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Title page:

How do Undergraduate Medical Students Perceive Social Accountability?

Short title:

Students' perceptions of social accountability

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Abstract

Aim.

The concept of Social accountability within undergraduate training is embedded within the remit of Medical schools. Little is known of how medical students perceive social accountability, recognise aspects of their training contributing to the development of this concept and cultivate the underpinning values.

Methods.

Students nearing graduation were recruited to participate in focus groups designed to explore their perceptions of social accountability, which curricular aspects had contributed to their understanding, and to investigate the implications of individual variations in training.

Results.

Students expressed limited appreciation of the concept of social accountability and acknowledged little explicit teaching around underpinning core concepts such as awareness of local health needs, advocacy and nurturing of altruism. However, participants recognised numerous aspects of the course and learning initiatives as impacting on their attitudes towards this concept implicitly.

Conclusion:

This study highlights areas of their undergraduate training that students recognise as having the greatest impact on their development into socially accountable professionals. It poses some significant challenges for health care educators in addressing unintended consequences, including an outcomes driven educational approach, in reducing students capacity or willingness to engage in curricular challenges often designed to embed this concept.

193 words

Introduction

The ultimate goal of health care practitioners is to improve the well-being of fellow human beings - physically, mentally and socially. As the medical profession is embedded within the ethos of health care service, social accountability is increasingly recognised as an integral feature of medical schools (Gonnella and Hojat, 2012, **Rourke, 201**3), The World Health Organisation (WHO) defines the social accountability of medical schools as *"the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region and/or nation that they have a mandate to serve"* **(Boelen and Heck, 1995)**. This concept of the social accountability of medical education was embraced initially by medical schools established more recently to address healthcare needs of underserved populations, but is rapidly moving to a more central concern of a significant number of medical schools across the globe (Woollard, 2006, **Dharamsi et al., 2011**). Born from rising concerns about the professionalism and relevance of both the educational institutions and their graduates, it is seen increasingly as an urgent call to focus the considerable social and educational resources entrusted to medical schools on ensuring their graduates are "fit for purpose", and to identify and address the priority health concerns of the societies they serve once in practice (**Rourke, 2013, Woollard, 2006)**

Although an awareness of social accountability of medical education and its' general principles have been well established for over a decade, their inculcation and embedding within medical schools and their culture has been slow (Woollard and Boelen, 2012, Gary et al., 1999). Individuals and society express increasing desire for greater transparency, democracy, participatory management, accountability for returns on investments and explicit contributions to public wealth and the Frenk report makes a call for a different sort of health care professional of the future (Woollard and

Boelen, 2012, Frenk et al., 2010) . Demonstration of social accountability is now not only a moral duty of the medical profession**, but also a response to the increasing demand to keep pace with development of society** (**Dharamsi et al., 2011)**. Consequently a greater pressure is inherent upon medical schools to verify their impact on the population they serve (Woollard and Boelen, 2012).

Medical schools are in a pivotal position to address society's priority health needs through their educational programmes, and to ensure health system management skills within graduates(**Dharamsi et al., 2011**). Graduates need not only competencies within the knowledge and skills identified for effective practice of a 21st century physician, but additionally attention must be paid to ensure appreciation of the centrality of professional values and attitudes in sustaining medicine as a moral enterprise (Woollard and Boelen, 2012) . The emerging literature proposes approaches to facilitate the creation of socially accountable graduates. These include a number of key fundamental principles including enhanced integration of medical schools within the community at both an institutional and student level, formal training in advocacy, and nurturing the core values of care and altruism within their students (Frenk et al., 2010, Boelen et al., 2012, Boelen, 2000, Woollard, 2006, Meili et al., 2011, Martin and Whitehead, 2013). Implementation of experiences intended to support the development of the values embedded within social accountability have been drivers, and intend to reflect both local and wider global environment as well as the underpinning social values (Boelen et al., 2012).

The University of Leeds has **expressed these core values within its' educational strategy and embeds a range of experiences to develop the values of social accountability within the curriculum.** These include initiatives for all students, such as community-based learning

opportunities, a range of clinical placements, and international electives. Additionally there is potential for individualised experiences through student selected attachments. These aim to foster and support specific interests and provide opportunities to broaden learning and personal developmental experiences outside of the core defined curriculum (student selected components (SSCs)) (Dowell and Merrylees, 2009, Murdoch-Eaton et al., 2004). **However evidence of impact from such initiatives on students' recognition of the broad potential learning from such experiences, the concept of "social accountability" as an entity, or even enhanced awareness and change in attitudes including potential impact on future practice is limited.** This research intends to explore this gap by exploring medical students' perceptions as they near graduation of their learning experiences, and how these have influenced recognition and appreciation of the concept and relevance of social accountability within their emerging professional journey. The study also provided a valuable opportunity to appraise how factors such as participation in extracurricular activities, or the locations of organised clinical placements might affect their expressed views.

Methods

Penultimate and final year students from a five year undergraduate course were chosen as the sample frame for this study, being nearer graduation, and thus more able to reflect on the majority of the programme. This would include both aspects of training common to all students as well as curricular areas designed to provide potential diversity in experience or that were open to student influence, including electives, SSCs and geographically different clinical placements.

Focus groups were chosen as the principle method of data collection to explore the students' perceptions and understanding of the concepts and values expressed within social accountability. **The authenticity of data generated from the focus groups was maximized through facilitation (MLM) and contemporaneous recording by peer students, and thus were unlikely to be considered to have power or status over participants. In order to eliminate bias and misinterpretation of the data, the secondary researcher (DME) validated all questioning framework and results.**

Students in the final two years of the course were approached by email, and provided with a brief summary of the research and expectations of participants. Respondents to this initial email received more detailed information about purpose of research, requirements and confidentiality together with the consent form, and a proforma to be completed prior to attending a focus group session. The pro-forma required students to provide demographic information including age and gender as well as document their range of clinical experiences and type of electives. The purpose of this pro-forma was thus not only to collate information, but also acted as a prompt to participants initiating recollection and reflection on the range of placements experienced throughout their training prior to the focus group.

As preparation, a pilot focus group was held with a cohort of volunteer students and was observed and commented on by an independent experienced researcher. This provided an opportunity for the primary researcher to pilot the questions and focus group methodology together with an opportunity for objective feedback from the experienced researcher. All focus groups were audio recorded and participants given alpha-numerical codes for anonymity of data (e.g. 1FA = first

female participant group A). Additionally an independent focus group observer, also a student, took contemporaneous observational field notes recording non-verbal information, including body language, facial expressions and gestures of participants. This was intended to add depth to the information and to enhance accuracy and analysis of information collected through dialogue recordings. The field notes were subsequently added to the verbatim transcripts prior to being analysed utilizing the six phases of thematic data analysis Braun and Clarke (2006). **Analysis was discussed with and reviewed by the research supervisor secondarily to the primary researcher, for elaboration and double coding** (Westbrook, 1994).

Ethical approval for this research was granted in February 2013 by the University of Leeds Research Ethics Committee (Reference: HSLTLM/12/028). Prior to participating in this study all individuals provided written, informed consent.

Results

Five focus group discussions were held with between five and seven participants in each (**total n= 29, 12 in final year and 17 from the penultimate year**). Contemporaneous analysis of the focus group data was undertaken; by the final two focus group sessions no new concepts were emerging, demonstrating saturation had been reached thus further focus group sessions were not held.

Table 1 shows the demographic break-down and personal details of participants from the data gathered from the proformas. Genders were represented equally within the focus groups; however this is not representative of the medical school cohort from within which the student volunteers were recruited (62% female). The majority had undertaken another degree prior to the study, predominantly as intercalated BSc's undertaken between years three and four of the undergraduate medical course. All participants were white British, again not reflecting a true representation of the sample frame of which only 66% of students are white British.

A significant proportion of students sampled (65.5%) had taken the opportunity to spend an 8 week period abroad during their elective (between years four and five of the course). Figure 1 illustrates the range of medical school organised clinical placement locations experienced. All students would have experienced both a city (teaching hospital) and at least two District General Hospital (DGH) (situated in smaller towns) attachments, with a minority having had an opportunity for placements in the smallest DGHs (DGH 5 to 8) or a rural hospital attachment. All this background information collated from the proformas provided context and depth to analysis and interpretation of focus groups transcripts.

Student perceptions of the meaning of social accountability

The initial opening question *("What do you think the concept of social accountability means in relation to medical education?")* was aimed to explore the students' starting point in understanding of the meaning of "social accountability" in relation to medical education before being provided with the definition. Few students responded to this opening question and those responses given showed lack of certainty with no single student able to demonstrate a well-developed understanding of the term. The responses given suggested an appreciation at the level of concepts

of social responsibility and social standing of the medical profession. References were made to the implications of one's actions on their professional role and a duty to society of which they are part of as a medical professional. *"When you accept your place at medical school I think you take on a responsibility. That in society you will be held accountable for your actions, I think." [2ME]*

Several participants also expressed a view that part of their understanding of social accountability was the duty that the medical school had to its' students. They stated that this duty (of the school) encompassed both ensuring students knew what was expected of them at different stages during training and supporting them to achieve this, not only in those areas of clinical skills and knowledge but also in terms of communication and cultural education. *"...they need to support us as well....to support students on placement so they know what is expected of them" [2FB], "If they are going to send us to [place name], then for example they should be teaching us cultural stuff about [religious designation] people because that is very commonplace there" [2ME].*

When discussions within each group around their pre-existing perceptions regarding the meaning and understanding of the term "social accountability" had been sufficiently exhausted, students were then provided with a printed copy of the WHO (1995) definition. In the ensuing discussion, students then stated a recognition of the principles underlying the concept and largely expressed agreement with the definition. *"That makes sense because if you're working in that community then you want to be like geared up for what's actually there." [5MF]*

The main area of dissent expressed by the students around the provided definition of social accountability concerned the interpretation and definition of a geographic scope of the priority health needs or the community "they had a mandate to serve" (WHO 1995). Students expressed

differing views concerning how specific or constrained their teaching should be. By some, concern was raised that the definition made no mention of the importance of recognising global health needs. In contrast, some participants were surprised that medical students should even have to direct their learning specifically to local priority health needs, when the same requirement was made of no other professional training. *"I guess you've got to decide whether that means as a nation because we could all move to different parts of the country or should Leeds medical school be directing it [their education] towards like a Leeds based population or should we be learning more nationally? We could all go work abroad so should we be learning more internationally?" [4MC].* There was no association with these expressed views and any identified experience or demographic difference between the students.

Student perceptions of behaviours and qualities necessary to be socially accountable

The next phase of the focus groups probed the students' perceptions around behaviours and what they believed behaving in a socially accountable manner to mean. Participants were encouraged to share their opinions about concepts of relevance to social accountability, including the importance of advocacy, altruism and an awareness of local priority health needs both in their current role as a medical student and as their perception of later roles when a qualified medical professional.

Advocacy:

The general consensus expressed amongst these student participants of the importance of being an advocate for priority health needs reflected their consideration that advocacy was aligned with role modelling. Views expressed were that medicine was *"just a job" [2FD]* and that individuals' behaviours and what they did in their private life should have no implication on how they are perceived professionally, so long as it did not impact on their ability to practice. *"...as a doctor it's*

your job and it's a really responsible job but it doesn't govern everything about how you live your life." [2FD]. **This was especially true when participants confined their considerations to their present status as a student, and where they perceived limited individual responsibility and influence .** Furthermore, the students also expressed a view that they would not consider they had an advocacy role to perform currently, as their primary focus was to pass exams and not to challenge. *"As a medical student I find it's more like you're just trying to get by and like keep your head sort of above water and not sort of get booted by like making waves about what sort of you think they should be doing."[4MF].* The generally expressed perception was that advocacy roles would play a part in their future, post-qualified, life when they believed they would have more power to act as agents of change *"I think as a medical student, yeah you don't have as much input, you're kind of bound by the curriculum" [4MA]*

When considering whether the medical school had a duty to formally teach students the importance of advocacy, the overriding opinion of participants was that this was unnecessary. *"I don't think it is something you can get taught. I think it is something that you have to pick up and do as you go." [1FG].* The perception that such traits or behaviours would be acquired during training was articulated that this role would be one that they "*subconsciously grew into*" *[4MA]* during their progression through the course, and additionally was within inherent common sense. *"I think you should have that common sense if you have made it as far as medical school, like that should be inherently part of your attitude" [2FD].*

Many participants attributed their increased awareness of their role in advocacy to hearing anecdotes from other students, learning from more senior health care professionals and learning from personal experiences and indeed mistakes. This demonstrated recognition of the value of

both placements in clinical practice, and an integrated curriculum model providing clinical experiences alongside scientific teaching *"You have to change with your knowledge- you have to grow" [2FC].* Further evidence of an acquisition or maturation model of recognition of an advocacy role for medical practice that was developed over the course of their training came from expressed views that the increasing demands, responsibility and patient exposure in the later years demanded a greater demonstration and recognition of professionalism, role models and realisation of their role as advocates. *"As you're exposed to doctors a lot more and you're around how they behave" [4MD], "You have to experience it and you get it from your peers as well. Learning from your friends, or just like things you hear on placement from your friends or things that your friends tell you. You hear anecdotes and that kind of thing" [1MA].*

Nurturing altruism:

Differences in expressed opinions arose when participants were probed further and asked directly if their articulated altruistic motives for starting the course had been nurtured by their experiences at medical school. Many participants who had declared on their pro-forma an involvement in extra-curricular activities expressed that this was important for their personal development and altruistic beliefs. During the focus groups, students expressed views that they considered the medical school could do more to support this. As illustrative, it was stated that greater emphasis should be placed on volunteering opportunities and involvement with charities as a method of nurturing altruism. "*I'm sure most of us before we came to university did some sort of volunteering, working in a nursing home and I would say the majority of students probably don't do this anymore, and I think it is a shame that the medical school doesn't encourage people to kind of foster that kind of altruistic nature by taking part in some community work or volunteering work, which I think benefits you as a*

whole person" [5MF]. In contrast however, a significant number of these students also expressed the view that they did not feel that it was the duty of the medical school to nurture students' altruistic motives. They stated views that medicine is a competitive course and that with competition for places, the medical school should not need to concern itself with developing such qualities, as selection should have already identified these characteristics. *"…you just know that there's hundreds of people that would rather, would happily be in your situation so you just carry on." [4ME].*

When asked specifically about those aspects of the course designed to enable students to develop personal interests, many of which include exposure to such external agencies or potential volunteering opportunities (for example within SSCs – student selected or designed course components), the overriding theme of views expressed was that whilst they recognised the intended benefits of such curricular opportunities, they considered that these were rarely realised. **As illustrative of this, there was a negative perception of the variability in placements being offered (in SSCs for example) which created perceived inequities in terms of workloads and assessment. -***"I mean, like, SSCs there's way too much variation in like the amount of work you have to do on them, how they're marked, who marks them, like it's literally so hit or miss with an SSC whether you have a good one or a bad one" [4MB]*. **Students also described strategies utilised in their selection of attachments, and in making choices based upon a perception of being more likely to achieve a high grade, or gain a publication of benefit for their CV. These responses illustrate a concerning expressed change in attitudes of these participants as they had progressed through undergraduate training; when presented with an opportunity to choose an attachment or project of specific interest to them or that might expose them to an alternative learning environment, they appear not to be willing (or empowered) to "take risks" and explore the**

potential and developmental opportunities that could contribute to an enhancement of social accountability. Furthermore, some students went further in expressed views that their time at medical school had *"squashed" [5FE]* such motives and their enthusiasm through the outcomes-driven course design. *"The only reason you do well in an SSC is because you want to get a good grade so you can keep on track for honours or because you want to get published. It is not because, well for me personally, that I have any interest in what I am doing. It is purely for points." [2ME].*

This was reinforced by views comparing their progression through the course to *"walking on a tightrope" [2FD]*, where they felt like they had to jump through a series of hoops in order to progress; *"the whole of 4th year has been ticking boxes" [2FB].* They perceived the enforcement of a number of learning initiatives such as work place based assessments (WPBAs) and attendance records, to detract from learning opportunities and their altruistic motives. *"You are not even thinking about what patient you are going to see next, you are thinking I need to get someone to sign my attendance" [2FB], "You are seeing patients as skills to get signed off rather than as patients"[2ME].*

Awareness of priority health needs:

When students were asked about their awareness of priority health needs of the local population, they believed that this was acquired during clinical placements and something they subconsciously would have observed. Students specifically identified and recognised the value of general practice (primary care within the community) placements and early exposure to the community as a good way of gaining a *"better understanding of local population health" [5MD]* than the acute aspects observed on secondary care placements. Analysis of the proformas evidenced that students had been exposed to a wide range of clinical experiences in varied socio-economic, cultural and ethnic

areas (Figure 1). *"I think you subconsciously probably do just pick up on what the local demographic and what's common and stuff just by seeing patients on the ward and stuff like that" [4MA], "When you are in the GP, you actually see a much broader spectrum of what people are actually like" [1FB].*

However, local health needs were not something that students reported either actively considering or that they considered they should concern themselves with. Again, as with their perceptions of their duty to behave as an advocate for health, this was something that they believed would become important later in their professional life when they had considered they would have more influence, *"As a medical student my prime aim is to pass exams and become a doctor at the end of it, and yeah it might sound a bit irresponsible but at the moment the needs of the general population of Leeds aren't my concern" [3FA].* A few students indicated that they regarded priority health needs to not be a concern of doctors at all but instead the role of more administrative or governmental professions. *"It is all the admin and public health people that need to do the big wider schemes for an actual region. I think as a junior doctor you just focus on the initial problem that is in front of you because it is the most pressing concern" [2ME].*

The only active consideration the students expressed a need to ensure they had knowledge of "the priority health concerns of the population" was around ensuring coverage of common medical topics, and thus this again reflected their expressed student-focussed priority of examination success. Students declared that they ensure learning around identified course outcomes, and that they considered it was the duty of the medical school to ensure that this is appropriate. *"You learn what you get told to learn and you hope that they have put some thought into that" [4MF].*

All students who had carried out, or were in the process of planning an international elective said that this had made them more aware of global health. However, although these students had a self-declared increased awareness of global health needs, they demonstrated some constraint in their understanding of global health in that they did not believe that it was important or relevant to themselves as students who were being educated in the UK. Their expressed views were that should they choose to work abroad in later life, it would then become their duty to learn about differing health needs, as it would if they moved to a different part of the UK. *"I don't think the medical school should have to teach global health because at the end of the day the medical school and the NHS is training you to be a doctor in England" [2ME].*

Some students believed that they would primarily stay and practice in the UK. This was both due to the debt they felt they owed the NHS for their training, and for familiarity and personal reasons. Although many students stated that they intended to work abroad, the majority expressed an opinion that this would be short term and would be predominantly for personal reasons. These students expressed the reasons to be a perception of better quality of living and pay in the UK, rather than the influence of altruistic motives such as to improve global health inequalities. During further probing, some students however stated a differing perception that leaving the UK would not have significant implication for the NHS, and even expressed motivation to leave due to lack of job opportunities. No single student declared any responsibility to stay and work locally in proximity to the medical school. *"I definitely feel a bit of responsibility, because of the huge amount of money that we've taken off the country to teach us, but I'm definitely going to go away for a bit and then come back."[3MC].*

Discussion

The terms “social accountability”, “social responsiveness” and “social responsibility” are frequently used interchangeably , and so it is not surprising that students described a sense of responsibility to society when asked their understanding of the concept of social accountability. However, the three terms convey very different meanings and to reduce ambiguity, Boelen, Dharamsi and Gibbs (2012) devised the “social obligation scale” as a useful clarification to utilise when considering this concept (Table 2).

The findings from this study illustrate that students perceive their medical school and their training so far to be responsive or responsible but not yet accountable. The reported reflections of students were that the societal health needs, or the importance of recognising such needs, were not recognised as having been explicitly explained to them. Rather, they considered that this was implicitly expressed through the integrated course structure and thus subconsciously realised. **This was also true of how the students reported their perceptions of their experienced curriculum as described in the criteria outlined by Boelen, Dharamsi and Gibbs (2012).** Students also identified the outcomes driven curricular approach as having consequences on their approach to learning, depicted as relentless hoop jumping and a perception of lack of support or opportunity to explore and develop their own interests.

When exploring the qualities of a socially accountable professional, the overarching theme emerging from these students expressed views was that of a future, not current, obligation. Although this illustrates the concept of social accountability is not at the forefront of students’

minds during their undergraduate training stage, this can still be viewed as a success of their Medical School in regards to embedding this concept as a key aspect of professional practice after graduation. **Many participants did express views that their future role encompassed working as advocates for health and, by implication, agents of change for population health, both through identifying public needs and in being empowered to advocate for these principles.**

However, although students were aware of the importance of behaving as advocates in their future careers, is this enough to enable them to fulfil this role effectively? Literature suggests that in order to be truly socially accountable that **medical schools must provide formal teaching in advocacy in order to sufficiently prepare students to fulfil this role (Dharamsi et al., 2010b, Duvivier and Stull, 2011, Dharamsi et al., 2011, Dharamsi et al., 2010a). However, these** students reported (or did not recognise) such formal training, instead attributing their recognition of the significance of the role to clinical experiences and role-modelling doctors. This illustrates a lack of recognition of the implicit or potentially hidden curriculum within such an integrated course design. It is impossible to know if this implicit teaching described by students is sufficient in creating effective advocates of the future, **as there is of yet no reliable or valid assessment or evaluation of for these parameters of medical training in place.** However, the recent Francis report in the UK would suggest that at present advocacy training within health care professionals' training and the nurturing of their altruistic values is not sufficient (Francis, 2010).

As suggested within the literature, Leeds Medical School has made efforts to integrate the curriculum within the community, thus endeavouring to encourage students to feel both part of the community and thus more likely to stay in the local area after graduation, thereby contributing to the institution's social accountability (Dauphinee, 1992). Students expressed beliefs that whilst

efforts such as community placements and patients as teachers were effective at raising awareness of local health needs, these experiences appeared not effective at raising their perception of a personal responsibility for this community. The same was also true regarding international electives; those students who had undertaken an international elective expressed an increased awareness of global health needs but sadly it did not appear the experience had increased their concern regarding a longer term obligation. This may of course relate to the fact that as undergraduates, these students are less likely to either have finalised their ultimate specialty or likely longer term practice location. Nonetheless these students perceived that their undergraduate training was unlikely to influence or encourage them to stay and work in the local area, as many expressed intent to move away from the region after graduation. Additionally, although some students felt an obligation to stay and work for the UK NHS for part of their career, the majority of participants also stated that they believed they would consider working abroad for a short period of time, motivated by non-altruistic factors. When the same students also stated that altruism was an essential quality of a medical professional that should be inherent within every student, one has to wonder if what they meant as altruism was in fact simply beneficence and professionalism. Perhaps the most fundamental feature of medical professionalism is fiduciary responsibility to patients, which implies an obligation to act in patients' best medical interests (Glannon and Ross, 2002). Therefore, should it matter if a doctor's motives are not altruistic (i.e. not selfless), if their professional duty to act in the patient's best interest is still adhered to?

There is a significant belief in the literature that altruism within the medical profession is declining (Jones, 2002, Francis, 2010, Coulehan and Williams, 2001)This may be expressed for example, by the general decline in the number of out-of-hours home visits made by primary care practitioners or the more explicit choices now being made by junior doctors in order to achieve a better work-life

balance, both of which can have implications for patient care(Jones, 2002). This was reflected in the findings from this study when students prioritised factors such as quality of life over the impact they could have on health outcomes when considering locations of future practice. Although many of these students believed that it was not the duty of the medical school to actively nurture altruism, surely neither is it their duty to inhibit students' altruistic motives and enthusiasm for learning, however unintentionally, which was a perception reported by a number of these students, and will need further exploration.

Students expressed intrinsic motivating factors for their learning but demonstrated frustration that they considered particularly moves to increased regulation of medical schools outcomes, including a need to evidence competence in stipulated outcomes had a demotivating impact. This was even expressed as a lack of trust for the professionalism of medical students to take responsibility for their own learning (Mu et al., 2011). This frustration was reported to discourage students from pursuing their own independent interests in favour of choosing to do what was easiest to do well in (and achieve higher grades) or necessary to progress. This perceived let down of student by the medical school could perhaps be avoided if more measures were taken to move away from such an outcome driven curriculum to a more socially accountable, impact driven one (Boelen et al., 2012).

However, medical schools are not educational islands but instead form part of an interlinking network which is governed and influenced by policies and higher organisational bodies. These bodies, and the general public, demand evidence of their investment and the quality of medical graduates, in order to assure the stakeholders of health care that they are fit to practice. To do this, governing bodies have produced graduate outcome requirements, such as the GMC's "Tomorrow's

Doctors" (GMC, 2009). Medical students are thus subject to the requirements of such outcome driven processes, and medical schools themselves are complicit in being part of the process where outcomes are required to validate results, and the resultant influences of perceived importance of curricular experiences. When policies and governing bodies demand educational institutions reach constrained outcomes, this inevitable will dictate the approach taken in course design and assessment, with consequences not only on student attitudes as reported in this study, but also on motivation and engagement of teaching staff.

Leeds Medical School, like many others, is now striving to attain greater social accountability both within the institution itself and of its graduates but importantly within the "community they have a mandate to serve"(Boelen and Heck, 1995). Many of the initiatives taken are proposed within the emerging literature as being effective at doing so however so far there is a paucity of evidence for this. Little was known about the effect of initiatives, such as electives and SSCs have on student understanding and engagement with the broader concepts underpinning social accountability and its influence upon their subsequent development. This study has contributed to an enhanced insight into the values that students perceive aspects of their curriculum to influence on their progression into socially accountable professionals. The findings from this study can be triangulated with views of teaching staff and evidence from curriculum planning to help move the institution further towards achieving social accountability.

However, as of yet, there is still no evidence to support that the beliefs and attitudes of students, actually impact how they practice in their future careers, and furthermore that this has any impact on health outcomes**. Whilst this study has limitations, including that the participants did not fully reflect the gender or ethnic background of the student body, despite the invitation to participate**

made open to all students, the implications are of potential importance. More research is needed, including development of assessment methods reflecting the values underpinning social accountability, and even within the accreditation of schools so that requirements for social accountability of medical schools and their graduates can be objectively evaluated (AMEE, 2013).

Academic excellence is an assumed and expected quality of all applicants to medical schools and is only one factor utilised in selection. Increasingly, schools are considering how to evaluate and evidence those values and attitudes of applicants considered underpinning the concepts of a potentially socially accountable practitioner, such as those discussed in this study of altruism, advocacy and awareness of public health needs. This paper has highlighted that despite endeavours taken by Leeds Medical School to identify and select their students demonstrating these qualities prior to entry to university, the experience during training has resulting in a declared perception amongst this study cohort that students at the brink of graduation into the medical professional no longer possess the same strength of values that they once did. There is always a difficulty in achieving a balance of effective teaching and training of medical students in those key aspects of knowledge and skill required for practice, whilst fostering their altruistic beliefs and values. This research has highlighted that students do not yet perceive this to have been mastered and that in order for undergraduate medical education to achieve greater social accountability, it is vital that it is revisited and given higher priority.

(word count =5944)

Practice Points

- Medical students reflect limited awareness of the concept of Social Accountability
- Whilst many aspects of the undergraduate training should contribute to acquisition of those key characteristics of social accountability, these would appear to be underdeveloped and not recognised by students
- Although medical students did not perceive many of the attributes of a socially accountable professional to be a requisite of their current role, they did identify the importance of qualities such as advocacy in their future professional careers.
- The challenge to medical schools to embed social accountability concepts within graduates requires addressing not only curricular content but also educational approach

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Notes on contributors

Marie Louise McCrea, BSc, is a medical student at University of Leeds. She undertook this research as part of her intercalated BSc in Medical Education (for which she was awarded first class honours). She has developed an interest in the concept of Social Accountability and intends to pursue this after graduation.

Deborah Murdoch-Eaton, MBBS, MD, FRCPCH, is Dean of Medical Education, at The Medical School, University of Sheffield, UK. Her academic interests focus on Global Health, developing students' potential and individuality, embedding Social Accountability within medical education, and role of feedback in the development of learning skills.

Declaration of Interest

The authors report no declarations of interest.

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Figure 1 (ALTERNATIVE 1) – *Clinical placement experiences of student participants by locations of hospitals (TH= main city Teaching Hospital, DGH=District General Hospital , RH=Rural Hospital)*

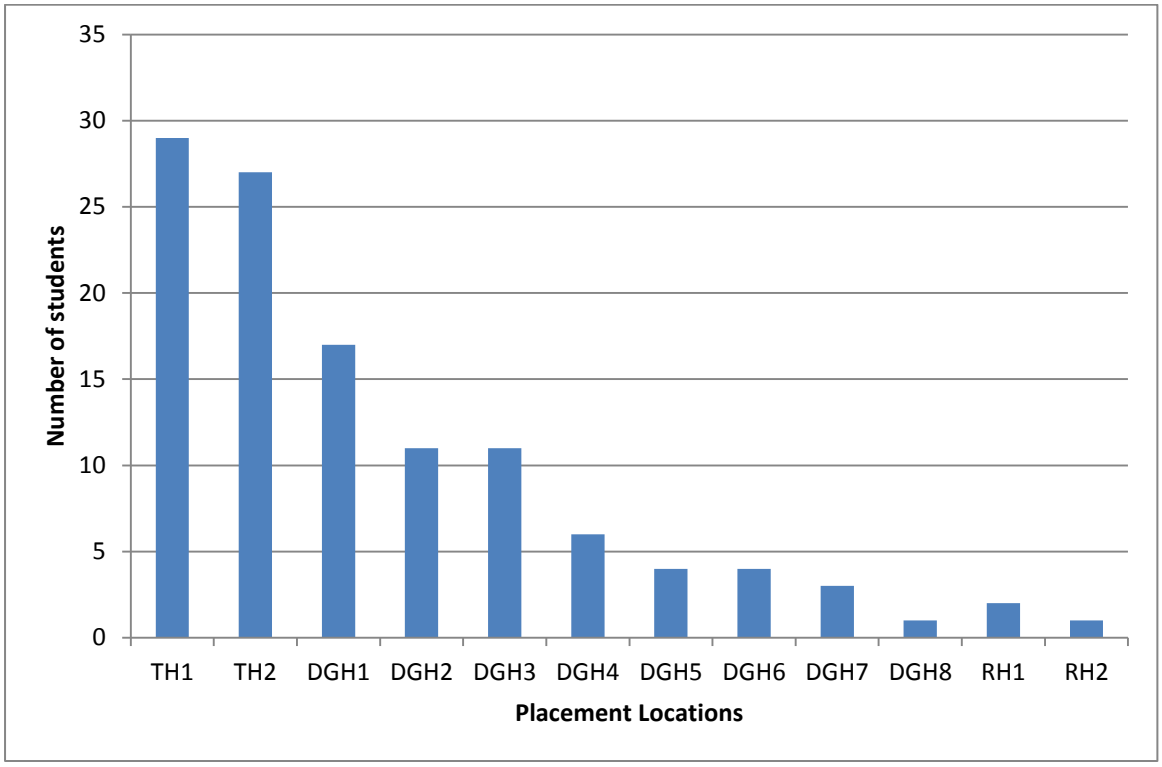

Figure 1 (ALTERNATIVE 2) – *Clinical placement experiences of student participants by locations of hospitals*

TH= main city Teaching Hospital(n=2), DGH=District General Hospital (n=8) , RH=Rural Hospital (n=2)

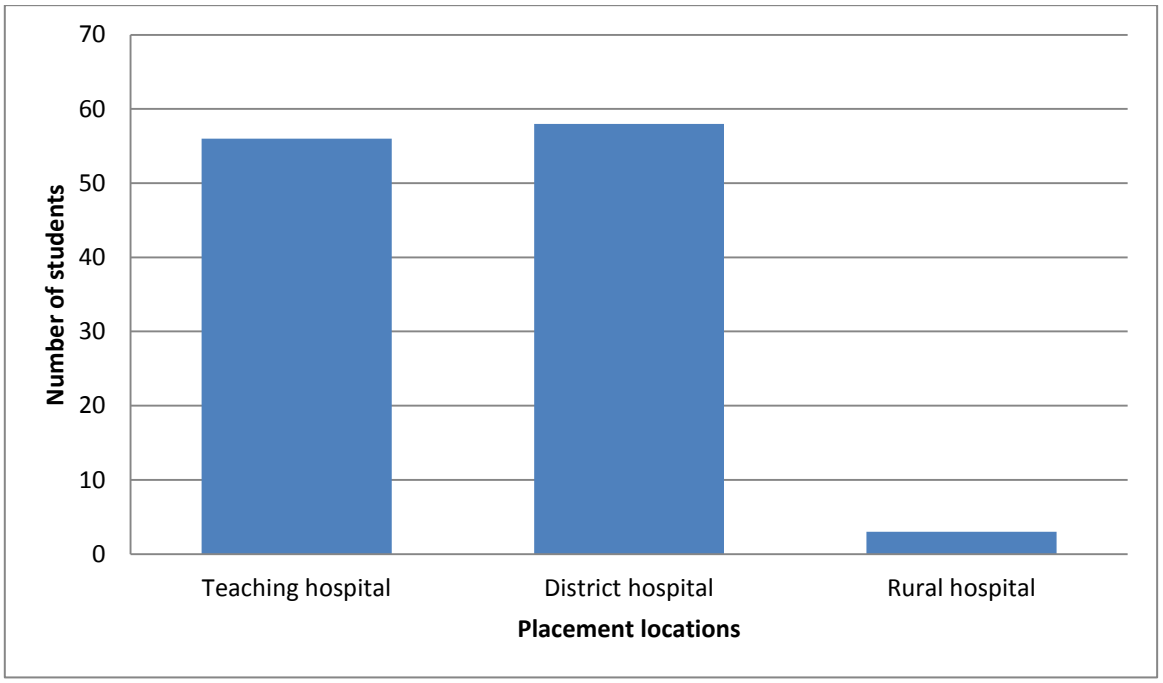

Table 1 – P*articipant background Details*

** Students commencing the medical programme as undergraduates, but took the opportunity of an additional year of study to undertake an intercalated BSc after 3rd year(Approximately 50% of students)*

Criteria	**Number of participants**
Age	
21	1
22	8
23	10
24	7
25	1
26	2
Gender	
Male	14
Female	15
Students with existing university Degree at time of interview	
Yes	16 (13 intercalated *)
No	13
International Elective (outside Europe)	
Yes	10
No	19

Table 2 – *Social Obligation Scale (Boelen et al., 2012)*

	Responsibility	**Responsiveness**	**Accountability**
Social needs identified	Implicitly	Explicitly	Anticipatively
Institutional objectives	Defined by faculty	Inspired by data	Defined with society
Educational programmes	Community orientated	Community based	Contextualised
Quality of graduates	Good practitioners	Meeting criteria professionalism	Health system change agents
Focus of evaluation	Process	Outcome	Impact
Assessors	Internal	External	Health partners