**Medical Student Perceptions of Reflective Practice in the Undergraduate Curriculum**

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**Abstract**

Reflective practice (RP) forms a core component of medical professionalism but despite its documented benefits in shaping future practice, it remains largely undervalued among medical students. Using a phenomenological approach, this study explored medical students’ attitudes and barriers to engagement with RP in the undergraduate Medicine programme at UCL Medical School (UCLMS). All Year 5 medical students (n=361) were approached for this study, with thirteen participants recruited for focus groups. Using the technique of thematic analysis, five key themes emerged around student attitudes to RP. Themes were grouped into three domains: ‘value of RP’, ‘barriers to engagement’ and ‘strategies for enabling RP’. ‘Value of RP’ contained the themes of *humanising medicine and developing empathy, developing professionalism* and *RP as a tool* *for sense-making*. ‘Barriers to engagement’ centred on the perceived *purpose and tokenism of RP* and in the third domain, ‘strategies for enabling RP, the theme of *student agency* emerged strongly. By evaluating student attitudes, this study was first to identify the importance of student co-design of RP tools and also positions RP as having a broader pastoral role. Despite the small sample size, these findings are potentially important in optimising engagement and instilling career-long healthy reflective habits amongst future doctors.

*Words 201*

**Keywords**

Reflection, reflective practice, medical students, professionalism, well-being

**(Words 4981)**

**Introduction**

Reflective Practice (RP) is the process by which thoughts are ‘turned back’ and analysed, with the insight gained used to shape future behaviours and practice (Sandars, 2009). With benefits including enhanced patient care, reducing clinician anxiety and improving wellbeing(Wood, 2016), RP currently forms a core component of all medical students’ and doctors’ professional development. Advocated by the UK medical regulator, the General Medical Council (GMC) promote a suite of reflective opportunities in order to engage a variety of learners and learning styles (GMC, 2022a; GMC, 2019). With critical evaluation benefitting clinicians and patients alike, encouraging its adoption early in the undergraduate curriculum has been shown to aid ongoing engagement in the reflective process (Gishen and Zervos, 2022).

However, with learners’ needs varying significantly, this presents a challenge for medical schools on how best to engage their students in RP (Gishen and Zervos, 2022). While the GMC have published detailed guidance for medical schools (GMC, 2019), scepticism around the process remains high among students, with the so-called ‘soft skills’ (including reflection, communication and empathy) often being unappreciated until they become immersed in clinical practice (Farmer, 2015;150). It has been suggested that this may be due to learning being strongly assessment-driven among medical students and as the ‘soft skills’ can be more challenging to examine in conventional examinations, they may be relegated (Farmer, 2015;150). In addition, there are inherent challenges in assessing reflection within an undergraduate curriculum (Stephen, Higgs and Sugarman, 2001;357). However, with preparation for practice being a key responsibility of medical education (GMC, 2022b), shifting paradigms around the importance of meaningful reflective practice in medicine is crucial for instilling healthy life-long professional practices.

This also comes at a time when the medical profession globally faces unprecedented pressures, with mounting levels of stress, anxiety and burnout being reported by many doctors (Dyrbye, et al, 2006;81). With recent studies suggesting medical students of being at significant risk of stress and burnout (Hill, 2018; 23), encouraging RP remains fundamental to the ‘duty of care’ of medical and clinical educators (Hatem et all, 2011;86). Furthermore, with increasing evidence of the impact of the Covid-19 pandemic in heightening the challenges described above (Chor et al, 2021;700), the need for medical educators to engage with learners to understand what RP is, the barriers to engagement, and strategies for strengthening involvement with RP within the undergraduate curriculum and beyond is vital.

While there is a strong body of literature on reflective practice in medicine and medical education, studies exploring the perspective of the medical learner on RP remains scarce.

The aim of this study was therefore to put the student lens on RP and through this lens of co-production, understand the student perspective for co-designing the reflective curriculum. It was hoped that by stimulating engagement, it would encourage medical students to adopt healthy reflective habits throughout a long and at times, arduous professional career.

**Reflection and Reflective Practices within medical education**

The concept of reflection was described by Dewey in 1933, ‘*as a rigorous, intellectual process generating meaning and personal growth*’ (Dewey, 1933). While the definition has subsequently been researched and explored, in this paper, reflection was considered a form of ‘*systematic enquiry to improve understanding of practice’* (Lucas, 1991). As a key element of Kolb’s learning cycle (Kolb, 1984), reflection, along with a range of other strategies such as debriefing, peer support and establishing effective handovers, has been shown to be a powerful tool for developing resilience in medical practitioners (Mann, 2009). This capacity to function effectively and limit the effects of burnout are vital for clinicians on both a professional and personal level (Gishen et al, 2018).

Within undergraduate medical education, various strategies have been used to enable engagement with RP. Broadly expanded from Schon’s work on reflection in- and on- practice (Schon, 1983), medical students are encouraged to develop an iterative way of thinking, reflecting on clinical situations and subsequently learning from them for improvements in future clinical encounters (Reflective Practice, nd). This includes:

* *Written reflection*

Here individuals are encouraged to consider an experience, with the aim of focusing their thoughts and feelings to create new insights that can guide their future practice (Naber and Makrley, 2017;25).

* *Small-group work and case-based learning*

This can take the form of role-playing or high-fidelity simulation training where each individual is allocated a specific role. By having the opportunity to see how they perform within a safe setting, this can enable individuals to gain multiple perspectives and advance their practice (Khan et al, 2011;33).

* *Inquiry based teaching*

Here individuals are encouraged to look at a problem from multiple perspectives and create new approaches (Gunderman and Kanter, 2009;84). Often used in clinical settings, appropriate role modelling, mentorship and providing constructive feedback have all been shown to be important in inquiry-based teaching (Spear-Ellinwood, nd).

**Challenges to Reflective Practice**

Despite the recognised role and importance of RP, low engagement remains a persistent issue within the undergraduate medical programme (Lempp, 2004;329). While unclear aims and a lack of integration within the curriculum have been suggested as attributing factors (Lempp, 2004;329), the role of organisational and cultural factors in both encouraging and devaluing reflection are also well recognised(Sandars, 2009). Crucially, the impact of ‘negative’ role modelling has been suggested to affect how medical students view reflection and subsequently develop their own coping strategies (Sandars, 2009).

Relatively recent events in the UK surrounding the high profile Bawa-Garba medicolegal case, where a trainee doctor’s written reflections were subpoenaed as evidence in a manslaughter case, have led to deep insecurities among practicing clinicians and medical students on how their reflections could be used as evidence against them Dyer and Cohen, 2008;360; Medisaukaite et al, 2021;11). These concerns continue to endure, with three out of four doctors acknowledging in a 2018 survey by the British Medical Association (BMA) (2018) that they had reduced the amount of written reflection in their professional portfolio, as a result of insecurities generated by the Bawa-Garba case (Furmedge, 2016;353). Despite updated guidance from the GMC on RP (GMC, 2021), over half of the doctors surveyed also acknowledged how they did not create time for professional development (BMA, 2018).One legacy of this seminal case appears to be that the ability to reflect in a perceived safe and positive manner has been negatively impacted.

**Reflective Practice at University College London Medical School (UCLMS)**

The UCLMS MBBS (Bachelor of Medicine, Bachelor of Surgery) curriculum consists of a six-year programme, split between ‘pre-clinical’ (Year 1-2: Foundations of Clinical Science), an integrated Bachelor of Science (Year 3) and ‘clinical’ years (Year 4-6, based in clinical placements). Adhering to the blueprint developed by the GMC5, a range of RP activities have been incorporated into the ‘Professionalism’ module, as part of the vertical teaching strand: Clinical and Professional Practice (CPP) (Table 1- Summary of Mandatory and Optional Reflective Practice Learning in the UCLMS MBBS Curriculum).

**Table 1- Summary of Mandatory and Optional Reflective Practice Learning in the UCLMS MBBS Curriculum**

|  |  |
| --- | --- |
| **MBBS Year Group** | page19image36011216**Reflective** **Learning Opportunities** |
| Year 1 and 2 | *Mandatory:*   * Small group discussion * 7-9 short portfolio reflective assignments based on early patient contact * Short written reflections on clinical encounters |
| Year 3 (iBSc) | No formal reflective practice |
| Year 4 | *Mandatory:*   * Two written assignments. 500-1000 words, unstructured * Reflection on Supervised Learning Events   *Optional:*   * Balint groups * Student psychotherapy scheme * Schwartz Round |
| Year 5  page19image35917088page19image63123456 | *Mandatory:*   * Three written reflections required for end of module ‘sign off’ * Reflection on Supervised Learning Events   *Optional:*   * Schwartz Round |
| Year 6 | *Mandatory:*   * Reflection on Supervised Learning Events   *Optional:*  • Schwartz Round |

This draws on the pedagogical principles of spiral learning, with increasingly complex material layered and advanced throughout the course. With the role of the ‘teacher’ recognised as being central in encouraging students to develop RP skills (Aronson, 2011;22), all students are required to participate insmall group work led by trained clinical facilitators in the pre-clinical years of the UCLMS MBBS Programme. Other compulsory activities include the completion of marked reflective assignments across the undergraduate programme. However, participation in other forms of RP such as Schwartz Roundsand Balint groups in the clinical years remains voluntary.

Pioneered by the Schwartz Center for Compassionate Care (SCCC) in Boston, Massachusetts, Schwartz Rounds provide a structured forum for healthcare professionals, both clinical and non-clinical, to come together and discuss the social and emotional aspects of working in healthcare (The Point of Care Foundation, nd). Normally centred on a particular theme, trained facilitators guide the discussion, which focuses on the experience and impact of providing care, rather than on the clinical aspect of the patient’s story (Maben et al, 2021;709). By providing a safe and confidential place and time for reflection, Schwartz Rounds have been shown to strengthen the patient-caregiver relationship by enhancing staff empathy (Health Education England, 2019). UCLMS was the first Higher Education Institution (HEI) to use Schwartz Rounds for healthcare learners in 2015. Subsequently, Schwartz Rounds have been incorporated into curricula in around 20 HEIs, for a range of healthcare learners (including medicine, nursing, dentistry). While Schwartz Rounds feature predominantly in secondary care, Balint groups are often used within primary care to explore the impact of patient care. Originally described by Michael Balint in the 1950s, here a group of clinicians are encouraged to share a case presentation, with the facilitator once again guiding and focusing the discussion on the doctor-patient relationship and the emotional labour around caring for patients (The Balint Society, nd).

Despite RP being recognised as core to professionalism (GMC, 2022), this appeared to be disconcordant with students’ perceptions of the value of RP at UCLMS. While data gathered from Student Evaluation Questionnaires (SEQs) showed that many students did not appear to view RP as an important aspect of their curriculum. Data triangulated from other sources, including the 2016 Staff-Student Consultative Committees, also identified that small group work was the most preferred method for ‘teaching’ RP among students. Interestingly, a student led survey in 2019, undertaken with faculty support, further demonstrated how many students resented having their personal reflections marked and graded (Lalani et al, 2019).

*‘Many of us also feel that reflection is personal, subjective and does not lend itself to grading. Receiving a low grade can be demoralising and can imply that the student has reflected ‘incorrectly’, which many students find inappropriate. I can also see how fulfilling specific grading criteria may encourage contrived writing at the expense of genuine reflection.’*

Based on these findings, it was recognised that there was a need to optimise students’ reflective learning experiences and to address this, a ‘dynamic curriculum review’ of the reflective curriculum and reflective practice opportunities was proposed at UCLMS (Curriculum Review, nd). By critically examining curricular opportunities, this study aimed to explore students’ attitudes towards RP, with the objective of maximising engagement within the undergraduate MBBS Programme. Led by a senior clinical academic with a background in medical education, this study was undertaken as part of a Doctoral research project in 2018-19.

**Methods**

This study was undertaken by the Principal Researcher, FG, as part of an Institution Focused Study (IFS) in Year 2 of the UCL Doctor of Education (EdD) programme. Ethical approval was gained from UCL Institute of Education Research Ethics Committee (REC).

Methodology

A phenomenological approach (Laverty, 2003;2) was adopted for this study, as a key aspect was to ensure that the experiences and interpretation of the reflective components in the curriculum by the medical students were explored and interpreted. Originally described by Husserl at the start of the 20th Century, phenomenology considers individuals’ lived experiences and intentionality, acknowledging that every encounter is framed by their background or situatedness in society and history (First Philosophy, 1923/24). Presently, many different sub-types of phenomenology are described in the literature and for this study, Hermeneutic Phenomenology (HP), which explores the interpretative structures of experiences between participants, researcher and the real world, was used (Smith, 2018).

Participants

It was important that for this study participants had been exposed to all the reflective activities available in the curriculum and therefore, only senior Year 5 medical students (n=361) were invited to take part. Having first been signposted to this activity at a Schwartz Round, Year 5 students received an invitation to participate via the virtual learning environment, Moodle. If they responded affirmatively, they were then sent an information sheet outlining the aims and objectives of the study (Appendix A- Participant Information Sheet).

Altogether thirteen medical student participants were recruited to two focus groups (six males and seven females) and a consent form was signed prior to the focus groups being conducted (Appendix B- Consent Form). Participants were identified as either Unidentified Female (UF) or Unidentified Male (UM) in the transcript to enable researchers to explore potential gender differences when discussing certain themes.

Data Collection

The method of data collection in this study was through focus group discussion. This was held prior to the summative exams near the end of the academic year in May 2018 to ensure that all aspects of students’ current RP curricula had been completed. The group was facilitated by a final year UCLMS medical student, as it was recognised that students would likely feel more comfortable discussing aspects of the curriculum with a fellow peer than with a senior faculty member. The facilitator received training prior to undertaking the focus group from the Principal Researcher.

A pre-determined schedule was used to guide the focus group discussion around reflective practice (Appendix C- Reflective Practice Focus Group Schedule). The schedule was previously piloted on a Clinical Teaching Fellow to check that appropriate questions and timings of focus groups were feasible. Six to twelve participants are typically recommended for a focus group (Stewart, 2015). The focus groups lasted around 60 minutes and these were audio recorded before being transcribed using an external transcription service.

Data Analysis

Reflective Thematic Analysis (RTA) was used for data analysis and was undertaken by the Principal Researcher and the trained facilitator. Originally described by Braun and Clarke (2006), here the data were coded initially ‘line by line’ before being grouped into themes. Both coding frameworks were then compared between the Principal Researcher and student facilitator to ensure congruence in how the data had been interpretated.

This technique of triangulation is widely recognised in the literature as a crucial step for ensuring robustness (Duffy, 1987). Member-checking of the preliminary data analysis with one of the participants from the focus group discussion was also undertaken to gauge whether this evaluation reflected the student voice (Carlson, 2010).

**Results**

Five major themes emerged from this study, which were grouped into three domains: *value of RP, barriers to engagement with RP* and *strategies to enable RP* (Table 2-Medical student’s attitudes to RP) .

|  |  |
| --- | --- |
| **Domain** | **Themes** |
| Values of RP | Humanizing medicine and developing empathy |
| Nurturing professionalism & developing criticality |
| A tool for sense making & promoting social justice |
| Barriers to engagement | Troubling purpose and tokenism of RP |
| Strategies to enable RP | Student Agency in the RP Curriculum |

**Table 2- Medical student’s attitudes to RP**

These key themes, along their relevant domains will be explored in greater depth below, with all direct quotations from participants identified as either Unidentified Female (UF) or Unidentified Male (UM).

Value of RP

It was clear that the emotional impact of working in a clinical environment was significant and for most participants, the first time they encountered challenging and sick patients. With many acknowledging that they had not fully appreciated the impact and at times, the ‘moral injury’ (Murray et al, 2018;35) associated with patient care prior to undertaking their clinical placements; RP had acted as a tool to enable them to understand and relate to the patient experience.

*‘Overall, I think RP has been a way to reconnect and reconfigure my relationships to patients - it allows me to see them both as people, diseases and bodies, and helps me understand how these three entities interact.’ (UM)*

The role of RP *in humanizing medicine and developing empathy* appeared to be particularly important when encountering terminally ill patients, with participants describing how it made me them think about how they would behave and practice in the future when faced with such a scenario.

*‘The first time I saw a patient, they were crying for hours and you just don't know what to do with that, and so you have to reflect. Reflection should help us pre-think that situation – what could I do in that situation or even afterwards?’ (UF)*

It appeared that these experiences were also particularly profound for participants, as it challenged their sense of security and made them question their role within the clinical environment, where they often felt unsure of their own abilities and the expectations placed on them. In this regard, the concept of RP as a learning and self-development tool for *nurturing professionalism & developing criticality* as an individual featured prominently in the focus group discussions,

*‘[RP] is useful because it means that you get better and it’s all about improvement and providing the best service of care for your patients rather than just being complacent and continuing doing the things that you do.’ (UM)*

*‘I think I became more reflective in what I do because a) my own health reasons, b) because I have looked at the way I’ve studied and think how it is more effective, how can I make it better, so I’ve got more time to do other things.’ (UF)*

Many participants felt this degree of self-reflexivity was crucial for aiding their growth both as an individual and professionally. However, it was acknowledged by several participants that RP was not just for self-improvement but also acted as a *tool for sense-making*,enabling students to look out for each other and make sense of difficult situations.

*‘And I think because you see the patients and you see what they’re going through … how are they coping with things? And how are they not coping with things? And then also you see your friends as well, are they incurring difficulties? By learning about reflective practice…. you can help others as well.’ (UF)*

Among the participants, it was clear that RP had been invaluable in helping them to understand and process the emotional burden of looking after sick patients. More importantly, it engendered empathy and camaraderie, enabling them to better support each other through their shared experiences. By fostering a supportive learning environment, participants highlighted how RP had helped them to consider what was the ‘right’ thing to do, especially in regard to maintaining their own well-being in these situations.

Barriers to engagement with RP

While participants highlighted the value of RP, it was equally apparent that this had not been fully appreciated until they had been exposed to the clinical environment, which at UCLMS predominantly occurs from Year 4 onwards.

*‘…(When) you first go into a hospital, people start dying around you for the first time, you start seeing really dire circumstances and real humans suffering for the first time, and we don't get any lectures about that and we don't get enough preparation for that’ (UF)*

As a result, participants felt neither the purpose, nor the importance, of engaging with RP was fully understood in the early, pre-clinical years. Unsurprisingly, many participants highlighted how at this stage, RP was considered a futile exercise, lacking both coherence and relevance to the undergraduate programme,

*‘[RP] was relatively out of the blue and quite disconnected from the rest of our teaching’ (UM)*

*‘I thought that a lot of the times that the Medical School make us do reflective practice, and a lot of the time it’s met with despair – a bit like, oh my God, why do we have to do this?’ (UF)*

While the purpose of RP was not fully understood in the early, pre-clinical years, it also appeared that engagement with certain formats of RP, including written reflections and the completion of the compulsory portfolio assignments were particularly problematic. Despite written reflections being a mandatory requirement across all years of the undergraduate MBBS program, these were often considered of low priority and for many, a ‘*tick-box*’ exercise, compared to directly examinable content in the undergraduate syllabus.

*‘The end goal at the end of the day for the majority of people is ‘I want to pass my final exams, I want to pass my fourth year, fifth year exams’, so then they’ll think, ‘Am I going to spend these next three hours learning about something or doing past questions or three hours writing my [reflective] essay?’’ (UF)*

The low engagement and almost robotic process by which these assignments were completed was also highlighted by several participants,

*‘You’ve got your reflective piece, you’ve left it to the last night... You go, okay what do they want me to say? Have I said it in enough words? Have I mentioned ‘this made me feel’, or ‘on reflection I’… you’re using stock phrases...you have to have the word count.’ (UF)*

The grading of written reflective pieces was particularly contentious, with many participants highlighting how they felt it took away from the essence of reflection and instead became an exercise focused on writing the ‘*right thing*’:

*‘You learn a formula for reflecting, and you get to this spot where you’re not reflecting so much as you’re ‘performing’ reflection… you’re distanced from actually engaging your feelings – you take real events that have happened and then you create feelings around them.’ (UM)*

It was also highlighted that the quality or depth of reflection was open to bias between individual markers thereby reducing for many participants, the inherent value of RP.

*‘We were given certain grades and to me, when someone gives me a grade on my reflection, I just think it’s quite inappropriate. I don't think that people should grade my feelings or how I feel about certain things.’ (UM)*

While the perceived tokenistic element of RP formed one of the main barriers for student engagement, students’ insecurities about how these private reflections could be used also emerged during the focus group discussions.

*‘I think the implication from a lot of the way we’re fed reflective practice stuff, that there is a right way to reflect and a wrong way to reflect is problematic’ (UM)*

Participants appeared guarded about documenting their reflections and expressed their concerns that they could be used for ‘*political*’ or ‘*punitive*’ purposes. It was suggested that these anxieties had ‘*filtered down*’ from practicing clinicians, affecting their subsequent engagement with RP and in particular, written formats of RP.

It was clear that despite the benefits of RP being recognised by all participants, one of the principal barriers to student engagement related to the perceived lack of relevance in the pre-clinical years. Moreover, perceptions regarding the usefulness of RP, especially in regard to written reflective pieces and the grading of such assignments appeared equally important in affecting how students engaged in the reflective process.

Strategies to enable RP

It was clear that despite participants recognizing the benefits of RP, they did not feel it was consistently and optimally used in a student-centered way. Instead, employing the techniques of RP in a broader capacity, within a more supportive and pastoral context, was highlighted by several participants,

*‘Why can’t you be asked to reflect about things that are happening in your life as a student and your professional relationships and your relationships with your tutors or something? I think that would be much more organic than having quite a forced clinical experience, and having to force reflection on there?’ (UF)*

It was considered that utilising RP for everyday experiences that students could relate to, would enable engagement and lead to a more honest and in-depth reflection, especially at the start of the undergraduate training. The constructive element of informally engaging with RP was also acknowledged as being important:

*‘So, you have a terrible experience with something, something ridiculous happens on a placement or on a ward or something and you go back and discuss it. This happened today…XYZ happened; that is in its own way a reflective practice in that small group because you and two other people over dinner or drinks or something, so it’s not necessarily like everyone doesn’t reflect.’ (UM)*

However, linking this together was the notion of having senior medical students guiding RP learning and role modelling. This was one of the key strategies that emerged during the focus group discussion for enabling engagement in RP.

*‘With the fourth years you get the idea that you’re guiding them as well and people like teaching, people like sharing their experience especially with someone who is going to be going down that path themselves.’ (UF)*

This idea of having someone relatable or a near-peer facilitating reflective experiences was considered by many of the participants as following a more natural format than those currently incorporated into the curriculum. Unsurprisingly, non-written formats of RP were also typically viewed more favourably for enabling genuine reflection compared to written options,

*‘The Schwartz Round was really interesting, and it was like someone else said, it was a very different style to what we normally do, and I did a Balint group and that really changed how I interacted in my medical placements.’ (UM)*

This may in part be explained by the concerns that students had on how their written reflections could potentially be used against them in medicolegal circumstances, as highlighted in the previous domain examining the barriers to engagement with RP.

It was clear during the focus group discussions that many of the participants felt that contextualizing how RP was used in the pre-clinical years and making it more relatable was vital for nurturing RP at an early stage. Having RP facilitated throughout the undergraduate curriculum by senior students, or near-peers, was highlighted as key to meaningfully engaging with RP.

**Discussion**

By exploring medical students’ perceptions around reflective practice in the undergraduate curriculum, this study was innovative in identifying the perceived values, barriers and strategies for enabling student engagement with RP. While it was clear that the students had begun to appreciate the value of RP in the latter years, following patient interaction during their clinical placements and gaining exposure to the human effects of illness, overall attitudes towards written formats of RP remained largely negative. However, a more novel perspective on how engagement could be maximized at an early stage in medical education through the co-production of the reflective curriculum was identified through this study. Importantly, it highlighted that reframing RP in a more student-centered way, involving senior students and being more explicit about its purpose, especially in the pre-clinical years, was fundamental to addressing the barriers to engagement.

While this element of staff-student partnership has been recognised within the literature for driving meaningful changes within medical education (Bilodeau et al, 2019), it requires a collaborative approach based on a shared understanding between clinical teachers and learners. Therefore, ensuring equity in this partnership is vital not only in the implementation of new curricular activities but also to ensure its ongoing relevance to students within the undergraduate programme (Parson, 2005). While insight into how the reflective curricula can be shaped by this partnership is currently limited, with participants in this study echoing similar concerns to that of practicing clinicians, identifying how medical educators can continue to nurture medical students to be the caring and empathetic doctors of tomorrow remains key.

Despite some interesting insights from this study, its limitations should be recognised. Data was gathered from a relatively small number of students and with thirteen out of a potential 361 participants recruited for this study, the data is vulnerable to selection bias and may not be fully representative of the cohort. It should also be acknowledged that data was only gathered from Year 5 medical students from a single UK medical school: again, potentially limiting the transferability and validity of the findings. Year 6 students may also have had valuable insights but were considered too close to their final (qualifying) examinations to be asked to participate. While no difference in perceptions demonstrated between the male and female participants, a larger study across a broader selection of medical schools and students may provide further insight in this field. In addition, the inherent issues associated with conducting ‘insider researcher’ by the Principal Researcher, FG, should also be considered. Although the effects associated with this cannot be eliminated, this was minimized by having a student facilitator lead the focus groups and member-checking the data analysis alongside a study participant.

The implications of this study within the sphere of the medical education and in particular, the undergraduate curriculum, is interesting. It is apparent that the ‘soft skills’ such as empathy, communication and professionalism are underrated by many medical students compared to the ‘hard science’ that they learn. This is in part due to the latter being more straightforward to examine in conventional assessments, such as multiple-choice questions. Furthermore, with the medical school environment tending to be competitive and assessment-driven, until assessments truly test the ‘soft skills’ on a par with the hard science, this paradigm will be challenging to shift.

Nevertheless, engendering professional values and behaviours in our future doctors and equipping them with the ability to harness RP is vital for developing their empathy, resilience and wellbeing. By undertaking this ‘dynamic curriculum review’, this study identified the need for student agency in broadening the social and pastoral context of RP within the undergraduate curriculum. This will ensure that medical students are prepared for the realities of the workplace whilst also continuing to uphold professional standards.

**Conclusion**

Optimising engagement in Reflective Practice among medical students is crucial for encouraging its adoption in professional practice. While the benefits of RP are well recognised, this study provided a novel insight of the student perspective and the importance of co-creation and student agency to its uptake. With the ever increasing emotional and psychological burden being placed on healthcare professionals, ensuring that we instil good practices and empower students to engage in reflective practice at an early stage of undergraduate training is vital for the wellbeing and retention of our future workforce.

**Abbreviations**

BMA British Medical Association

CPP Clinical and Professional Practice

EdD Doctor of Education

GMC General Medical Council

HEI Higher Education Institution

IFS Institution Focused Study

MBBS Bachelor of Medicine and Surgery

REC Research Ethics Committee

RP Reflective Practice

SEQs Student Evaluation Questionnaires

UCL University College London

UCLMS University College London Medical School

**Ethics Approval**

This study was undertaken by the Principal Researcher, FG, as part of an Institution Focused Study (IFS) in Year 2 of the UCL Doctor of Education (EdD) programme. The author, FG , declares that research ethics for this article was provided by UCL Institute of Education Research Ethics Committee (REC). The author, FG declares that research participants informed consent to publication of findings was secured prior to publication.

**Data Availability**

Data are available upon reasonable request.

**Transparency**

I, Faye Gishen as the lead author can confirm that this manuscript is an honest, accurate and transparent account of the study being reported, that no important aspects of the study have been omitted and that any discrepancies from the study have been explained.

**Author’s Contributions**

FG conceived and designed the study. LJ led the focus group interviews and developed the coding framework with FG. FG wrote the first draft of this manuscript, with RC contributing to critical revisions before the final draft of the manuscript was approved by both RC and FG for publication.

**Declaration of interest statement**

The authors declare no conflict of interest with this work.

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**Appendices**

1. Participant Information Sheet
2. Consent form
3. Reflective Practice Focus Group Schedule
4. **Participant Information Sheet**

**Examining Student Experiences and Challenges to Engagement with Reflective Practice in the Undergraduate Curriculum at UCL Medical School**

##### **May 2018**

###### I'd like to invite you to take part in a research project I am conducting as part of my doctoral studies at UCL Institute of Education.

###### **Who is conducting the research?**

My name is Dr Faye Gishen and I am inviting you to take in part in my research project; Examining Student Experiences and Challenges to Engagement with Reflective Practice in the Undergraduate Curriculum at UCL Medical School am a clinical academic, which means that as well as being a consultant physician, I am also the Academic Lead for Clinical and Professional Practice at University College London Medical School (UCLMS). I am also a doctoral student (EdD) at UCL. I have done some medical research in my role as a doctor in the past, but this is the first research I am doing educational research (within the social sciences). My research is being funded solely by me, so no other companies or organisations have a vested interest in this.

I am investigating how reflective practice is used in undergraduate medical curricula, focusing specifically on UCLMS at this point in my research. My overall goal is to consider how reflective practice methods used for medical students during their training, may contribute to their future professional practice once qualified.

I very much hope that you would like to take part in a conversational interview. This information sheet will try and answer any frequently asked questions you might have about the project, but please don’t hesitate to contact me if there is anything else you would like to know at f.gishen@ucl.ac.uk.

**Why am I doing this research?**

###### I have an interest in exploring the role of reflective practice in medical students and doctors, and I am hoping that this work may help me start to discover student perceptions of reflective practice and the most effective ways to teach it. My goal is to use your opinions and comments to help me improve the reflective practice curriculum at UCLMS.

###### **Why are you being invited to take part?**

###### I hope to recruit 8-10 fifth year medical students with an interest in discussing reflective practice as part of their medical training and interactions with patients.

###### **What will happen if you choose to take part?**

###### Completion of questionnaires and a focus group will happen at a central London location convenient to the group.I will record (audio) the focus group, which will be conducted by a trained final year UCLMS medical student. He or she will begin by outlining the project, defining reflective practice in this context and outlining instructions for participants. You will then be asked several predetermined questions about your views on reflective practice. There will be no one else present, and when transcribed your answers won’t be attributed to you.

###### Examples of questions that you will be asked are;

Can you briefly tell us a bit about yourself and what brought you to this focus group?

What do you understand by reflective practice and its purpose?

What are your experiences of reflective practice at UCLMS?

Over the last 5 years at medical school, do you think you’ve become more or less reflective and why?

What do you think may be the challenges to engagement with reflective practice?

If you could change one thing about the reflective practice curriculum, what would it be and why does it need changing?

Do you think reflective practice has shaped how you approach patients and if so, how?

Is there anything else we’ve missed?

###### Depending on how the conversation develops, there may be some additional related questions. The answers that you give will be thematically analysed by 2 researchers to allow the commonly occurring themes to emerge.

###### **Will anyone know I have been involved?**

###### This is a confidential study and details of participants will not be made public nor included in the write up of the research which will be a 20,000 word report to be included in my final doctoral thesis. When I write up this research, I may use quotations given by participants, but they will be anonymous. Your personal details will be protected by ensuring your identity is not revealed in my doctoral assignment, final project report or any publication.

###### **Could there be problems for me if I take part?**

###### We may be discussing some sensitive issues, and if you are upset or affected by anything we discuss or feel uncomfortable at any point of the interview, you are entitled to stop at any point, either resuming after a break, or not at all. I can give you details of support options should this need arise. As a participant, you need to know that your answers are confidential, transcribed anonymously and never passed to another party.

###### **What will happen to the results of the research?**

###### As stated above, the interview data that I collect from you will inform the report which will be a 20,000 word report to be included in my doctoral thesis. I can share the report with you if you wish. I will seek your consent on the attached consent form to use your anonymised data in published articles or presentations at academic conferences. Let me know if this is not the case, ideally before the focus group.

###### The focus group data will be stored on an encrypted memory stick, transcribed and transcribed data will be securely stored until the end of my doctorate, for 10 years. Data will not be shared with a third party.

###### **Do I have to take part?**

###### It is entirely up to you whether or not you choose to take part. I hope that if you do choose to be involved then you will find it a valuable experience.

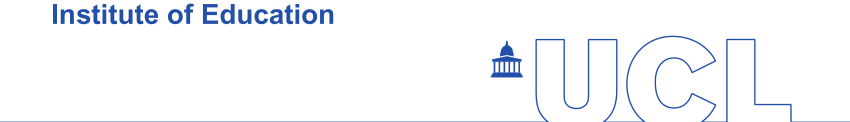
###### **If you would like to be involved, please send a short statement outlining your interest in the project to** [f.gishen@ucl.ac.uk](mailto:f.gishen@ucl.ac.uk) **by 1st May 2018. We will go through and sign the consent form when we meet for the focus group, and I attach a blank version for your information.**

###### **If you have any further questions before you decide whether to take part, you can reach me at f.gishen@ucl.ac.uk. I am happy to speak about the study in person or on the telephone if you have any questions.**

###### **This project has been reviewed and approved by the UCL IOE Research Ethics Committee**

###### **Thank you very much for taking the time to read this information sheet.**

1. **Consent form**



**Examining Student Experiences and Challenges to Engagement with Reflective Practice in the Undergraduate Curriculum at UCL Medical Scholl**

##### **UCL Institute of Education**

##### 20 Bedford Way, London WC1H 0AL

##### +44 (0)20 7612 6000 | enquiries@ioe.ac.uk | www.ucl.ac.uk/ioe

**May 2018**

If you are happy to participate, please complete this consent form and return to [f.gishen@ucl.ac.uk](mailto:f.gishen@ucl.ac.uk) by 1st May 2018

##### Yes No

I have read and understood the information leaflet about the research

I agree to be interviewed as outlined on the information sheet

I am happy for my interview to be audio recorded and transcribed

I understand that if any of my words are used in reports or presentations, they will not be attributed to me

I understand that I can withdraw from the project at any time, and that if I choose to do this, any data I have contributed will not be used

I understand that I can contact Dr Faye Gishen at any time at f.gishen@ucl.ac.uk I understand the findings from my interview will be written up as a 20,000-word report and that my name and identity will not be revealed. The report will be submitted to UCL Institute of Education as part of Dr Faye Gishen’s studies towards Doctor of Education (EdD).

##### Macintosh HD:Users:fiona:Desktop:UCL Handover:WORKING:UCL IOE:IoE_logos_2:UCL_IOElogos:IoE_outline_portrait.eps

I understand the findings from my interview may be written up as an academic paper for publication or shared in a presentation at conference and that my name and identity will not be revealed.

##### ---------------------------------------------------------------------------------------------------------------

##### Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

##### Signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

##### Date

##### Researcher’s name \_\_\_\_\_\_\_\_\_\_\_\_\_\_

##### Signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

##### Date

1. **Reflective Practice Focus Group Schedule**



**Introduction for participants**

Thank you for attending this focus group. The aim of this session is to find out student opinions on the nature and role of reflective practice within the UCLMS curriculum. The overall aim of our evaluation is to make recommendations for designing the reflective practice curriculum in a student-centred way and so your opinions, as students who have gone through almost the whole curriculum, are very important. We expect the focus group to last around 60 minutes. We will be asking questions for the group to discuss. We may ask follow-up questions to clarify anything you’ve said.

**Instructions for the facilitator:** the majority of interaction should be between focus group participants and not the facilitator. Facilitators can re-direct the conversation if felt to be going off topic and ask clarifying questions. At the end of each section it may also be helpful to summarise what has been said back to the group. The majority of the time should be spent dis- cussing key questions below (around 10 minutes per question).

**Opening question:**

Can you briefly tell us a bit about yourself and what brought you to this focus group?

**Introduction:**

What do you understand by reflective practice and its purpose?

**Key questions:**

Can you describe your reflective practice and how it has been taught?

Over the last 5 years at medical school, do you think you’ve become more or less reflective and why?

What do you think may be the barriers to engaging with reflective practice?

If you could change one thing about the reflective practice curriculum, what would it be and why does it need changing?

**Closing**:  
Is there anything else we’ve missed?

**Tables**

**Table 1- Summary of Mandatory and Optional Reflective Practice Learning in the UCL MBBS Curriculum**

|  |  |
| --- | --- |
| **MBBS Year Group** | page19image36011216**Reflective** **Learning Opportunities** |
| Year 1 and 2 | *Mandatory:*   * Small group discussion * 7-9 short portfolio reflective assignments based on early patient contact * Short written reflections on clinical encounters |
| Year 3 (iBSc) | No formal reflective practice |
| Year 4 | *Mandatory:*   * Two written assignments. 500-1000 words, unstructured * Reflection on Supervised Learning Events   *Optional:*   * Balint groups * Student psychotherapy scheme * Schwartz Round |
| Year 5  page19image35917088page19image63123456 | *Mandatory:*   * Three written reflections required for end of module ‘sign off’ * Reflection on Supervised Learning Events   *Optional:*   * Schwartz Round |
| Year 6 | *Mandatory:*   * Reflection on Supervised Learning Events   *Optional:*  • Schwartz Round |

|  |  |
| --- | --- |
| **Domain** | **Themes** |
| Values of RP | Humanizing medicine and developing empathy |
| Nurturing professionalism & developing criticality |
| A tool for sense making & promoting social justice |
| Barriers to engagement | Troubling purpose and tokenism of RP |
| Strategies to enable RP | Student Agency in the RP Curriculum |

**Table 2- Medical student attitudes to RP**