Access and Emergence: A Case Study of a Working-Class Journey into Studying Medicine

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Abstract

Analysis of data on school leavers in Scotland points towards considerable inequality in access to higher education. This is highlighted in terms of participation in higher education by young people from lower-income households or identifying as first in their families to consider going to university. The situation is more acute in terms of access to the most competitive courses leading to careers in medicine, veterinary medicine, dentistry and law. This paper draws on data from an ongoing research and development project in the area of mentoring to present a case study of a young woman progressing an application to study medicine. Drawing on the concept of Academic Capital Formation it illuminates the ways in which institutional practices advance or impede access to higher education and particularly, to those courses which facilitate entry into high status professional occupations. The findings in this research problematise current thinking about how to widen participation in higher education and the most competitive professions.

Keywords

Introduction

Recent research has examined the educational backgrounds of those at the top of the UK's professions within fields such as medicine, law and journalism (Sutton Trust, 2016a). This research has uncovered that those in the most

prestigious occupations continue to be drawn from a narrow range of social backgrounds. The findings uncovered that while approximately 7 per cent of the population are educated privately: 'nearly two thirds (61%) of top doctors were educated at independent schools, nearly one quarter at grammar schools (22%) and the remainder (16%) comprehensives' (Sutton Trust, 2016, p.19). In 2015, the Social Mobility and Child Poverty Commission (SMCPC) argued that the UK faced an existential crisis with regard to its failure to address access to the professions: 'There is much talk of less elitism and more equality, of less poverty and more mobility. But willing the ends without the means is a recipe for more division, not less' (SMCPC, 2015, *Introduction* p.x). With regard to medical degrees they noted the dominance of students from managerial and professional backgrounds who were accepted to medical and dental undergraduate degree programmes, and concluded that the profession 'has a long way to go when it comes to making access fairer, diversifying its workforce and raising social mobility...[and that] medicine has made far too little progress and shown far too little interest in the issue of fair access' (SMCPC, 2012, p.3). These findings must also be viewed in the context of research on contextualised admissions which asserts that Scottish students with three A grades at Higher and attending schools with below-average levels of performance are likely to do better than students with similar grades from above-average performing schools (Lasselle, McDougall-Bagnall & Smith, 2014).

Statistics published by Steven et al., (2016) suggest that in Scotland patterns of inequality in access to medicine are more pronounced than in England. Figures indicate that 54 per cent of Scottish applicants with an accepted offer to medical school (between 2009- 2012) were from the wealthiest postcodes, compared to 38 per cent of English students. These warnings along with growing dissatisfaction with the progress in securing equality in terms of access to higher education in Scotland (see Sutton Trust, 2016b) prompted the announcement by the Scottish First Minister to invest £23m to increase the number of medical school places and widen access to medical schools with a new entry level programme for those from deprived backgrounds (Sturgeon, 2016). The policy focus on initiatives to widen access to medicine are undoubtedly welcome. However, there remains very little empirical research particularly in Scotland, and across the UK to understand how young people who are first in their families to enter university, or are from lower income households, actually acquire the necessary economic, social and cultural capital in order to progress an application to higher education.

How is Widening Participation in Higher Education Currently Understood?

The research literature has questioned the effectiveness of 'addressing barriers' to participation in higher education that are prominent in widening participation (WP) policy texts (Gorard et al., 2007; Fuller, Heath and Johnston, 2011; Burke, 2012). The question of whether the existence of barriers (e.g. funding and financial support, accessibility and availability of childcare) can actively dissuade prospective students from applying to university and their subsequent removal leads to increased participation among non-traditional entrants, has been problematised for obscuring deeply structural features of social inequality.

A substantial body of research provides a more complex consideration of the personal, social and economic dimensions of potential and actual participation and non-participation. Prominent within these studies is the concept of 'capital', which has evolved over time to encompass different emphasis. Social capital theory has evolved in different strands with the ideas of Bourdieu, Putnam, and Coleman being influential. Defined as '...broadly, social networks, the reciprocities that arise from them, and the value of these for achieving mutual goals' (Schuller, Baron, and Field, 2000) social capital theory has been drawn from extensively to help explain inequality in education. Coleman (1994) developed a focus on the role of social capital in education inequality and identified trust and information flow as key components that existed within different communities. His analysis established social capital as the resources that could be realised within families and communities for the educational benefit and advancement of children and young people. The work of Bourdieu has advanced understanding of cultural capital, social capital and perhaps to a lesser extent economic capital as key concepts in the maintenance of social class-based inequality in education. Bourdieu likened the accumulation of embodied cultural capital as a similar process to attaining an athletic physique. As such, it is something that takes cultivation by the individual and requires a significant period of time to be nurtured, accumulated and understood. Central to Bourdieu's analysis are the ways in which each family is able to transmit to their children '...a certain *cultural capital* and a certain *ethos'* (Bourdieu, 1976, p.110). Through the concepts of field and habitus Bourdieu presented a theory of how the skills and dispositions of the individual interacted with their different forms of capital to advance or impede their social mobility in different contexts. For Bourdieu this process is crucial in enabling middle -class families to align with dominant cultural values and, equally for working- class families to become distanced or alienated.

Much research within educational sociology has drawn on Bourdieu's ideas to show how the interaction of social, cultural and economic capitals enables the reproduction of social class inequality. Reay, David, and Ball (2005) for instance, found that young people's HE choices were constrained by a lack of qualifications, geographical restrictions and the financial cost. However, they also noted further emotional constraints which they argue manifest in the feeling of not "fitting in" with the culture and people at more elite universities. Drawing on Bourdieu's concept of habitus, they propose that a tension between the "familial habitus" and "institutional habitus" meant that the young people had an intuitive sense of their "place in the world", and saw university as not "for people like us" (Bourdieu and Passeron, 1990, pp. 64-65 (see also Reay, 1998)). Similarly in a study of access to elite law and accountancy firms Ashley, L; Duberley, J. *et al.* (2015) identified the capacity of applicants to '*...present a "polished" appearance, display strong communication and debating skills, and act in a confident manner at interview*' (p.15). A particularly interesting finding from earlier research by Ashley, L., & Empson, L. (2013) was that discrimination by law firms in this way was not the result of an implicit, embedded structural issue but rather a conscious project to further enhance their status (p.238). This is an important finding as it challenges both our understanding of Bourdieu's ideas and the ways in which discrimination occurs at a local rather than societal level.

In more recent work, Sartania, Alldridge & Ray (2021) uncovered the ways in which the different forms of capital helped to explain access to and participation in medical school. In their analysis social capital was crucial as it permitted access to 'privileged knowledge of the system'. Economic capital was similarly important and manifest in, for example, pupil ability to access private schooling or tutoring. Interesting in this study was the finding that the mechanisms by which cultural capital influenced student experience were 'difficult to ascertain' in relation to the more conspicuous roles played by social and economic capital. Friedman & Laurison (2019) also draw attention to the ways in which the inherited benefits of cultural capital underpinned career advancement but were so implicit as to be often misrecognised as innate ability.

The processes by which cultural capital can exert influence are in some ways explored by Abelev (2009) and the concept of 'interactional deficit'. Abelev argues that as a result of their habitus, socially disadvantaged young people inherit what is effectively an interactional deficit which complicates and frustrates their interaction with schools and other powerful educational institutions. Ultimately this restricts their opportunities and, '...as a result,

children outside of the middle-class do not gain access to important knowledge and resources necessary for maneuvering within the middle- class' (p.134). The creation and maintenance of this interactional deficit has been theorised by research in the US by St John, Hu and Fisher (2011) who advance a theory of 'academic capital formation' (ACF).

Drawing on Bourdieu's concepts of human, social and cultural capital theory, ACF is defined as the…'social processes that allow young people and families to build knowledge of educational and career options and support students' navigation through educational systems and professional organisations' (p.1). In their research, which focuses on access to college education, the authors identify six core constructs in their formulation of ACF. These include: 'easing concerns about costs, supportive networks in schools and communities, navigation of systems, trustworthy information, college knowledge, and family uplift' (St. John, Hu, and Fisher, 2011, p.46). ACF emphasises the role of social networks and trust as crucial to facilitating access to the knowledge and support necessary for a successful application to college. In this way, ACF potentially offers a more focused, pragmatic framework for understanding inequality in access to higher education.

What emerges from the research presented above as critical is the way in which young people from less advantaged backgrounds make sense of the process of university admission. It is a new and diverse landscape, to which they are strangers. Important also in this process is recognising the institutional reactions to this situation in terms of how institutions (schools, universities and third sector organisations) understand young people from lower socio-economic backgrounds and how they choose to support them. Rose, Tikly and Washbrook (2019) explored how schools play a critical mediating role in supporting students in their decision-making. Their research found that, particularly at 'crunch' points in students' decision-making processes, students needed ongoing support through processes of their 'choice of A-levels; selecting degree subject; receiving predicted grades; UCAS applications (both content and timing in relation to grades); and receiving offers from universities' (pp.868-9). They suggest that a focus on the role that schools play would take greater cognisance of the practices of teachers and other staff that can make a great deal of difference to the outcome of learners. Drawing on research with English schools Abrahams (2018) argues that schools in more advantaged areas are focused on the cultivation of particular form of middle-class pupils, one who is carefully positioned, adept at the rules of the game and able to stand out in the competition for university places (p.1157). These rules of the game are particularly important in gaining access to the more competitive courses

at university where more profession-specific forms of cultural capital (see Jonsson, et al. 2009) may be required.

Examining the institutional context, Cleland et al. (2015) highlight that there is a lack of consistency across medical schools in relation to implementing widening participation agendas. This is illustrated in the ways that some medical schools are more explicit in their use of contextual data in terms of assessing achievements of applicants in the context of the opportunities available to them according to education and socio-economic background. Cleland et al., suggest that the attitude towards widening participation of the person in the lead admission's role appears critical to how widening participation policy is enacted as their research identifies a possible tension between 'the political goal of WP [widening participation] and medical education's goal of producing the best doctors' (Cleland et al., 2015, p.32). In other research, a lack of flexibility in admissions processes, which do little to engage with the lived realities of these candidates, is apparent. Kezar (2011) affirms that:

> Administrators and leaders need to take responsibility for changing poli-
> cies, practices, cultural norms and power positions that shape the system
> in which low income students operate and try to be successful. We can
> no longer be satisfied with allowing the students to either fight with or
> assimilate to the system.
>   p.10

There is a tension then between research which draws heavily from the work of Bourdieu to help explain educational inequality and that which potentially offers more focused exploration and understanding of the ways in which specific institutional practice is discriminatory. This paper draws from on an ongoing research project[1] that continues to provide a more detailed understanding of the experience of applying to university by young people (identified as first in their families to enter university, or from lower- income households) who are seeking access to some of the more competitive courses in university. In doing so, it draws on social and cultural capital theory and the ways in which these were represented in the theory of academic capital formation as formulated by St John et al., (2011). Drawing on critical approaches to research (Atkins and Duckworth, 2019; St John, 2013), the study sought to illuminate the social processes that contribute to inequality in university admissions.

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[1] The Intergenerational Mentoring Network is a research and development project
     that has received funding from the Big Lottery for 3 years (2014–2017) see www.inter
     generationalmentoring.com.

This represents a shift in focus from conceptualising and analysing structural barriers and towards identifying ways in which gaps in current widening participation practice can be addressed. This work was framed by two research questions:
–   What is the lived experience of young people in the process of identifying a future career and applying to university?
–   In what ways can current theoretical ideas be drawn on to illuminate and help improve these experiences and reduce inequality?

Methodology

This article draws on data generated from an ongoing research and development project which recruits retired professionals as mentors for young people from working-class and lower-income households who are considering going to university. Mentors, drawn from largely middle-class professional retirees, were a means through which young people could gain access to the different forms of social and cultural capital that are implicitly essential for progression into higher education (Wilson *et al.,* 2014).

The research presented in this paper was conducted in a Scottish secondary school between 2012 and 2015. The school catchment is described as having a high level of deprivation (composed of communities that are predominantly SIMD levels 1 and 2). Twenty-five pupils, from a year group cohort of a hundred and fifty pupils were identified by the school headteacher and head of year, that were borderline and above in terms of being likely to achieve 5+Highers (standard for entry to university). The primary method of data collection involved developing in depth case studies of ten of these pupils who were being mentored and who were applying to the more competitive courses in Higher Education. Case studies consisted of a number of sources of data. These included five semi-structured interviews with pupils across their S5 and S6 year and a written account from pupils as they reflected on their experience of entering higher education. Data was also sourced from reflective notes from mentors. In these reflections mentors were asked to describe their experiences of the sessions recounting how they felt the session had progressed and indicating any issues/difficulties arising. Mentors provided particularly detailed notes from each of their sessions highlighting progress made, the challenges encountered and actions taken to address these. These were emailed to the research team after each of their mentoring sessions. Semi-structured interviews with mentors were also conducted at key stages. These lasted on average between 40-60mins and were recorded and transcribed for analysis.

Participant observation was also carried out and involved conversations between researchers and the headteacher, head of year, mentors and pupils. Notes were made on the observations at the time and on completion of the different observation periods.

Thematic analysis was conducted on interviews and reflective notes which involved a process of close reading of each transcript; initial descriptive coding of sections of the text followed by more thematic coding. The transcripts were shared across the research team with different members analysing the same textual data. Emergent findings were then shared between the team and consensus reached as to the main findings and their representation in the report. The project was conducted according to ethical guidelines of the host institution and the British Educational Research Association.

This paper presents an in-depth case study of 'Hannah' (pseudonym) and her experience of orientating towards and applying to study medicine. While Hannah was the highest performing pupil in her year group, she had limited knowledge of higher education and how to successfully navigate processes of admission. Hannah's case study draws heavily from not only Hannah's experience but also the reflections of her mentor 'Gillian' (pseudonym).

Hannah – A Case Study

Orientating Towards Medicine

Hannah grew up in an area recognised as one of the poorest in the city. In an extract from her written account, she describes her initial thoughts on studying and deciding to stay on at school:

> Growing up in an area where there is a lot of drug misuse and a very high crime rate, you won't be surprised that I never really had any university or career aspirations. My brother attended the same school and left midway through with very poor exam results. He has been unemployed since. No-one in my family had ever finished high school, so none of them expected me to do so
>> Extract from HANNAH'S written account

Hannah described that the idea of going to university became a real possibility following her academic achievements at the end of S3 when she sat her Standard Grade maths a year early and received the top grade. It was at this point that Hannah realised that there was every possibility of going to university, as with her peer group, she became focused on some of the more competitive

professions. Hannah began researching medical and health-related courses focusing exclusively on those available in her home city as she 'hadn't really thought about leaving home' (extract from Hannah's written account). In the previous 10 years, no pupil had left Hannah's school to study medicine. From reading the prospectus, she decided that work experience was something that she would need in order to be able to progress an application to medicine. She contacted her local GP to ask if there were any opportunities during her school summer holiday. Unable to provide her with a placement, her GP advised her to contact other surgeries. Hannah emailed over 50 doctor's surgeries requesting an opportunity for work experience. She received no positive replies.

Working with a Mentor – Learning About Medicine

In October 2012, Hannah was matched with Gillian a retired physician who was the first person among her family to study at university. Gillian entered the mentoring relationship understanding the challenges of progressing up 'the so-called class escalator and that pursuing a professional career is multi-layered' (notes from Mentor reflective account, May 2016). She identified that the pupils she mentored tended to believe that the practice of medicine was as represented in popular culture. Hannah too was an 'avid viewer of emergency programmes on TV' (mentor notes, October 2012). Gillian recognised that Hannah needed a more nuanced understanding of the profession, partly as she would need to demonstrate this in her application, but also to support her own decision-making with regard to choosing to pursue a place in medicine or another suitable university degree course.

Gillian supported Hannah in her learning about medicine but also introduced discussion about opportunities in careers allied to healthcare. To support this activity, she brought copies of the British Medical Journal (BMJ) and broadsheet newspapers to each mentoring session (which were not available in Hannah's local newsagents). Time was spent browsing publications and finding articles of interest that were used to facilitate topical conversations on health-related subjects and general knowledge. As this work progressed, Gillian recognised that Hannah needed to achieve a more critical professional stance and understanding of both the medical profession and the world around her if she was to successfully demonstrate her suitability to study medicine. She encouraged Hannah to read articles, to listen to programmes on Radio 4 as she travelled to her part-time job and dance classes and invited her to attend a number of seminars hosted by the Royal College of Physicians and Surgeons. Gillian recognised that as well as engaging in the content of these symposiums, Hannah would also benefit from an awareness of how career paths were structured by this professional body. These visits further served to

provide an opportunity to visit an elite institutional environment that Hannah had never before encountered and which Gillian felt, she could potentially find intimidating. Hannah was also personally introduced to her mentor's contacts within the profession and from these introductions a number of work experience opportunities arose of which Hannah made use.

Negotiating Academic Challenges

Hannah faced a number of academic challenges which required attention. In progressing an application to medicine, Hannah's headteacher recognised that achieving five Highers, all at grade A and accomplished in one sitting could be problematic.[2] Particularly if Hannah took her weakest subject, English, in S5. The headteacher contacted medical school admission teams to find out if Hannah would be considered for an application to medicine if she sat her English Higher exam in the following year, S6. This resulted in Hannah taking Higher French instead of English in her S5 year, a subject in which she had more chance of achieving an A grade. Gillian also engaged fully with Hannah's academic progress. She too recognised that Hannah's competence in English language could present an obstacle to her being considered for medicine. She supported Hannah by co-studying the course set works and engaging her in reading poetry. Gillian also introduced Hannah to personal friends that could provide tutoring support. She secured Hannah tutoring for Maths, Chemistry and conversational French. At the end of June 2013, Hannah received her Higher exam results and attained AAAAB. This was just short of the standard 5 As required for medicine. However her identity as a 'widening participation' student on a local outreach programme entitled her to a potential grade compensation from B to A.

Next Steps – Progressing an Application to Medical School

For entry to medicine in Scotland, Hannah was required to meet the minimum requirements of AAAAA or AAAAB (with widening participation scheme grade allowance) in one sitting in her S5 (5th year of secondary school) and attain good Advanced Higher results in the following year, S6. In addition, she was required to attain a satisfactory score in the UKCAT (now UCAT) aptitude test. Gillian immediately began helping Hannah prepare for the UKCAT. Having fallen just short of achieving 5As, they recognised that Hannah needed a good UKCAT score in order to satisfy medical school entrance requirements. In local

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2   Scottish students complete their Higher examinations at the end of their 5th year at secondary school. They usually then apply to university in the autumn of their 6th year prior to their Advanced Higher exams.

private schools in Hannah's city, pupils have access to UKCAT practice as part of their curriculum in senior school. Hannah however remained optimistic that her participation in the outreach programme would provide her with the grade uplift she needed. She was however concerned about her potential to score highly enough in the UKCAT test:

> This test is not only very difficult but it is very expensive. I didn't know of its existence before I began looking at the application process and I hadn't spoken to anyone who had ever sat it. With the online courses costing >£300, there was no way I could afford one
>> Extract from HANNAH'S written account

Gillian organised a mock UKCAT test, provided paper copies of the test, marked them and provided Hannah with detailed feedback. Falling just short of both the 5As required by some medical schools, Hannah achieved a UKCAT score just below the threshold for acceptance that year.[3] She contacted University 1 regarding progressing her application. Following this interaction, the data suggests that Hannah needed encouragement to apply to medicine:

> She had been upset by a comment from some unnamed individual in [university 1] who on the phone had advised her not to bother applying for medicine – understand the headteacher has taken this further with [Council Director of Education].
>> Mentor notes: October 2013

Negotaiting these academic challenges created tensions in Hannah's personal life. Her family had expectations that she would move into employment and contribute to the family income. To balance this, Hannah worked in various part-time jobs throughout her senior school years. She was also committed to dance classes which she attended four times a week and danced competitively. In pursuing her interest in medicine Hannah had to make choices about what to prioritise.

As the pressures mounted, Gillian suggested that Hannah ask for some time off from her job until after her exams were over 'since she finds it too exhausting working 20 hours at the weekend' (extract from mentor notes October 2013).

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3   This was because the entry adjustment granted through the outreach scheme could not accommodate both a grade adjustment and the 10% uplift on her UKCAT score that she needed in order to be in contention for a place.

In her sixth year, Hannah attended a local university hub[4] to study for her two Advanced Highers. She studied for English Higher at school but was continually frustrated at clashes in timetables (which meant she missed English classes) and the travel involved in studying at different places while maintaining a part-time job.

Whilst waiting to hear about the progress of her applications, Hannah attended two separate interview preparation sessions run by Universities 1 and 3. Aware that Hannah might feel intimidated at these events, Gillian and her husband supported her by organising a mock interview to help Hannah experience answering questions under pressure. Hannah received an invitation to attend for interview at University 2 but received three other rejections. She received an unconditional offer to study pharmacology at University 1.

TABLE 1   An overview of the applications Hannah made through UCAS in two consecutive years

Application 2013-2014	Scottish University 1	Scottish University 1	Scottish University 2	Scottish University 3	Scottish University 4
Hannah's 6th year at school	Medicine – rejected	Pharmacology – offered unconditional place	Medicine – invited for interview – rejected	Medicine – rejected	Medicine – rejected
Application 2014 – 2015 After a gap year	Scottish University 2 Medicine – invited for interview – rejected. (Later accepted)	Scottish University 3 Medicine – invited for interview – rejected	Scottish University 4 Medicine – rejected	English University pre-med course - invited for interview, rejected and put on waiting list	Scottish University 1 interrelated masters chemistry programme – offered unconditional place

4 Hannah attended the first cohort of S6 pupils to undertake Advanced Highers in a Scottish University teaching hub. In partnership with the City Council, the hub offered Advanced Higher courses to pupils attending schools in disadvantaged areas in which offering an Advanced Higher to small numbers of pupils was considered non-viable.

In experiencing the actual interview itself, and the wait that followed, Hannah's account highlights that she felt her inadequacy during the interview process was exposed:

> Everyone seemed so prepared with their notes and most turned up with their entire extended families. I had never been in such a tense environment. I knew after the third interview, it was not going well. I was being asked direct questions about a career in medicine, different specialities and the GMC; I felt embarrassed that I didn't know a lot of this, as it was seen as 'general knowledge'
>
> Extract from HANNAH'S written account

Hannah initially intended to accept the offer to study Pharmacology at University 1. However, following her exam results in late June 2014: an A in Advanced Higher Chemistry; a distinction for her Science Baccalaureate and a B for Higher English she decided not to give-up and decided to reapply for medicine. The decision at this stage to keep trying for medicine was a difficult one for Hannah and one that went against the advice of her family, friends and even her mentor who was concerned about the toll of the process on her overall well-being. Hannah contacted the four Universities and asked for feedback and advice on reapplying. Admissions staff in University 2 told her that she needed to improve her academic score and advised that she take more Highers or Advanced Highers. Hannah also felt that more work experience spread over a longer period, would increase her chances of success. Having taken part in a school trip to Malawi at the end of S6, Hannah was interested in returning to do some voluntary work in Africa in a health-related field. She applied for, and received an acceptance onto a health- related project in Africa. Hannah felt that these experiences would add value to future applications to study medicine.

Hannah had to further negotiate how she could increase her academic score. She researched different options and confirmed with Universities 2 and 3 that a Certificate of Higher Education in Psychology, and Health and Social Care run by the Open University beginning in January 2015 would be sufficient. Whilst completing work experience in Africa, Hannah received three invitations for interview from universities 2, 3 an interview for a Pre-Med course in England, and one rejection. Returning from Africa, Hannah fitted in full-time work in a fast-food restaurant around her Open University tutorials and study in the library after work.

In preparation for her next set of interviews, Gillian organised for Hannah to receive some coaching from another mentor who was closely linked to a

university outreach programme and could offer more detailed pointers. Hannah described spending 'a lot of time reading medical journals and health news before my interviews' (extract from Hannah's written account). With this added preparation, Hannah felt more confident and prepared for her second round of interviews. She described however that she 'went through the same wait as the year before and ended up with the same result; another full set of rejections and was devastated'. Frustrated at this response, Hannah emailed admissions teams at Universities 2 and 3 asking for feedback. She reported '..more or less the same response as the previous year. I was told that I had performed very well in the interviews' (extract from Hannah's written account).

In asking for advice on what she should do next, admissions staff at University 2 again told Hannah that she needed to increase her academic score. Hannah queried whether her Open University course had been taken into consideration, highlighting that she had undertaken this course of study on the advice of admissions staff. Acknowledging this had been overlooked University 2 then offered Hannah a provisional place at medical school on the further condition that she pass her Open University course with an average score of 70+% in the assessed work. On track to achieve this, Hannah accepted their offer. She was then provided with temporary registration on condition that she achieve 70+% in her final Open University exams which took place 10 days after the start of her first academic term with results available at the end of October.

Importantly, the account highlights that throughout the whole mentoring process there was nothing that suggested to Gillian (an experienced medical practitioner with a history of supporting medical school graduates and junior doctors), that Hannah was unsuitable for a career in medicine. It is only when the rejection process began to impact on Hannah's general well-being that Gillian started to feel that the applied science route may be preferable. Though herself from a disadvantaged background, Gillian as senior medical practitioner had the necessary social and cultural capital to recognise and nurture Hannah's potential and to craft her presentation as a suitable candidate for medical school.

Discussion

In making sense of Hannah's experience, it is difficult not to concur with the theoretical ideas presented above. Abelev's analysis of 'interactional deficits' and Reay, David and Ball's (2005) presentation of the distance between 'familial habitus' and 'institutional habitus' may make analysis of Hannah's

experience seem straightforward. However, at no point did Hannah succumb to an understanding of her 'place in the world' as being one in which pursuing medicine was not for people like her. The data presented above illustrate the ways in which Hannah fought to assert herself across a range of different interactions within the academic admissions process. Analysis of the data presented above highlights a number of key areas in which Hannah needed support as she prepared for and progressed through the different stages of the selection process for entering medical school. The following sections explore four of these areas: academic requirements; understanding of the medical profession; emotional support and trust and financial considerations. The analysis draws on social and cultural capital theory and ACF to provide a deeper analysis of socially situated nature of these issues.

The most obvious and immediate demand on Hannah was to meet the academic entrance requirements for her UCAS choice of institution. Mentoring played an important role here in that it brokered different opportunities for Hannah and particularly enabled her access to individual tutoring. The availability of private tutoring and the extent to which state education is being supplemented by the private sector has been discussed by Ball (2010) and formed part of the theory that variations in pupil performance were indicative of parents' abilities to buy in 'support and enrichment of various kinds for their parents' (p.155). A recent survey by the Sutton Trust of 2,488 across 11-16 year olds suggested that 22% of pupils outside of London and across England and Wales received tutoring (The Sutton Trust, 2019). For Hannah the tutoring support was only available through the efforts of her mentor and the informal support she brokered for Hannah from within her own professional friends and social network. In the very competitive process of applying to medical school, it is hard to underplay the contribution this made.

Reaching an adequate academic level though also depended on a successful UKCAT score. Again this was not a simple matter of practice. There was a realisation for Hannah that others would have access to preparation in their schools or be able to afford to buy the test kit and practice regularly to increase their scores. The support brokered for Hannah to improve her UKCAT score moves well beyond the recommendations for pupils to have better access to information on UKCAT as well as timely and appropriate advice which Lambe, Waters and Bristow (2012) conclude is necessary to improve greater equity (p.e564). Hannah's reflections on her first encounters with UKCAT, and the knowledge she gained in learning how other candidates prepared, highlight the socially distributed nature of preparation for the test. With research indicating that UKCAT has an inherent favourable bias to men, to students from more affluent backgrounds, and to students educated at private or selective entry

secondary schools (Yates and James, 2010) the use of UKCAT as a mechanism to select students remains particularly problematic for candidates in Hannah's position.

These issues can be and are frequently conceptualised simply as barriers or obstacles which can be overcome with targeted support or finance. Access to tutoring for example implies a need which if met, (though this is unlikely without funds) can be negated. However the data also shows that issues such as awareness of, and successful engagement with UKCAT is also related to what students know, and ultimately a test of – their ability to access relevant forms of social and cultural capital. Young people form more affluent middle-class households will know of the existence of the UKCAT test and its importance to their application. They will be able to afford to purchase training materials and engage in substantive preparation. They will know that by practicing for the test you can increase your scores.

In effect, the attention and support of Hannah's mentor and headteacher were crucial to securing her an adequate academic platform on which to build her application. This was not however a simple matter of giving her support. It was a complex brokering role that, first of all made Hannah aware of the ways in which she could improve her grades outside of what her school could do for her. It then drew on networks that not only could tutor Hannah but do so at zero cost.

Beyond the academic issues to be overcome however, were the more socially and culturally embedded challenges. One of the key nurturing elements of Gillian's mentoring role involved moving Hannah from a limited understanding of the profession to providing her with a more in-depth knowledge of medicine and allied health occupations. This understanding of the profession as a whole was critical in terms of supporting Hannah in producing a nuanced personal statement and improving her performance at interview. Hannah's trust in her mentor allowed her to develop a new source of guidance and emotional support. Gillian was responsive and attuned to the difficulties that Hannah experienced and was key in sustaining her engagement with the overall process of pursuing a medical career. She encouraged Hannah to continue to apply when she was told by one university that her academic and UKCAT scores were not good enough to be considered. Later, in dealing with the rejection process, Gillian's sustained engagement was necessary in supporting Hannah and maintaining her morale in preparing for her final examinations in S6. The account provides an insight into the emotional support Hannah needed as she experienced the sorts of disjuncture and alienation between life-worlds which Archer et al. (2010) argue need reconciling.

Social capital theory is clearly useful for understanding Hannah's experience. Gillian provided a form of bridging social capital (Putnam, 2000) giving Hannah direct contact to someone immersed in the medical world and cognisant of its culture. Much of Hannah's experience can be perceived as a Pygmalion like exposure to and absorption of the medical world. However, it is also important to note the stress this placed on Hannah. Her own local and family-based social network was not one that understood her ambitions or had any reason to trust they could be realised. Instead, they communicated anxiety about cost, loss of earnings in more 'secure' work and were concerned by Hannah's decisions to sacrifice her dance activities which she loved, in order to pursue her studies. While the research revealed how Hannah could build her social network in ways that accessed new forms of social capital, it also revealed the tensions in doing so.

Being paired with her mentor just eighteen months before she was due to leave school and less than twelve months before commencing her application to medical school Hannah was in the position of having to accumulate the same levels of cultural capital possessed by other applicants and nurtured over their entire youth. In the absence of any 'hereditary transmission of capital', Hannah's mentor was charged with this task. What is interesting is that this process often extended into areas of learning, experience and understanding that were more towards inducting Hannah into a different social class than simply learning about medicine. Hannah's exposure to the Royal College of Physicians and Surgeons for example, was intended not just to familiarise her with the profession and current debates within it, but explicitly to enable her to gain confidence in an elite environment which her mentor felt she would find alienating.

The concept of trust as a by-product of social capital theory is useful here. In the writing of Coleman (1988) trust is presented as an essential part of social capital as it allows the system of obligation and reciprocation to exist within a community. Effectively social capital involves members having 'credit slips' entitling them to actions of others (p.S103). St John et al. (2011) progress the concept of trust a little further and likewise problematise Coleman's assertion of the 'trustworthiness of the social environment' when applied to the lives of young people seeking to enter college in the US. Their research illustrated the ways in which trust, as a fundamental component of social capital could be a source of tension when the families and communities in which young people lived provided no access to the knowledge and understanding necessary for a successful admission to college (p.34). In this research, Hannah's experience shows how trust grew in a relationship with someone outside of Hannah's immediate social network. In accepting her mentor's advice and

consul Hannah had, to some extent, suspend her trust in the advice of her family and local discourses which questioned her ambition. While Hannah was perfectly capable of managing this situation it was not without cost or anxiety particularly on those occasions when she received rejections and her distance from a successful applicant to medical school made apparent. Trust as conceptualised by St John et al. (2011) offers a way to understand the tensions experienced by young people as they are required to form new relationships with people outside of their normal networks and act on their advice. These relationships mimic the intergenerational transfer of capital that more advantaged young people achieve through their families and networks.

The different theoretical ideas discussed above are cognisant of the influence of economic capital. These data help make explicit some of the ways in which this is implicitly fundamental in a journey such as Hannah's. Current policy initiatives in Scotland and elsewhere tend to offer financial support in very narrow though not unhelpful ways. This relates to broader theoretical ideas about economic capital framing it in terms of the overall costs of attending higher education and the implications for those from poor or working-class families. St John et al. (2011) advocate the easing of concerns about financial issues as a key part of ACF. Financial help available to Hannah largely focused on supporting her with admission to university. She was aware of the Government bursary scheme for students and of different scholarships she could apply for to support her in her studies should she enter university. However there was no support to help her in her process of learning about university and preparing herself. The cost of the UKCAT scheme was unmet as were the costs of accessing and attending work experience, going for interviews or making use of personal tutors. The social processes of ACF imply considerable cost, and a more careful in-depth analysis needs to acknowledge these costs.

Conclusion

There is a temptation to assume that current outreach provision is in place to adequately support pupils from first generation/lower-income backgrounds in overcoming barriers which prevent participation in elite courses such as medicine. This is reflected in continued funding for interventions that maintain a focus on the individual without a more adequate understanding of the difficulties applicants face in navigating towards key milestones. This paper has demonstrated that despite a range of supportive outreach activities young people from first generation/lower income households still encounter significant difficulties in achieving the required grades, sourcing and

completing relevant work experience and preparing for additional entrance exams and interviews. They must do so with very limited or no access to the forms of support that are more easily and naturally available to other young people from more affluent backgrounds. The ability to navigate and orientate towards a profession, to locate knowledge and understanding of a profession in a broader context and to draw on professional social networks are cultural resources that are more readily available to young people with access to middle class professional networks (see Hunter, 2019). The Sutton Trust (2016a) assert that '...such capital is more difficult for those from disadvantaged backgrounds to acquire than academic qualifications'(p.43).

The broad landscape of theoretical perspectives that inform this obstinate expression of educational inequality offer ways in which to understand and respond to experience such as Hannah's. What this paper has pointed to are the ways in which these processes make assumptions about candidates. These are assumptions that are inherent within admissions practice and are produced by institutions rich in cultural capital. They are at the core of the symbolic violence experienced by students such as Hannah. What is interesting however from these data is how some of these assumptions can be identified and challenged. The processes by which social reproduction occurs in this context are not undiscoverable. An understanding of the ways in which privilege maintains advantage for some students is key to effecting change that can help create equality of opportunity and participation. In building on this assertion, the theory of Academic Capital Formation as developed by St John et al. (2011) is particularly helpful. It helps illuminate the ways in which the broader societal processes of social reproduction are enacted at the individual level. In doing so, it demonstrates that a greater amount of preparatory activity is crucial to supporting a successful application to a competitive course such as medicine at university. ACF theory has translated some of the wider ideas of human, social and cultural capital into a focus on specific social processes. Arguably such a focus could provide a framework for operationalising a different approach to supporting young people while they are at school as called for by Sartania, Alldridge & Ray (2021).

The challenge for research and for policy making in Scotland is to draw on these ideas to understand these processes at a local community level and devise ways of delivering supportive interventions.

Revealed in this research are the practical ways in which academic capital can be nurtured but also and crucially, the ways in which this process depends on relationships and the building of trust. For Hannah this was achieved by engaging in the form of a mentoring relationship with a retired professional who was able to offer ongoing, intensive practical and emotional support

capable of ameliorating at least some of the wider social and culturally located barriers Hannah faced. While quotas in Scotland requiring universities to increase their intake of students from lower-income and poorer households may be welcomed, it remains to be seen whether they will, in their present form, impact on the complex and lived realities of candidates like Hannah. Widening participation policy development literate in ACF could be more cognisant of the deep personal and emotional cost incurred by young people like Hannah seeking to enter the most competitive courses at university.

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