see the actions and immediate impact of interventions. In addition, the role of the students during their clerkships needs to be examined, the data suggests students perceive GP

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3 clerkships as being passive and boring. However, when students were able to have
4
5 responsibility of seeing patients and understanding the cognitive challenges, students
6
7 commented on how they gained an appreciation and respect for the discipline.
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12 The hidden curriculum throughout medical school was pervasive in the data. Interestingly, on
13
14 a number of occasions students reflected on how they disagreed with the negative comments
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16 we report, but the fear of being viewed in a negative way if they were to reveal an intention to
17
18 pursue a GP career, pushed them even further from considering GP.
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24 Finally, the influence for students of their family and society was also strong in the data. The
25
26 perception of GP as being less prestigious than other specialties often reinforced this career
27
28 hidden curriculum.
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31 32 33 34 35 **Strengths and Limitations** 36

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40 The phenomenological and longitudinal approach to this study, using reflective diary entries
41
42 and participant researchers are key strengths to this study. The longitudinal design enabled
43
44 students to showcase a variety of different interactions to obtain their experiences of the
45
46 hidden curriculum. Involving the students in the analysis of the data was vital to understand
47
48 and interpret the reflections.
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52
53 There are limitations to this study. The institutions involved are research intensive and so the
54
55 findings are not necessarily generalisable to other universities. Participant researchers
56
57 themselves may share or collude in institutional norms and may not be independent or
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1
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3 external enough to critically evaluate the culture. We acknowledge the low number of
4
5 participants researchers in the study, however, this allowed us to have engaged participants
6
7 able to continue data collection regularly over a longer period. The research team included
8
9 both students and faculty members, who were keen to understand how students' views of GP
10
11 careers are shaped.
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17 We also acknowledge that the experiences during medical school are one of many that
18
19 together will influence decision on careers ⁷. However, there is little research exploring the
20
21 influence of the hidden curriculum using such a novel methodology to understand the
22
23 students' experiences.
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33 **Recommendations for practice**

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38 This study highlights three key implications relevant for institutions in tackling the hidden
39
40 curriculum experienced by students around PHC careers.
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44 Firstly, there is a need for PHC role-models for students. This is not simply increasing the
45
46 numbers of PHC doctors working in educational institutions; but to widen the teaching of
47
48 PHC doctors in the undergraduate setting beyond traditional areas in the curriculum. Co-
49
50 teaching with PHC doctors, specialists, scientists and other members of the multi-disciplinary
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52 team teaching together has been shown to be an effective tool in breaking down professional
53
54 barriers, and role modelling mutual respect ²⁴.
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3 Secondly, there is a need to ensure that community clerkships based in PHC allow students to
4 take an active role with patient management. The literature on this is extensive and
5
6 demonstrates the need for students to work authentically, seeing patients who have a need to
7
8 be seen by a healthcare professional, rather than patients deemed “suitable for students”. By
9
10 doing so, students understand the knowledge, challenges and skills required in primary care
11
12 around uncertainty, risk, and patient empowerment. Many models have been developed to
13
14 help educators implement such a design including the use of longitudinal placements ²⁵. PHC
15
16 doctors must allow students to experience and understand the cognitive processes they are
17
18 working through when seeing patients with clinical complexity, medical uncertainty and
19
20 ethical challenges by making the implicit explicit.
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29 Finally, there is an imperative need for educators to tackle the pervasive impact of the hidden
30
31 curriculum around careers. There is a need for all faculty to be increasingly accountable and
32
33 aware of the impact of their comments, actions and the culture created which students
34
35 experience.
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43 **Implications for research**

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46 There is a need to conduct similar studies at other institutions internationally using a similar
47
48 methodology and to explore how students’ experiences prior to university may influence
49
50 their perceptions of PHC careers. There is also a need to review the impact of outside
51
52 influences on medical students, including the portrayal of doctors in the media. The impact
53
54 that competitive medical selection may have on the perception of PHC as a career also needs
55
56 to be explored, as there may be links between certain selection processes and career
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3 intentions²⁶. Crucially, there is a need to discuss these tensions and issues with our students,
4
5 so they can critically evaluate and challenge these cultural norms with faculty, patients and
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7 more broadly, society.
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Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

No	Item	Guide questions/description	
Domain 1: Research team and reflexivity			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	N/A as thematic analysis of reflective diaries
2.	Credentials	What were the researcher's credentials? <i>E.g. PhD, MD</i>	As stated in the author list
3.	Occupation	What was their occupation at the time of the study?	As stated in the author list
4.	Gender	Was the researcher male or female?	As stated in the author list
5.	Experience and training	What experience or training did the researcher have?	As stated in the author list
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Yes, participant researchers
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? <i>e.g. personal goals, reasons for doing the research</i>	Participant researchers
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? <i>e.g. Bias, assumptions, reasons and interests in the research topic</i>	N/A
Domain 2: study design			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? <i>e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</i>	Phenomenology
Participant selection			
10.	Sampling	How were participants selected? <i>e.g. purposive, convenience, consecutive, snowball</i>	Purposive – as participant researchers
11.	Method of approach	How were participants approached? <i>e.g. face-to-face, telephone, mail, email</i>	N/A
12.	Sample size	How many participants were in the study?	N/A – participant researchers
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	N/A – participant researchers
Setting			
14.	Setting of data collection	Where was the data collected? <i>e.g. home, clinic, workplace</i>	Reflective diaries
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	N/A
16.	Description of sample	What are the important characteristics of the sample? <i>e.g. demographic data, date</i>	N/A
Data collection			

No	Item	Guide questions/description	
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	N/A Reflective diaries
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	N/A Reflective diaries
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	N/A Reflective diaries
20.	Field notes	Were field notes made during and/or after the interview or focus group?	N/A Reflective diaries
21.	Duration	What was the duration of the interviews or focus group?	N/A Reflective diaries
22.	Data saturation	Was data saturation discussed?	N/A Reflective diaries
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	N/A Reflective diaries
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	6
25.	Description of the coding tree	Did authors provide a description of the coding tree?	No thematic analysis done on reflective diary entries
26.	Derivation of themes	Were themes identified in advance or derived from the data?	From the data
27.	Software	What software, if applicable, was used to manage the data?	None – done manually
28.	Participant checking	Did participants provide feedback on the findings?	Yes - participant researchers
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. <i>participant number</i>	Yes
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Yes
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Yes
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Brief overview

BMJ Open

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5 **qualitative exploration of reflective diaries**
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30 contributed to the interpretation of the data. RP drafted the manuscript with input from MJ
31 and SS. All authors gave approval for the final version.
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40 Data Availability: No additional data available
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Abstract

Objectives

Primary health care internationally is facing a workforce crisis with fewer junior doctors choosing General Practice (GP) as a career. In the UK, a national report on GP careers highlighted adverse influences during medical school on students' career choices. The authors explored these influences in two urban UK medical schools, both with relatively low numbers of students entering GP training.

Design

Using a phenomenological approach, the authors thematically analysed the reflective diaries of four medical students who were recruited as 'participant researchers' over a period of ten months. These students made regular reflexive notes about their experiences related to GP career perceptions in their academic and personal environments, aiming to capture both positive and negative perceptions of GP careers. The research team discussed emerging data and iteratively explored and developed themes.

Setting

Two UK medical schools

Participants

Undergraduate medical students

Results

Seven key themes were identified: the lack of visibility and physicality of GP work, the lack of aspirational GP role models, students' perceptions of a GP career as default, the performativity of student career choice with the perceptions of success linked to specialism, societal perceptions of GP careers, gender stereotyping of career choices and the student perception of life as a GP.

Conclusions

Students overwhelmingly reflected on negative cues to GP careers, particularly through their experience of the hidden curriculum. Three recommendations are made: the need for increased representation of GP role models in clinical curricula content delivery and senior leadership; ensuring GP clerkships involve an active and authentic student role with patients, enabling students to experience GP's "work" including managing complexity, uncertainty and risk. Finally, institutions need to consider students' experiences of the hidden curriculum and the effect this can have on students' perception of careers, alongside the challenges of rankings and perceived hierarchical positioning of disciplines.

Strengths and limitations of this study

- The study uses a longitudinal design with a phenomenological approach to gain an accurate sense of the medical students' experiences of the hidden curriculum related to GP careers.
- Students were themselves "participant researchers" who were involved in the analysis of the data to authentically understand and interpret their reflections.
- A limitation is the low number of participants, however this allowed us to have engaged participants able to continue data collection over a longitudinal period.
- Furthermore, the results are not necessarily generalisable as two institutions were involved who are both urban and research intensive.

Word count :4333

Introduction

The World Health Organisation regards universal Primary Care (PC) as a central pillar to improving global health¹, and tackling COVID19². Despite this growing global need for GPs (General Practitioners), recruitment into GP remains an international challenge³⁻⁵. Studies have explored the factors that may influence doctors' declining interest for careers in GP^{6,7}. These include factors such as: perceived lack of intellectual challenge, social status, medical school exposure, lack of role models, working conditions and remuneration⁵.

In the UK, the Department of Health has set a target for 50% of medical graduates to enter GP as a career⁸. However, UK medical schools are currently far from achieving this target⁹. A national report examining how medical students can be supported towards a career in GP, highlighted the role the hidden curriculum can play in shaping career choices¹⁰.

The hidden curriculum, is the implicit academic, social or cultural message experienced by students and, in the context of career choice, this can include the role of bad-mouthing ("bashing") of specialties and other "informal" comments at medical school^{11,12}. These subtle but powerful messages often influence career decisions and operate at institutional levels^{13,14}. Previous studies looking at recruitment into GP have used focus groups, interviews and student surveys^{12,15}. Although useful, these methods provide a snapshot of students' experiences and the data can suffer from recall bias. When investigating the experience of medical students, it can be the throw-away comments or non-verbal gestures, such as the subtle raising of an eyebrow, which communicate powerful messages to learners. Such

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3 communication, and certainly the context, can help to explain the lived experiences of
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5 medical students, especially in relation to decisions about GP careers.
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10 Given this gap in the literature, we have designed this study using a phenomenological
11
12 approach to answer the following questions: What are medical students' experiences of the
13
14 hidden curriculum around GP careers in UK medical schools? What other factors are
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16 affecting medical students' perceptions of GP as a career?
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Methods

Conceptual stance and study design

This was a phenomenological study using reflections on clinical practice recorded in diaries by medical students recruited as ‘participant researchers’. We used a phenomenological lens which assumes that reality is understood through an individual’s interpretation of their experience¹⁶. In the context of this study, the focus is on the students’ experiences in medical school, which includes the explicit and hidden social, cultural, and academic experiences around GP careers. However, it is important to consider how these experiences have been understood and interpreted by the individual students involved. To facilitate this conceptual approach, reflective student diaries were used; this method enables a rich understanding of experiences and has been used previously to explore sensitive areas^{17,18}.

Setting

This research was conducted in two urban UK medical schools, which were selected opportunistically, and both had low percentage of students entering GP training in national rankings⁹. It was hypothesised these students may experience more pronounced cultural practices that push students away from GP.

Recruitment

Four medical students (2 male and 2 female) from two sites were recruited as primary data collectors, and acted as “participant researchers”¹⁹. These four students, in their final two years at medical school, had expressed an interest in undertaking educational research having already noticed the effects of the hidden curricula on their own career choices. The students have no personal connections or relationships outside of the curriculum with the researchers. None had firmly decided on their career routes, however, all four students indicated they

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2
3 were *unlikely* to pursue GP careers. Given the longitudinal nature of the study, four students
4
5 were included to gather sufficient data entries over ten months to gain a sense throughout an
6
7 academic year of the medical students' experiences. The research question required
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9 participants to be able to engage over the academic year and commit to regular diary entries,
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11 therefore it was felt to be more appropriate to recruit a smaller number of students who were
12
13 confident they can commit to the study.
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19 **Data collection**

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21 Prior to starting, guidance was provided to the students regarding the process of writing a
22
23 reflective diary entry. During the study, the students made regular reflective entries, whilst
24
25 attending routine educational and clinical activities, about their experiences of how a GP
26
27 career was viewed by clinicians, faculty and peers. The pre-eminent feature of entries was
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29 that they were memorable and noteworthy for their content in relation to the research
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31 questions. The number of entries per student ranged from 7-16 entries, and the length of
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33 entries ranged from 73 words to 540 words in length.
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40 Anonymised reflective notes were captured contemporaneously, or shortly after the event to
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42 minimise the effect of recall bias. The anonymised data in the form of word-processed
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44 documents were stored on an accessible drive open only to the student researchers and
45
46 supervisors.
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51 **Data Analysis**

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56 Given the phenomenological stance of this study, it was felt that the students themselves
57
58 should analyse the data (JSJY, SCCC, SM, RS), with support and guidance provided from
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3 faculty members (RP, MJ, SS, EG, CG, SK, SP). This was felt to be the most congruous
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5 approach, as given our epistemological stance, the students' co-participation in analysis was
6
7 important, bringing their experience and reflections into the process of data interpretation and
8
9 analysis²⁰. The data was analysed using a thematic framework approach²¹. This involves the
10
11 following stages: familiarisation of the data, initial code generation, searching for themes,
12
13 and reviewing defining and naming these themes²¹. Regular data clinics were held initially on
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15 individual sites and then jointly, to clarify the nature of the emergent data and support the
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17 students during the period of data collection and to agree on the developing themes.
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24 The study received granted ethical approval from both institutions (UCL Research Ethics
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26 Committee project ID 12627/002 and Imperial College Medical Education Ethics Committee
27
28 18-79). No patient data was collected, and no data was collected in National Health Service
29
30 (NHS) settings (hospital or primary care) at either site. All data collected was fully
31
32 anonymised to protect confidentiality of those who may be involved. Students consented to
33
34 be participant observers. The academic researchers were not directly involved in the
35
36 academic assessment of these students.
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41 **Reflexive statement**

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44 The project leads from both sites were all practising GPs and involved in GP undergraduate
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46 education. Contextually, this project was developed shortly after the publication of the Wass
47
48 report¹⁰. Data clinics were conducted with both faculty and students and explicit critical
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50 reflexivity was used to question and acknowledge any potential bias or assumptions during
51
52 the study.
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Patient and public involvement

Given the focus on assessing the hidden curriculum in medical school patients and the public were not involved in the design, data collection or data analysis.

Results

Students collected data reflecting on experiences gained from campus teaching, clinical teaching (in primary and secondary care) and the external environment (such as conversations with peers and family). Where quotes are used these represent verbatim extracts of the students' reflections, not of those informants that were observed.

The key themes developed are listed in table 1 and described in detail below with key quotes and identified by participant but not by study site, student year or gender.

Summary of Themes identified
Visibility and physicality of work
Career default options
Role modelling
Specialty hierarchy
Societal perceptions of GPs
Gender stereotyping in medicine
GPs viewed through the student "lens"

Table 1: List of the key themes

Visibility and physicality of work

Students described the importance of the visibility of the work performed by doctors, and their ability to perceive its immediate rewards. They contrasted the experience in GP with acute settings. Students felt in acute settings, they were able to see the results of their actions, leading to an increased drive to learn and enjoyment.

“...perhaps this is the problem with GP... it is very difficult for people to envisage the impact they have on their patients”

Student 1

“...being in A&E [Emergency Medicine] and acute settings attracts medical students away from GP as you can have an easily visible impact on patients very quickly”

Student 1

This observed difference in the immediacy of results between the different specialties, led to the work of GPs being perceived as boring by students and faculty from other specialities:

“A consultant told us we should want to do A+E surely as it is far more exciting than GP, although GP would give us a better work-life balance. Being told that you won't get any excitement out of working as a GP doesn't make that look like a viable career.”

Student 2

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2
3 The physicality of the specialty was also identified, specifically perceptions of dynamism
4 related to clinicians' movement. Students noted in acute medical settings they were able to
5 see the physical actions of doctors standing or moving quickly; seen as actively providing
6 care. Whereas the image of GPs passively sitting at their desk or in meetings, was contrary to
7 students' perceptions of being an active care provider. Students described how in the
8 physically active healthcare environment it was easier for students to 'penetrate', in contrast
9 to students' ability to feel included sat in a GP' consulting room.
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22 *"Some of the students said that they can no longer sit still for an extended period of*
23 *time and implied that medicine is not about sitting around for the whole day (i.e. what*
24 *GPs do in the office)."*
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29 *Student 3*
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33 However, some students did describe the benefit of being actively involved with patient
34 consultations in GP and the impact this can provide for patients.
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40 *"actually in the GP attachment they saw so many patients and were able to help each*
41 *one of them come to a solution within the 15 minute consultation."*
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45 *Student 3*
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50 This perception of a lack of immediate impact, excitement and activity in GPs' work was
51 referenced in everyday conversations. This generally passive perception of GP amongst
52 students and hospital faculty feeds into the hidden curriculum of GP being seen as "boring"
53 with little active involvement or impact.
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The “default” option

Students often viewed GP as the “default” career option. Our data demonstrates two main factors that shape this perception. Firstly, students commented on the impact of being told during teaching sessions how many will become GPs, and the way in which faculty members described GP as a career, including the words, tone and insinuation used.

“We all disliked the fact that throughout our respective courses, we often had the “50% of you will become GPs” quote thrown at us during a lecture, albeit in an entirely professional manner, but this led us to feel that most of us would be forced down a career we disliked”

Student 1

Secondly, entry to GP training was perceived as having little or no competition, which itself perpetuated the idea that students would not want to enter GP training, as it went against their personal aspirations of being high achieving and competitive professionals.

“A friend commented to me they would do anything, even GP...It just struck me that they consider GP to be the proverbial bottom of the rung when it comes to clinical placements and that it could actually be some sort of punishment if you were to end up in GP .”

Student 2

Students commented on peer discussions where GP was consistently seen as a fallback or easier option if they were not successful in other specialties.

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3 *“A student told me they don't want to be doing exams and being in a hypercompetitive*
4 *environment like this all their life, they would rather just be GP. This seems to always*
5 *be the option that people revert toGeneral practice is still time and time again*
6 *seen as being the ‘easy way out’.”*
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12 *Student 4*
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16 **Role-modelling**

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19 Another recurring theme throughout the data was the description of a lack of GP role models
20 in visible teaching clinical positions at medical school.
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25 *“One of the big things that struck me was people saying I want to be like Dr X... or*
26 *such and such a lecturer. ... as most of our teachers don't come from a GP*
27 *background many students don't seem to want to follow that as a career.”*
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32 *Student 2*
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37 In addition, when GPs were involved in teaching, it was felt they were teaching “soft”
38 subjects and not “real medicine”.
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43 *“GPs teach all the softer stuff - communication, ethics and law, professionalism,*
44 *social determinants of health.”*
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48 *Student 3*
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51 **“Specialty Hierarchy”**

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54 An implicit model was perceived by students of a “specialty hierarchy”, with GP seen as
55 inferior by some hospital clinicians and subsequently, students. Our data demonstrated two
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3 main factors contributing to this “specialty hierarchy”. Firstly, badmouthing, attitudes and
4
5 stigmatisation:
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10 *“A consultant reported even if they wrote it in the letter the GP wouldn't understand.*
11 *They explained they need to keep the letter as simple as possible. This seems to be a*
12 *recurring theme that I see in clinics or amongst hospital doctors, where GPs are*
13 *spoken of in an almost derogatory manner”*
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19 *Student 4*
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24 Interestingly, there were more occurrences of more subtle and passive negative attitudes
25 towards GPs mentioned in off the cuff or throwaway comments by other faculty members,
26 who are often seen themselves as a role model for the students.
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33 *“The consultant told us that cancer markers were not useful in young women, not*
34 *being specific enough, then going on to comment that it was all too often that GPs do*
35 *the blood test without knowing what the result could mean.”*
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40 *Student 1*
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45 Secondly, lack of intellectual rigour was also described as a recurring comment across
46 students, faculty, friends and family. Students often described instances where hospital
47 doctors were using mistakes made by GPs as material for a teaching session, which
48 perpetuated the sense that GPs were intellectually inferior.
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3 *“He (hospital faculty) described a GP stopping the medication of a pregnant*
4 *woman ... being the wrong thing to do. This incident made me think that GPs were*
5 *not very skilled individuals, leading them to take the wrong decisions.”*
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10 *Student 1*
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14 Interestingly, the students not only commented on how this affected their perception of GPs,
15 but also that they did not want to be seen in the same way by their colleagues if they did go
16 into GP, even if they disagreed with the comments.
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24 *“Insinuations that they're (GPs) not very smart or with it will of course put us off*
25 *going into that field. Even if we know it isn't true, who wants to be looked at or*
26 *considered by other doctors as not being smart?”*
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31 *Student 4*
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35 It is important to note that on the rare occasions when the opposite was observed, such as
36 consultants commenting positively about GPs and the respect they have for their GP
37 colleagues, this had a significant impact on the students' perceptions.
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45 *“I've only heard a consultant say once that GPs get a lot of the brunt of the*
46 *inefficiencies in our healthcare systems - it can't be easy, we don't give them enough*
47 *credit for it.”*
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52 *Student 4*
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56 In addition, there appeared to be an accepted culture of medical school that specialisation
57 equates to success. The data showed how, during social interactions, students described how
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1
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3 they perceived GP as being “easier” and less superior due to the lack of “specialist”
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5 knowledge.
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10 *“the students were discussing that GPs cannot make significant changes and are*
11 *always required to refer constantly. Therefore, during the discussion, I was given the*
12 *impression that having in-depth knowledge in one specialty is superior to knowing a*
13 *bit of everything; because no matter which specialty, you would still have the*
14 *knowledge of general medicine”*
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21 *Student 3*
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25 **Societal perceptions of GPs**

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27 Societal perception of GPs also played a role. Several observations reflected how there was
28 an ingrained message across interactions with non-medical friends, family and society more
29 generally that being a GP was less successful than other specialties. One of the students
30 described how a non-medical friend made a comment which was casually laughed off:
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39 *“I got asked what if you don't do well at medical school, or aren't very bright and do*
40 *badly in [exams] to which one of the non-medics replied that you fail and become a*
41 *GP. Everyone laughed at the comment and it was brushed aside.”*
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46 *Student 2*
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51 These wider societal views may shape medical students' views about GP even before they
52 enter medical school. One of the students commented on their experience when helping
53 during a university open day:
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3 *“One of the common questions I got asked was whether introducing more GP into the*
4 *curriculum could dilute the scientific nature of the course.”*

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7 *Student 2*

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12 The students often comment on the impact of the views of friends and family, who often
13 include key role models for the students, in shaping their view of GP.

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18 *“the experiences of medical students’ friends and families matter a lot and these*
19 *opinions and stories (positive/negative) can largely influence students’ perspectives.”*

20
21
22 *Student 3*

23 24 25 26 27 28 29 30 **Gender stereotypes in general practice**

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32 The data also demonstrates a persistent message during medical school that GP is seen as a
33 specialty for women and ideal for those wanting families.

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38 *“Women are told directly or indirectly that they’ll probably “end up” a GP if they*
39 *want children and a family”*

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41
42 *Student 3*

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47
48 This feminised image of GP was described consistently in the data from comments by
49 students in social settings, to faculty discussions and opinions from families. Often the
50 comments were subtle, or made in the context of a different discussion, but the hidden
51 messages remained consistent.
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3 *“a male consultant commented as we get more women coming into the NHS they will*
4 *want to take up the part time roles of General Practice”*

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7 *Student 1*

10 11 12 13 14 **GPs viewed through the student lens**

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19 There were three key areas of how GP careers were viewed through medical students' eyes:
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21 work-life balance, the isolation of working as a GP and the role GPs have with their patients.
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26 Students consistently perceived GP as having a better work-life balance than other
27
28 specialties, describing shorter training time and more flexible working hours. These views
29
30 often overshadowed any other aspect of the discipline, often being the most significant factor
31
32 when students were discussing choosing a career as a GP.
33
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36
37 *“A specialist doctor commented about the benefits of [GP] – including high pay and*
38 *good lifestyle balance”*

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41 *Student 3*

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46 Students perceived GP as a patient-focused specialty, but also as lonely and isolating, with
47
48 individual GPs interacting only with patients, rather than as part of a team, in contrast with
49
50 what they have experienced in their hospital placements where they experience team ward
51
52 rounds and more social team interactions.
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3 *“I now feel like there is a relative isolation of a GP practice. Whilst you may not be*
4 *working with the people all the time in the hospital, the ability to meet for lunch/grab*
5 *a coffee is much greater than in General Practice”*
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10 *Student 1*
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14 There were conflicting views from students about the desirability of the GP’s role more
15 generally. Medical students seem to have some appreciation for the role that GPs play in
16 patient care, however, students seemed to be divided whether this was a desirable feature.
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24 *“...my experience in medical education has demonstrated to me that GPs perform a*
25 *vital role in coordinating patients’ care, avoiding A&E admission”*
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28 *Student 1*
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Discussion and Future Directions

This study addressed a gap in the literature, by providing the perceptions of clinical medical students towards a possible career in GP. The conceptual stance and methodological approach used captures a candid and authentic account of medical students' experiences, enabling us to enhance our understanding of the potent hidden curriculum^{13,22,23}.

The themes identified can broadly be categorised into three areas of influences: experiences during clerkships, experiences during medical school, and influences from family and society.

Students commented on the lack of visible work in community clerkships. This can be interpreted as a lack of opportunity for the students to appreciate the 'active' cognitive processing required by GPs as they manage complex, multi-morbid patients, which include weighing up risks and benefits and tolerating a high degree of clinical uncertainty. In contrast, the more explicit experience of managing a cardiac arrest in hospital, allows the students to obviously see the actions and immediate impact of interventions. In addition, the role of the students during their clerkships needs to be examined, the data suggests students perceive GP clerkships as being passive and boring. However, when students were able to have responsibility of seeing patients and understanding the cognitive challenges, students commented on how they gained an appreciation and respect for the discipline. This finding is important, as although previous studies have demonstrated a link between undergraduate GP exposure and career choice, the quality of such placements was found to be a key factor, with a call for more longitudinal GP placements and meaningful student roles⁶.

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2
3 The hidden curriculum throughout medical school was pervasive in the data. Interestingly, on
4 a number of occasions students reflected on how they disagreed with the negative comments
5 we report, but the fear of being viewed in a negative way if they were to reveal an intention to
6 pursue a GP career, pushed them even further from considering GP. The influence of such
7 negative comments and the impact on career choice is aligned to similar studies in the
8 literature^{24,25}.

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19 Finally, the influence for students of their family and society was also strong in the data. The
20 perception of GP as being less prestigious than other specialties often reinforced this career
21 hidden curriculum.

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28 The concept of the hidden curriculum has been challenged in literature, with critique around
29 how “hidden” this curriculum may now be and how this metaphor may itself be a barrier to
30 change²⁶, as well as the need to provide a detailed description of what is meant by the term
31 “hidden curriculum” and concrete recommendations of how it can be addressed¹⁴. We have
32 provided a conceptual description of the “hidden curriculum” in the context of this study in
33 the methodology. In addition, what is described in this study is a systemic experience of
34 students which influence their perceptions of GP as a career. In the academic education
35 community, this phenomenon may no longer be “hidden”, however for our students, exposure
36 to these attitudes remain endemic.

Strengths and Limitations

The phenomenological and longitudinal approach to this study, using reflective diary entries and participant researchers are key strengths to this study. The longitudinal design enabled students to showcase a variety of different interactions to obtain their experiences of the hidden curriculum. Involving the students in the analysis of the data was vital to understand and interpret the reflections.

There are limitations to this study. The institutions involved are research intensive and so the findings are not generalisable to other universities. Participant researchers themselves may share or collude in institutional norms and may not be independent or external enough to critically evaluate the culture. We acknowledge the low number of participants researchers in the study, however, this allowed us to have engaged participants able to continue data collection regularly over a longer period. The research team included both students and faculty members, who were keen to understand how students' views of GP careers are shaped.

We also acknowledge that the experiences during medical school are one of many that together will influence decision on careers⁷. However, there is little research exploring the influence of the hidden curriculum using such a novel methodology to understand the students' experiences.

Recommendations for practice

This study highlights three key implications relevant for institutions in tackling the hidden curriculum experienced by students around GP careers.

Firstly, there is a need for GP role-models for students. This is not simply increasing the numbers of GPs working in educational institutions; but to widen the teaching of GPs in the undergraduate setting beyond traditional areas in the curriculum. Co-teaching with GPs, specialists, scientists and other members of the multi-disciplinary team teaching together has been shown to be an effective tool in breaking down professional barriers, and role modelling mutual respect²⁷.

Secondly, there is a need to ensure that community clerkships based in primary care allow students to take an active role with patient management. The literature on this is extensive and demonstrates the need for students to work authentically, seeing patients who have a need to be seen by a healthcare professional, rather than patients deemed “suitable for students”. By doing so, students understand the knowledge, challenges and skills required in primary care around uncertainty, risk, and patient empowerment. Many models have been developed to help educators implement such a design, including the use of longitudinal placements²⁸. GPs must allow students to experience and understand the cognitive processes they are working through when seeing patients with clinical complexity, medical uncertainty and ethical challenges by making the implicit explicit.

Finally, there is an imperative need for educators to tackle the pervasive impact of the hidden curriculum around careers. There is a need for all faculty to be increasingly accountable and

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2
3 aware of the impact of their comments, actions and the culture created which students
4
5 experience. Several studies have demonstrated the impact of the phenomena of specialty
6
7 “bashing” on specialty career choice and student morale^{24,29,30}. A zero-tolerance attitude from
8
9 senior faculty towards such behaviour; alongside a transparent, trusted and fair reporting
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11 system for students and trainees who witness unprofessional comments, behaviour or
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13 attitudes, could help to address this issue.
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22 **Implications for research**

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26 There is a need to explore how these aspects of the hidden curriculum can be addressed
27
28 within medical schools. Studies have suggested how explicit teaching on the hidden
29
30 curriculum can be a useful tool to empower student themselves to critique and challenge their
31
32 own experiences³¹. The recommendations outlined above including more prominent GP
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34 educator role models, and higher quality longitudinal GP placements with students taking on
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36 meaningful roles, should be piloted and robustly evaluated to understand their effect on
37
38 students’ perceptions of GP careers.
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45 In addition, there is a need for studies to explore how students’ experiences before university
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47 as well as external influences, may influence their perceptions of GP careers. The impact of
48
49 competitive medical selection on the perception of GP as a career also needs to be explored,
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51 as there may be links between certain selection processes and career intentions³². Crucially,
52
53 there is a need to discuss these tensions and issues with our students, so they can critically
54
55 evaluate and challenge these cultural norms with faculty, patients and more broadly, society.
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Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

No	Item	Guide questions/description	
Domain 1: Research team and reflexivity			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	N/A as thematic analysis of reflective diaries
2.	Credentials	What were the researcher's credentials? <i>E.g. PhD, MD</i>	As stated in the author list
3.	Occupation	What was their occupation at the time of the study?	As stated in the author list
4.	Gender	Was the researcher male or female?	As stated in the author list
5.	Experience and training	What experience or training did the researcher have?	As stated in the author list
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Yes, participant researchers
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? <i>e.g. personal goals, reasons for doing the research</i>	Participant researchers
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? <i>e.g. Bias, assumptions, reasons and interests in the research topic</i>	N/A
Domain 2: study design			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? <i>e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</i>	Phenomenology
Participant selection			
10.	Sampling	How were participants selected? <i>e.g. purposive, convenience, consecutive, snowball</i>	Purposive – as participant researchers
11.	Method of approach	How were participants approached? <i>e.g. face-to-face, telephone, mail, email</i>	N/A
12.	Sample size	How many participants were in the study?	N/A – participant researchers
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	N/A – participant researchers
Setting			
14.	Setting of data collection	Where was the data collected? <i>e.g. home, clinic, workplace</i>	Reflective diaries
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	N/A
16.	Description of sample	What are the important characteristics of the sample? <i>e.g. demographic data, date</i>	N/A
Data collection			

No	Item	Guide questions/description	
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	N/A Reflective diaries
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	N/A Reflective diaries
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	N/A Reflective diaries
20.	Field notes	Were field notes made during and/or after the interview or focus group?	N/A Reflective diaries
21.	Duration	What was the duration of the interviews or focus group?	N/A Reflective diaries
22.	Data saturation	Was data saturation discussed?	N/A Reflective diaries
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	N/A Reflective diaries
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	6
25.	Description of the coding tree	Did authors provide a description of the coding tree?	No thematic analysis done on reflective diary entries
26.	Derivation of themes	Were themes identified in advance or derived from the data?	From the data
27.	Software	What software, if applicable, was used to manage the data?	None – done manually
28.	Participant checking	Did participants provide feedback on the findings?	Yes - participant researchers
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. <i>participant number</i>	Yes
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Yes
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Yes
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Brief overview