

Is earning detrimental to learning? Experiences of medical students from traditional and low socioeconomic backgrounds

ORIGINAL RESEARCH

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ABSTRACT

Background: Medical schools are striving to produce a representative workforce through admissions processes that actively encourage applications from students with backgrounds of social and financial disadvantage. Such medical students frequently have reduced financial support and need to undertake paid employment while studying. However, there is limited evidence to show how a lack of financial support and undertaking paid employment impact those studying for medical degrees without an affluent background.

Methods: A mixed methods approach was used for this single site, exploratory study. A survey on paid employment was distributed to undergraduate medical students. The respondents who were in employment, were invited to attend an interview to further explore their experiences. Interviews were recorded, transcribed, and analysed using inductive thematic analysis.

Results: Survey responses from 199 medical students were received and 11 semi-structured interviews were conducted. Most students undertook paid employment during medical school and stated it had some benefits. However, the negative impact of paid employment was greater for low socioeconomic (LSE) students: those who met the medical school's widening participation criteria. LSE students reported that work was a necessity rather than a choice. They also had additional stress of financial responsibility for others, including parents or partners.

Discussion: Compared to traditional medical students, LSE students have reported increased negative experiences from undertaking paid employment, with a greater financial responsibility for themselves and others during their studies. Medical schools have a responsibility to adapt and provide appropriate support for all students. It is vital to understand and acknowledge the additional challenges faced by the students from LSE backgrounds.

BACKGROUND

Medical schools are striving to produce a workforce more representative of the society through initiatives and admission processes that actively encourage applicants from socially and financially disadvantaged backgrounds. (1) Such students often have reduced financial support and need to undertake paid employment while studying at medical school. (2) However, there is little evidence demonstrating how a lack of financial support and undertaking paid employment impact those studying on programmes typically designed for students from more affluent backgrounds. This article provides novel insights into the motivations and impact of undertaking paid employment of students from low-socioeconomic (LSE) backgrounds and those from more traditional backgrounds.

Across Higher Education (HE) in the UK, there is an increase in the number of full-time students. (3) Carney et al. reported that half of the university students were in part-time employment and cited the main motivations for working as financial necessity and hardship, followed by obtaining disposable income. (4) The majority of medical students come from financially secure backgrounds. (5) That said, this demographic of medical students is slowly changing, (6) with more students from LSE backgrounds studying medicine.

Within medicine, the British Medical Association (BMA) found that two thirds of medical students rely on parental support, with an average annual contribution of £3702. However, medical students from LSE backgrounds are 'less likely to receive financial support from their families.' (7) As a result, the medical students from low socio-economic backgrounds are more likely to undertake paid employment whilst in HE, than the students from traditional backgrounds to supplement their student loans and support themselves. (8)

Difficulties in maintaining a balance between study and employment have been identified within the literature, with students often feeling conflicted between their responsibilities as an employee and as a university student. (9) For students from a lower income background, there is also a 'double deficit' between the 'shortfalls' in student budget compared to the pressures of employability. (8) Hordosy et al. determine that students from a lower income background had constrained degree outcomes and a lack of capacity to enhance skills required for future employment, when compared to their higher income peers. (8)

Curtis and Smith recently reported reduced progression and graduation for medical students on programmes designed to increase the number of underrepresented students, predominantly those from LSE backgrounds, compared to students on traditional medical degree programmes. (10) This study highlights a disparity in outcomes with students from LSE backgrounds achieving reduced outcomes for aptitude and achievement on entry to medical school and reduced academic achievement in the final year. However, the study reported the difference in academic outcomes is reduced by the end of medical school. The authors proposed one factor in-

involved in this difference could be the greater need to undertake paid employment and stress associated with debt and the reduced time for studying. (11) Baert et al. suggested it was the primary focus of either employment or studies that impacted the student experience. (12) Students whose primary focus was on employment showed a negative correlation between hours worked and academic performance, whereas this was not the case for students whose primary focus was their studies. (12)

Financial security provides students with more than just free time, as observed by Tara Westover in her book 'Educated,' where she noted, "Curiosity is a luxury reserved for the financially secure." (13) Such security is accompanied by freedom from many additional stresses and concerns, contributing to high academic achievement. (13)

Medical schools have a responsibility to understand the challenges faced by their students and to accommodate and support them, in order to optimise all students' academic potential. This article aims to investigate the impact of undertaking paid employment at medical school, exploring the experiences of two groups of medical students from different socioeconomic backgrounds.

METHODS

Study design

This was a single site, sequential exploratory, (14) mixed methods study consisting of a survey followed by semi-structured interviews. (14) A survey on paid employment was developed in conjunction with the University Student Services, which included questions around the number of hours that students worked and what time of the year the students worked. It also included open-ended questions regarding the experience and impact of undertaking paid employment. Data collected through the survey was used to inform the interview framework (for further details of the framework please see data analysis). This study was approved by the University of Southampton, Faculty of Medicine Ethics Committee (ERGO number: 41972).

Participant selection

Students on the University's 6-year widening participation, 4-year graduate entry, 5-year standard entry and 5-year German exchange programme were included. Students in the first year of their programme were excluded as the data was collected in the first semester of the academic year; therefore, these students would have very limited experience of undertaking paid employment alongside their studies. Students between their second year to final year of medical school were included in the study. Participants weren't offered any incentives to fill out the survey or conduct an interview.

Data collection

The survey was distributed as a paper-based document in lectures (appendix 1). An electronic format which was available on the Uni-

versity's iSurvey was distributed via Facebook and WhatsApp. Data collection occurred between September and October 2019.

Students who stated they undertook paid employment in their survey responses were all invited to volunteer to take part in an interview by contacting the researcher via email. Students who had not undertaken paid employment as a student were not eligible for an interview.

Students, who were interviewed, gave their informed consent via a participant information sheet and consent form. All interviews were face-to-face following a semi-structured framework (appendix 2). All participants were asked the same set of questions, with follow-up questions tailored to their individual responses. The students' interviews were not linked to their questionnaire responses. All interviews were digitally recorded, anonymised and transcribed.

Data analysis

Students were divided into two groups based on their survey responses to the following eligibility criteria:

- First generation applicant to Higher Education
- Parents, guardian or self in receipt of a means tested benefit
- Young people looked after by a Local Authority
- In receipt of 16-19 bursary or similar grant
- Resident in an area with a postcode which falls within the lowest 20% of the IMD (Index of Multiple Deprivation), or a member of a travelling family
- In receipt of free school meals at any time during Years 10-13

These criteria are used to select students from educationally and socially disadvantaged backgrounds for entry into the Medical School's 6-year Gateway programme. Students who met a minimum of three criteria were identified as being from low socioeconomic (LSE) backgrounds, whereas students who met fewer than three eligibility criteria were identified as traditional entry (TE) students.

Survey analysis

Responses from the paper-based and electronic surveys were collated on an excel spreadsheet. Descriptive statistics were used for ordinal or categorical answers to present the basic features and summarise the characteristics of the survey data for the two participant groups, LSE and TE students.

Inductive thematic analysis was used to explore the open-ended questions. This method of analysis assumes no predetermined theories or frameworks and explores the data to establish themes within it. (15) A sample of survey responses for both participant groups were coded by the researcher and their supervisor separately, who then met to discuss and agree the initial coding. From this, two separate coding frameworks were developed and applied to the remaining surveys for both participant groups. If new codes were

identified during the analysis, the frameworks would be updated with these codes and reapplied to the previously coded surveys in an iterative manner.

Codes were then further analysed and grouped under relevant themes. The main themes helped to inform the semi structured interview framework allowing further exploration of key areas that students highlighted as important.

Interview analysis

The interview transcripts were also analysed using inductive thematic analysis, applying the same method employed for the survey. Two transcripts, one for each student group, were coded separately by two members of the research group and two initial coding frameworks were created. The frameworks were iteratively developed and applied through analysis of the remaining interview transcripts.

Data synthesis

Initial themes were identified from groups of related codes within the coding frameworks. The themes were explored in the context of the related codes and to the other identified themes to ensure they accurately reflected the nature of the data. Through several meetings and discussions with the wider medical education research group, the themes were considered collectively, how they were situated with each other, and were synthesised into a schematic diagram representing the overall findings of the study. During this process, two categories were elicited that overarched the themes for the two participant groups.

Reflexivity

The lead researcher is an undergraduate widening participation student and reflexivity was a key aspect of the study design. The impact of lead researcher biases on the study design, data collection and analysis were minimised through the collaboration with Student Services on the survey design; the development of the interview framework had input from several members of the research group and a pilot interview helped refine the framework. Coding and analysis were discussed at regular intervals throughout the process and the lead researcher kept a reflective journal to reflect on their relationship with the participants, the impact on the data collection and analysis of the data. (16)

RESULTS

Survey data

Survey responses from 199 medical students were received. We determined a response rate of approximately 25% when considering the total number of students per eligible year group versus those who responded. However, a truly accurate response rate was difficult to determine as the survey was distributed via social media; therefore, it was uncertain how many students the survey reached. The survey showed 78% of respondents had undertaken paid employment whilst at medical school (n=155/199). When comparing the two groups, we found the proportion of LSE students who worked was 84% (n=41/49), which was marginally higher than the proportion of TE students, which was 77% (n=115/150) who worked (Figure 1).

The distribution of respondents for the survey were as follows (Table 1).

There were differences in the time of year students worked. The largest proportion of LSE students (43%) worked during both holidays and term time (n=21/49). Whereas the largest proportion of TE students (45%) worked during the holidays only (Figure 1) (n=68/151). Additionally, it was found that the number of hours contrasted between the two groups. The largest proportion of LSE students worked between 16–20 hours per week compared to the 6–10 hours per week worked by TE students (Figure 2).

Working Periods of TE and LSE students

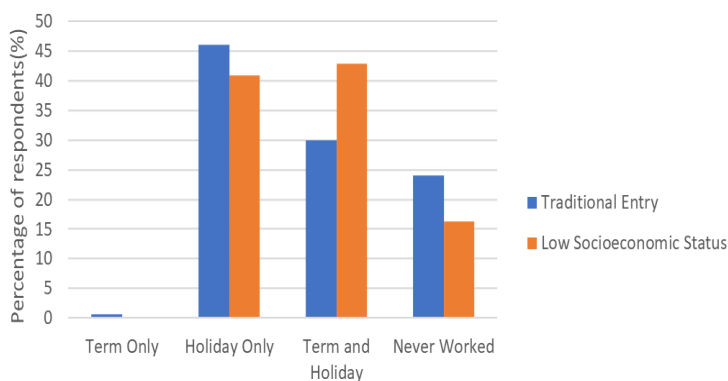


Figure 1: Working periods of TE and LSE students from survey responses

Hours worked by TE vs LSE students

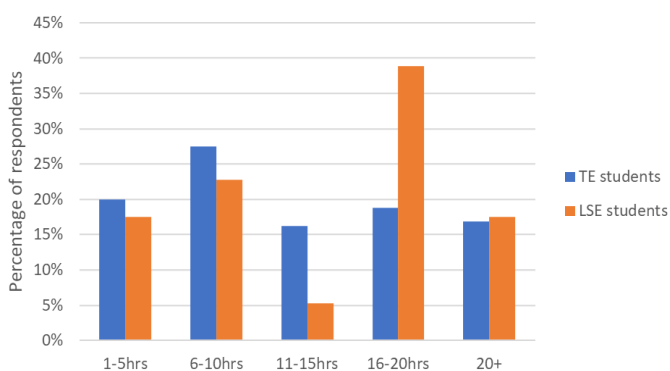


Figure 2: Comparison of average hours worked by TE vs. LSE students.

Interview data

11 semi-structured interviews were conducted (6 LSE and 5 TE). The following section compares the individual themes found in the interview data. The participant demographics for the interviews are as follows (Table 2):

From the interview data, the overarching experience of LSE medical students was compromising on their academic studies to prioritise their finances to survive at university, whereas TE students were able to prioritise their education over paid employment. These experiences are further explored through the three distinct themes identified for each group and two shared themes summarised in Figure 3.

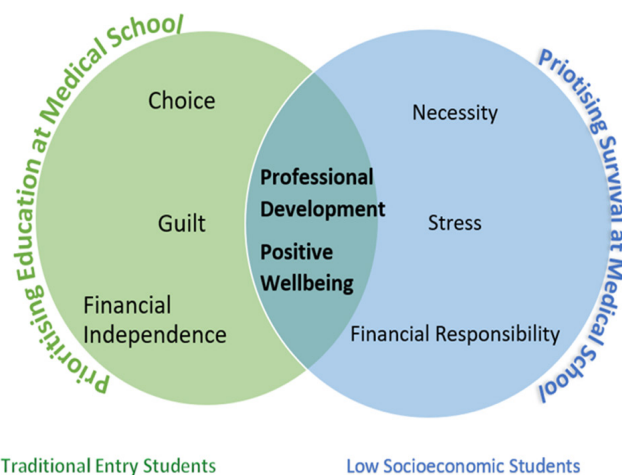


Figure 3: Schematic showing the themes that both groups experienced individually and shared (shown in the overlapping section). The overarching

Choice vs. Necessity

TE students reported being able to choose when they worked, since their motivations to work stemmed primarily from obtaining disposable income. In comparison, the LSE students were unable to rely on parents’ or guardians’ support and had no choice but to work for income.

“I tend to get bored quite easily so working alleviates the boredom of summer. And I’m earning money so I’m not going to complain...”
TE student, 4th Year

“My mum, she loves to try out and help in all the ways she can. But she just can’t... That’s why I went to the faculty [during financial hardship]. And if she does have money, I know she’d put herself under strain. You can’t really ask someone for money if they don’t have it.”
LSE student, 1st Year.

Table 1: Demographic data of participants from the survey responses.

Survey categories	Traditional Entry Students	Low Socioeconomic Students
Gender		
Female	91	21
Male	61	26
Total (n=199)	152	47
Age		
18-22	128	40
23-27	18	4
28-32	4	2
33-38	3	0
Total (n=199)	153	46
Ethnicity		
White	95	11
Asian	15	10
Black	10	16
White (Other)	6	1
Mixed	8	3
Prefer not to disclose	18	6
Total (n=199)	152	47

Table 2: Demographic data of participants for the semi structured interviews.

Participant Number	Year	LSE or TE student	Gender	Age	Job Role
1	4	TE	F	25	Student Ambassador
2	2	LSE	M	22	Ambulance Care Assistant
3	4	TE	F	23	Summer School Team Leader Student Ambassador
4	3	LSE	M	22	HCA Student Ambassador
5	1	LSE	F	20	Porter Care Worker
6	5	TE	F	22	Student Ambassador
7	2	LSE	F	20	Bartender Student Ambassador
8	3	LSE	M	27	Pharmacy Clerk Assistant Manager Student Ambassador
9	2	TE	F	19	Personal Assistant Support Worker
10	2	TE	F	23	Receptionist Hospitality service assistant
11	2	LSE	M	20	Student Ambassador

Guilt vs. Stress

Regarding employment, TE students expressed guilt as they felt their time should be focused on medicine, which may explain why the majority did not work during term time. More LSE students found it necessary to work throughout the year, including before and during exam time, to retain their place. This resulted in stress as they felt it was detrimental to their exam performance and medical school experience.

“[Employment] was a vicious cycle of ‘oh I feel really guilty for being here, I should be doing work’ and starting to [study] and thinking ‘Oh my God I’m so far behind.’”

TE student, 2nd year.

“I’d be working during the week, I’d be working the weekends... I’d work the weekend before exams... You feel under a lot of pressure... [Employment] affects your studies, your sleep, your wellbeing. “Some students have to work. That’s not an option. I couldn’t live without working. For me, I couldn’t sustain that. so it puts you in a difficult position when you have to work without any support.”

LSE student, 3rd year.

Financial Independence versus Financial Responsibility

Finally, TE students found paid employment gave them financial independence from their parents and provided disposable income. However, half of LSE students interviewed worked to financially support others, such as their family or partner. They felt the medical school, other students, and the doctors on placements were not aware they could be in this position and perceived a stigma around their financial status.

“My parents cover my rent. ... When I was socializing with lots of other courses, social life took more of my [pay from work]. It’s easy money I’d say. So I do it for a little extra cash but I like doing it.”

TE Student, Final Year

“One thing people [of LSE backgrounds] don’t tend to mention is family circumstances. In my first year, I had to send money back home to my family so I can actually support them. They’ve asked me to send money because they are going use it to pay for rent, or groceries or school clothes. I don’t think [the faculty] are aware. Because I think most people who send money back home are shy. I remember telling another medical student of a different programme. She seemed absolutely shocked to even hear that I would have to send money back home.”

LSE student, 2nd Year.

Shared themes

Despite the differences identified between the groups, they also reported similar benefits such as positive wellbeing, created through a sense of independence and having interests and relationships with people outside of the medical school. Increased levels of transferable skills and interactions with others were reported to support their professional development.

“Being a student ambassador you have to communicate with a range of people... So everyone is a different age group and they have a different understanding of what university is, and what higher education is. So it’s really helped me to adapt with my communication skills as well as my team working skills.”

TE Student, 4th year.

“[Work] helps with my time management. It’s a good way to build on skills. The extra money is helpful for like personal reasons... I like the different environment it gives you... I think a lot of the skills I have now and a lot of the reasons I wouldn’t say I’m a good student, but have a lot of good communication skills is probably because of my job.”

LSE Student, 3rd year.

DISCUSSION

The findings of this study highlighted key differences in experience and impact of undertaking paid employment while studying for students from different socioeconomic backgrounds. Clear differences could be seen in the student’ responsibilities, emotional responses and overarching priorities.

Prioritising education and prioritising survival for TE and LSE students respectively, may go some way to explaining the difference in undergraduate outcomes for widening participation students compared to standard entry students reported by Curtis and Smith. (10) This is also in line with the findings of Baert et al. who showed a negative correlation between hours worked and academic performance for students whose primary focus was employment, whereas this was not the case for students whose primary focus was their studies. (12)

Although TE students reported feeling guilt from working alongside studying, most could choose to stop working around exam time. These findings align with many TE students’ income being supported by their families. (5, 7) TE students describe working to increase their disposable income and for financial independence; however the authors interpret this independence as providing their own spending money rather than being responsible for all financial outgoings. This differs from LSE students, who are working to survive and to support others; thus, they have less choice to stop working at exam time. LSE students reported feeling stressed at not being able to study as much as they would like. Consequently, it is feasible to assume that the stress experienced by the LSE students, as well as the time spent away from their studies due to employment, are factors in the difference in outcomes reported for students from LSE backgrounds. (4, 12)

Despite most students undertaking paid employment, there were clear differences in when and why they worked and the impact this had on their experience at medical school. Not only did LSE students report it was a necessity to work to support themselves, over half of those

interviewed had financial responsibility for others. This included working to support themselves, but also for their parents, partners or siblings. Some felt stigma attached to financially supporting their family and were reluctant to share their situation with other students or the faculty, which could reduce the support they seek. Consequently, this may cause them to feel marginalised and compromise their sense of belonging, leading to a greater level of stress. (9)

This study acknowledges the benefits of working that both the LSE and TE groups reported. As well as the monetary compensation surrounding employment, all students expressed developing transferable skills e.g., teamwork and communication at work. These findings contrasted somewhat with those of Hordosy's et al., who concluded students from lower income backgrounds felt that work was detrimental to their professional development. (8) Nonetheless, it may be argued the benefits of paid employment during medical school may not always outweigh the risks when considering a holistic experience for students.

Considering the data from this study, following are some suggestions that the universities could implement to support LSE students:

- Medical schools should foster a culture that accommodates various financial circumstances of their students. Students still perceive a stigma surrounding financial hardship and the need to undertake paid employment whilst at medical school.
- Medical schools need to be aware of the negative effects of external financial responsibilities and paid employment on students e.g., sleep deprivation, low mood.
- Timetabling should be considerate and flexible for students who may need to work throughout the year. Avoidable, last minute changes to the timetable may be to the detriment of students who balance work and study.
- Faculties should run support groups where medical students can discuss balancing paid employment and their studies.

This is a single-site, exploratory study with a small participant sample, which limits the ability to make wider inferences from these data. However, the results of this study provide new and important insights into this area of student experience and would benefit greatly from wider and more detailed investigation. Such insights include the motivation and impact of undertaking paid employment alongside studying for a medical degree and how this impacts the experience for students from different socioeconomic backgrounds.

CONCLUSION

The financial disadvantage LSE students face prior to entering university frequently continues throughout their undergraduate programme. The consequences of this disadvantage can negatively affect their experience at medical school and may contribute to differences in achievement and progression reported in some UK medical schools. With the increasing numbers of students from low socioeconomic backgrounds entering medical school, it is crucial that medical schools understand the impact of a student's background to contextualise student outcomes and offer appropriate support to maximise all students' potential.

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