

Challenges in experiential learning during transition to clinical practice: a comparative analysis of reflective writing assignments during general practice, paediatrics and psychiatry clerkships.

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TITLE PAGE

'Challenges in Experiential Learning during transition to clinical practice : A comparative analysis of reflective writing assignments during General Practice, Paediatrics and Psychiatry clerkships'

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ABSTRACT (200 words)

Introduction

This study explored the reflective writing (RW) of senior medical students across a co-ordinated reflection education programme in General Practice, Paediatrics and Psychiatry clerkships during their transition to clinical clerkships. The study compared RW themes from within and across three clerkships in order to understand the influence clerkships had on experiential learning and developing professional identity.

Methods

All medical students in their penultimate year were invited to participate in the study. 135 reflection assignments were analysed. A qualitative thematic analysis of students' RW was performed. An inductive approach was used and data saturation was achieved.

Results

Clerkship specific themes were the intimacy of the experience in General Practice, the powerlessness students felt and the challenge of delivering family centred care in Paediatrics and the sense of perceived risk in Psychiatry. Common themes across the three clerkships were of emotional struggles in developing a professional identity.

Conclusion

There is an educational need for developmental space for students during General Practice, greater focus on preparing students for relationship building during Paediatrics and addressing stigma and personal safety issues in students during the Psychiatry clerkships. Across clerkships there is a need for better use of evidence based pedagogies to support emotional development.

PRACTICE POINTS

- 1. This research highlights the need for clerkship specific as well as general experiential based learning frameworks in undergraduate medical education.
- 2. Appreciation of intensity of General Practice clerkship for students compared to other clerkships particularly when transitioning to clinical practice. Confirms the need for developmental space for students during this clerkship.
- 3. Increased awareness of how powerless students feel in the complex environment of the Paediatrics clerkship. Need for better training for students and faculty in family-centred care.
- 4. Recognition of how stigma may affect students at the start of their Psychiatry clerkship and the need for this and their safety concerns in the clerkship to be addressed.
- 5. Across all clerkships, the need for use of evidence based pedagogies eg interactive reflective writing and experiential learning frameworks to support the emotional development and professional identity formation of medical students.

KEYWORDS

Experiential learning: the construction of knowledge and meaning from real-life experience (Yardley et al. 2012b)

'Challenges in experiential learning during transition to clinical practice: A comparative analysis of reflective writing assignments during General Practice, Paediatrics and Psychiatry clerkships'

INTRODUCTION

"Our deepening sense of story will open us to the vastness, the lostness, the uncertainty, and the meanings that unite all who are ill and all of us who do our best to care for them"

(Charon and Hermann 2012)

It has been proposed that encouraging reflection at an undergraduate level allows medical students to explore the complexity of medical care and individual patient interactions in a safe environment (Wald et al. 2019). Previous qualitative analysis has shown that medical student identity is challenged by desired professional identity and difficult clinical interactions (Steinauer et al. 2019). Reflection aims to move students from 'collecting experiences' to actively engaging and growing from these experiences. This is fundamental to the process of professional identity formation, whereby the values and norms of medicine are internalised and individuals make the change from student to physician.

Over time, students' personal and professional identities merge and "the characteristics, values and norms of the medical profession are internalized, resulting in an individual thinking, acting and feeling like a physician" (Cruess et al. 2019). Many professional organisations such as the General Medical Council in the United Kingdom list reflection as one of their core competencies for medical students ((General Medical Council 2016).

The medical career path has been viewed as a series of transitions through challenging, diverse and often complex educational and clinical work contexts. The adjustment for

medical students from a predominantly preclinical classroom experience to a clinical practice learning environment represents the first major transition and has been frequently described as a struggle (Prince et al. 2005; Greenberg and Blatt 2010; Teunissen and Westerman 2011). Studies which have looked at reflective writing during clerkships at this time suggest that uncertainty often prevails and many students find it hard to control their emotions (Dyrbye et al. 2007; Nevalainen et al. 2010). Other studies have shown that medical students' ability to engage in social practice varies as does the level of participation afforded by different workplace environments (Helmich et al. 2012). Identity formation and development is an emotional, cognitive and social experience and occurs at the level of the individual and social environment (Monrouxe 2010).

Now more than ever, it is incumbent on medical educators to support medical students during this transition phase due to growing student numbers, more fragmented clinical teams and rising patient expectations. (Lipsitt 2015) described the unique challenges of 'professionalisation' of medical students which may result in mal-adaptive defensive compensations and impaired professional identity formation. Two recent scoping reviews have argued that the dominant educational perspective in the area of transitions in the literature has tended to conceptualise transitions as problems, or struggles, rather than as challenges with inherent opportunities for personal growth, professional development and more independent practice (Yardley et al. 2018; Atherley et al. 2019). A move beyond preparing students for the struggle of transition towards providing them with transferable learning strategies that may increase their capacity to cope with change has been recommended (Atherley et al. 2019) and was the perspective taken with participants in this study. Experience-based learning pedagogy has also been advanced by medical educators

as a learning methodology to fill the gap between knowledge and practice for students. It emphasises positive capabilities and identities as the desired outcome for medical students through supported participation in practice and reflective learning from real world patient encounters (Dornan T. et al. 2019). Clerkship-specific RW has been shown to help in the personal and professional development of the emerging doctor (Fischer et al. 2008; White 2008). RW on participation in clinical experience helps students better understand the depth and breadth of illness and disease and how to link knowledge with practice. A set of newly published guidelines on how best to support students using experience-based learning (Dornan T. et al. 2019) are assumed to be generally applicable to all clerkships and are not context specific. These guidelines do not address unique contexts within specific clerkships that could affect experiential learning.

Good quality reflective writing is highly context-specific (Boud and Walker 1998) and has been shown to provide a window into professional identity formation (Karnieli-Miller et al. 2010; Sharpless et al. 2015; Shapiro et al. 2016). Could it also be used to identify the challenges encountered by medical students transitioning into specific clerkships and those that are shared between clerkships? This became the point of departure for the present study which builds on existing work in this regard (Dornan T et al. 2009; Berkhout et al. 2017; Steinauer et al. 2019).

The primary aim of this study was to explore issues experienced by students through their RW as they transitioned into General Practice, Paediatrics and Psychiatry clerkships. The secondary aim was to explore the common issues revealed in RW from these same students across these three clerkships. It was hoped that the findings from the study would help faculty positively influence the professional identity formation of medical students and

provide more context for experience-based learning as students' transition into these clerkships.

METHODS

Qualitative research approaches allow for the "development of concepts which help us to understand social phenomena, giving due emphasis to the meanings, experiences and views of participants." (Pope C and Mays 1995). An interpretivist perspective was adopted which recognises that reality is constructed by people within their contexts (Durand and Chantler 2014). This study employed a qualitative study design to analyse senior medical students' reflective writing during their penultimate academic year in a single institution, the Royal College of Surgeons in Ireland (RCSI) medical school in Dublin, Ireland.

In the penultimate academic year in RCSI, students are split into five groups and rotate through General Practice, Paediatrics, Psychiatry, Obstetrics/Gynaecology and Medicine/Surgery in seven-week clerkships. Separate reflection education programmes had been running during General Practice, Paediatric and Psychiatry clerkships prior to this study. All five clinical specialties were invited by a representative from General Practice to collaborate in a co-ordinated reflection education programme to commence at the start of the academic year 2018-19. The Paediatrics and Psychiatry clerkships accepted this invitation. The co-ordinated reflective education programme in this study required students to participate in a two hour reflective writing workshop at the beginning of each of the clerkships in General Practice, Paediatrics and Psychiatry. Students were introduced to RW using Gibbs cycle (Gibbs 1988) and were tasked with writing a 700 word assignment around an incident or experience during the seven-week clerkship that had resonance for

them. The submitted reflective assignment at the end of the clerkship was worth 5% of the overall mark for each of the clerkships.

The research team included clinical lecturers and medical practitioners from the Departments of General Practice, Paediatrics and Psychiatry at RCSI Dublin. These members of the research team were involved in the delivery of the reflection education programme in their own discipline. A lecturer in qualitative methods was involved in the research team to provide methodological advice.

All students (n=328) rotating through their penultimate year of medical school in RCSI were invited to participate in the study in January 2019. Due to the order in which their clerkships fell, 80% of students had participated in one of the reflection workshops in General Practice, Paediatrics or Psychiatry between September and December 2018 while 20% of students in the year group had participated in two of the workshops.

An email providing study information was sent to students in mid-December 2018, two weeks in advance of commencement of Rotation 3. At the start of Rotation 3, a general announcement about the study was made by one of the co-investigators from a department through which students had already rotated and submitted a reflection assignment. Student participation information leaflets and consent forms were then made available to all students via the virtual learning environment for a six-week period. The information leaflet explained that the study involved a thematic analysis (TA) of RW submissions completed during rotations 1 & 2 that had already been graded. As such, involvement in the study had no bearing on the student's individual grade.

A neutral gatekeeper was appointed to compile and de-identify consenting students' reflection assignments. These assignments were uploaded to a secure site to enable analysis to take place. The gatekeeper allocated reflective assignments to members of the research team. Two researchers were allocated to assignments from each discipline of General Practice, Paediatrics and Psychiatry. Researchers were allocated to disciplines that were not their own to ensure distance from the reflections and to get other perspectives on the data.

Reflection assignments were analysed according to Braun and Clarke's six phases of thematic analysis (Braun and Clarke 2006). An inductive approach was used, that is, themes were obtained from the data according to participants' views, not adhering to predetermined themes or frameworks (Pope C. et al. 2000)

Transcripts were read and re-read independently for researchers to familiarise themselves with student reflections. The use of pairs ensured rigour and researcher triangulation (Carter et al. 2014). Having read all reflection assignments in a given discipline, each researcher coded 50% of the reflections in that discipline. Coding was undertaken separately, followed by regular joint meetings of pairs to agree codes and themes. Full research team meetings with contributions from all team members were regularly held to discuss initial findings and to ensure consistency of approach. As each team member contributed to the overall analysis, this worked to include the views of those from within the clerkship to ensure rigour and thoroughness in the analysis (Durand and Chantler 2014).

Codes were created based on line by line analysis of the text. Codes were grouped together into themes within each discipline. Similarities and differences within and between themes were considered (Ritchie et al. 2013). Initial codes were then grouped into semantic themes, and then transferred to higher order latent themes.

Memos were created to assist with analysis. Data saturation was achieved prior to analysing the entire dataset for each discipline, however analysis was continued to ensure further in-depth understanding of the reflections (Saunders et al. 2018). At the final stage of analysis within disciplines, a final checking of raw data with codes and themes was undertaken to ensure that themes were reflective of the data.

One researcher led the inter-discipline analysis of data and recorded similarities and differences of themes between disciplines, at the latent level of analysis (Braun and Clarke 2006). Analysis was conducted using Nvivo 12 software.

Braun and Clarke's (Braun and Clarke 2006)15-point checklist was used at each full team meeting to ensure the analysis remained on track. The Consolidated Criteria for Reporting Qualitative Research checklist (Tong et al. 2007) was used to assist reporting of methods and results. The study was approved by the RCSI Research Ethics Committee (REC1602).

RESULTS

Out of 328 students in the penultimate academic year, 114 consented to participate in the study and 135 reflection assignments were thematically analysed: 60 from Psychiatry; 40 from General Practice and 35 from Paediatrics.

The demographics of participants (36% Irish/EU; 64% other nationalities; 73% undergraduate and 27% graduate entry) broadly matched those of a senior medical year in RCSI.

The detailed semantic themes and latent themes from across the three clerkships are presented in a Supplementary Table (Appendix 1). Clerkship specific themes that emerged were the intimacy of the experience in General Practice, the powerlessness students felt along with the challenge of delivering family centred care in Paediatrics and the heightened sense of perceived risk in Psychiatry. Common themes that emerged across the three clerkships were of professional growing pains.

1) Clerkship specific themes

General Practice

Intimacy of context

Entering the General Practice space created a dynamic in which the student appeared to feel like a privileged guest. This seemed to set the tone for the student's perceptions of subsequent clinical interactions, raising the subjective stakes in relation to task performance.

"As I was so caught up with trying to impress the nurse and by extension the GP...." GP (XN545)

In General Practice, students were allowed practise medicine on the General Practitioner (GP)'s personal patients which made the patients seem like a proxy of the GP. There was a lot of attention focused on the student but they appeared to feel like they had very little latitude or room for failure in the eyes of the GP and the patient.

"The doctor was looking at me as if he was waiting for more answers. I stared back confused having nothing more to add. I felt embarrassed and thought I was failure of a medical student."

GP (DE 685)

The weight of expectations some students seemed to carry and the associated performance anxiety meant that there wasn't much scope for admitting error and failing safely in practice.

"... for the rest of the day, I was thinking about the mistake. I knew that air emboli were serious and life threatening, and was googling IM air injections between patients, and was thus distracted....Afterwards, I was relieved that the GP praised me and seemed not to notice..." GP (YK443)

The continuous apprenticeship relationship with the GP supervisor and the physical confines of the GP clinic meant that there was nowhere for the student to hide

"I felt embarrassed at being scolded for simply answering what I was asked and felt I had let down the GP and the patient. My mind was overwhelmed with thoughts of what I could have said or done differently." GP (SJ587)

The intensity of focus and apprenticeship model in GP appeared to foster transformative learning experiences for some either through observation or supported participation in clinical practice.

"I apologised to the patient and explained to the GP that I was struggling. She assisted me and held her own stethoscope in place allowing me to listen. It took several attempts, however, I finally heard the patient's heart sounds." GP (RG685)

Paediatrics

Powerlessness

Students acknowledged the uniqueness and relative powerlessness of children as patients, who could not always advocate for themselves.

"The patient likely felt intimidated and marginalised by our body language and positioning, standing around her bed and looking only at her father. As a teenager, she is beginning to take control over her life and, by failing to engage her, we denied her some agency in her own healthcare." PAEDS (CE851)

Similarly, an apparent fear of speaking up within the team hierarchy was notable for the students within Paediatrics compared to other clerkships. This mirroring of powerlessness was a theme noted in their engagement style with patients and in the dynamic of communication between doctor, student, patient and family.

"I was frustrated to deal with an angry grandmother and I wondered if I asked the wrong question" PAEDS (ZW539).

There appeared at times a sense of unquestioning deference to senior staff, that to challenge seniority or assert oneself as a student may be perceived as a negative action.

"Despite knowing the mom's concerns about X's symptoms, I did not think it was my place as a student to bring this up with a consultant so I did not mention anything." PAEDS (RN483)

The challenge of family-centred care

Triangulated interactions in Paediatrics and the busy clinical environment brought with them a complexity for students. Students seemed to struggle to balance the demands of interactions with several adults and children while still learning the fundamentals of history taking and examination.

"When I have enough time to fully engage with the patient I will try to remember a patients name and face rather than their differential diagnosis" PAEDS (KY621)

Students described how they had not adequately considered the stress of childhood illness on family and the importance of family-centred care. With experience, students seemed to appreciate the need to holistically treat a child within their unique family make-up and how failing to do this affected optimum patient care.

"Because I was caught up in my history-taking skills, I completely missed the verbal and nonverbal cues that the parent was exhausted and under a lot of stress". PAEDS (ZG694)

Psychiatry

Perceived versus Actual Risk

Many students described anxiety relating to their personal safety; this was unique to the psychiatric reflections. Students, in general, showed a high level of awareness of the issue of societal stigma towards people with mental illness including their own.

"Looking back on the consultation, I believe that it was irrational for me to approach the patient in such a tense manner. This left both the patient and I uncomfortable. I now feel that personal prejudice of psychiatric patients may have been forefront to this behaviour as I am usually comfortable conversing with people." PSYCH (JW697)

Students sometimes ascribed their anxiety to inexperience and discomfort in interacting with patients due to not appearing to know how to communicate in the more volatile psychiatric setting.

"...I was so unused to talking with people who have a mental illness....I was terrified to accidentally say something to the patient that might upset him if he misinterpreted what I actually meant." PSYCH (LH358)

The physical context also seemed to affect the students' perceptions of risk and were frequently referred to by students. Unfamiliar psychiatric inpatient settings including secure environments such as high-observation units with locked doors appeared to cause alarm. In such instances, the student risk perception was clearly valid, as they had been briefed by staff on routine local protocols to ensure their personal safety.

"When we were first given alarms and the key to high-observation unit, I felt a rush of anxiety"
PSYCH (UH342)

However, notwithstanding the students exposure to some patients whose potential risk was real and acknowledged by supervising clinicians, many students seemed motivated in their RW to challenge their own previously held stereotypes and in particular the association of mental illness with violence. There was evidence of a working through of their fears and anxieties in this regard. Some appeared to desensitise to the issue of risk with time and were more comfortable in interactions with patients during the later stages of the psychiatry clerkship, as illustrated in the following extracts.

"I now understand that it was not the patient's intent to hurt or disrespect me rather, it was due to his manic episode and his lack of inhibition over his thoughts and actions that caused him to act that way" PSYCH (TW355)

"I have learned that I need to be less fearful of psychiatric patients in general and particularly those who I am aware have committed crimes in the past. I was fearful of this man's bully-like persona but I should have had more faith that I was safe in the company of my team." PSYCH (LE563)

2) Common theme between all Clerkships

Professional Growing Pains

Role uncertainty seemed to prevail in all three clerkships. Students appeared unable to avoid feeling like a nuisance in their early clinical interactions. Becoming a responsible member of the medical team felt like a long way away. These feelings were heightened during the GP clerkship due to the raised expectations students had of themselves and the perceived high expectations of

others, in this fishbowl-type environment. However when things went well in the midst of this uncertainty, students did seem to appreciate a growth experience.

"My heart broke as he explained his situation. I was concerned for the patient's wellbeing and swayed slightly from the instructions I was given from the GP, as I felt was appropriate. At the back of my mind, I still worried that the GP would be mad that I hadn't finished the questionnaire on time" GP (HX822)

Students knew a little about a lot but appeared to expect themselves to perform at a high level.

They seemed to find reassurance when they were let share in others' clinical insecurities.

"I always felt that breaking bad news is hard. However, I thought that as you become more experienced it gets easier. This proved to be not true. When I saw someone who's as experienced as the consultant struggle with this, it became clear to me that it will never be easy" PAEDS (HX735)

Learning to manage emotion in others was a challenge for students due to their apparent uncertainty as to how to handle them in a professional way. There were many descriptions of students trying to hide their own emotional reactions from patients or staff members. Very few students seemed to get to the point where they recorded getting through these type of interactions with any sort of resolution. This led many students to appear lost during these early clinical encounters.

".... I made a pre-emptive assumption on X's mental health based on her age, appearance and overall demeanour as she entered the room, and based on this did not expect the seriousness of her history. It took me completely by surprise and contributed to my feeling of shock... It being

the first time someone cried for help to me, I felt like I wanted to help but did not know how" GP (ZU733)

Students seemed task-focused in the transition phase from classroom to clinical practice. They used checklists, adhered to scripts and were formulaic in their approach to patients, which appeared to interfere with relationship building.

"I attempted to maintain the basics of patient interaction, but the information I had was limited and ran out. When this happened I was cutting eye contact, stammering, smiling inappropriately and waiting for the time to finish" PSYCH (VX856)

Some students seemed to recognise the failure of this singular approach in their RW. Some students appeared to move from seeing patients as tools for learning to recognising their humanity and individual needs.

"I've also tried to imagine how I'd feel if I was the person answering rather than asking the questions. I've attempted to move away from checklist type questions towards a style of still asking the relevant questions but being guided by the flow of the interview" PSYCH (RJ890)

DISCUSSION

There appeared to be unique challenges in experiential learning to professional identity formation within clerkships as well as common challenges to identity formation across clerkships highlighted in this study. The intimacy of the GP clerkship, the powerlessness and difficulty managing three-way communication in Paediatrics and the element of anxiety and fear running through RW in the Psychiatry clerkship were key findings. Emotional struggles relating to professional growth were the predominant themes raised by students in RW across the three clerkships in this study.

The impact the intense General Practice clerkship had on this group of medical students points towards the powerful influences of the apprenticeship model within a confined space. It may have been coloured by their relative inexperience in a complex clerkship at an early transitional stage of learning (Yardley et al. 2012a). Previous studies have pointed towards the centrality of the relationship between supervisor and student particularly in the General Practice setting (Kilminster and Jolly 2000; Salminen et al. 2016). The consequent sense of personal scrutiny experienced by students in our study seemed to pose particular challenges to their performance and developing professional identity. A Dutch research group created a framework for student learning after group interviews with students about their experience on a General Practice clerkship (van der Zwet et al. 2011). The students in the Dutch study had all completed at least five clerkships before coming to General Practice and mostly thrived under the intense scrutiny therein. Their findings were that students needed developmental space to grow their identity in the General Practice setting. Their recommendations for developmental space included contextual space and socio-emotional space. A case for giving students more socio-emotional space can be made for students based on the findings from the analysis in this study also. The practicality of this suggestion is in doubt, however, in a clinical learning environment which is pressurised, physically confined and in which all of those involved are typically time-constrained. Perhaps the most practical advice is for GP educators to be aware of this particular need and to use an established set of evidence based principles (Dornan T. et al. 2019) to make these clerkships more supportive.

Powerlessness as identified as a theme in this study during the Paediatrics clerkship is unsurprising given the relative inexperience of these students. It emerged as a theme in a qualitative study previously and was attributed to medical hierarchy (Plack et al. 2010). However, the emergence of powerlessness as a theme in Paediatric RW submissions in our study cannot be attributed to the influence of medical hierarchy alone, as this would have been similar across the three clerkships. (Vanstone and Grierson 2019) looked at the experience of social power by medical students navigating new work environments. They highlighted the centrality of relationship building in this process. Learning to get along with others is a key step in legitimate participation on the health care team (Jave et al. 2010). For students who struggle to read social cues, form connections or network in social environments, the sense of powerlessness may be more profound. The extra challenge faced by students in Paediatrics is that of three-way communication with family members as well as patients. Results from focus groups with parents of sick children in a tertiary referral centre recommended that medical students have more understanding of the stress and anxiety being in hospital has on patients and families (Hammond and McLean 2009). The principles of family centred health care are recognition of the "strengths, resources and needs" of all family members and the importance of partnership between all stakeholders

(Gorter et al. 2010). A specific focus on three-way communication and family centred health care in Paediatrics may address student sense of powerlessness and could be an important transferable skill for future clerkships eg General Practice, Medicine for the Elderly, Palliative Care.

During the Psychiatry clerkship, our findings suggested that students struggled, understandably, with anxiety and fear resulting from self-awareness of stigma and stereotyping of people with mental illness. With clerkship experience their sense of stigma appeared to reduce, which is in keeping with the findings of a meta-analysis on this topic (Petkari et al. 2018). Our thematic findings are consistent with existing studies that found high levels of anxiety at the commencement of the psychiatry clerkship, particularly in regard to concerns for students' personal safety and the perceived risk of violence among people with mental illness (Vasudevan et al. 2015; Hor et al. 2020). In contrast, fear was only a minor sub-theme in two qualitative analyses of Psychiatry clerkship narratives in US medical schools (Schatte et al. 2015) where the main themes were around respect and maintaining empathy for patients with mental illness. Given that medicine in the US is a postgraduate degree, the life experience of students in those studies may have diminished their sense of fear and perception of risk. This review suggests that Psychiatry faculty need to help students address personal safety issues and address stigmatising attitudes during the clerkship; in particular when there is a mixed undergraduate and postgraduate cohort of students. Recently published guidance to medical schools from the Royal College of Psychiatrists in the United Kingdom has recognised the phenomenon of anxiety and fear among students at the commencement of learning placements in Psychiatry (Royal College of Psychiatrists 2019). Better integration of Psychiatry into the undergraduate medical

curriculum has been shown to positively affect students' experience of this clerkship (de Cates et al. 2019) and may help address the issues raised by students in this study.

The professional growing pains of medical students across all clerkships are already well described in the literature (Conrad 1988; Helmich et al. 2012) and the findings from our analysis support the view that educators need to enable students and tutors to cope with the challenge of a wide variety of learning environments (Teunissen and Westerman 2011). Authentic early clinical experiences, in the first two years of the medical course involving student contact with patients in community and hospital settings may help students with future transitions (Yardley et al. 2013). A novel approach to support students transitioning into clinical learning environments was devised by Young et al in a New Zealand medical school (Young et al. 2016). They created a simulated General Practice clinic for fourth year medical students. Students attended five two-hour sessions at this clinic as well as attending clinical placements in General Practice. Students reported feeling more secure and less judged in this learning environment which allowed them focus on improving clinical skills. By contrast, (Dornan T. et al. 2019) argue strongly in favour of authentic clinical learning environments which foster capability as opposed to competence for medical students as they transition into clinical practice. They describe how supported participation through experiential learning bridges the gap between professional and other identities. Supported participation can be observing, rehearing or contributing, depending on the student's capabilities in a particular learning environment. They have created a model for educators to support experience-based learning but have not as yet shown evidence of its effectiveness in particular clerkships.

Our study supports the maxim that context matters when it comes to professional identity formation (Hafferty 2008). It builds on the foundations laid by (Dornan T. et al. 2019). It provides guidance for faculty to create more accepting learning environments and foster professional growth (Benbassat 2013).

The limitations of this study were that it was conducted in a single institution and local factors may have contributed to the identified themes. A convenience sample was used. Students' RW submissions were summatively assessed prior to commencement of the study which may have had a social desirability effect on the RW content. This was a qualitative study therefore our findings are not generalisable. While a theoretical position was not used to guide the analysis, this study adopted an inductive approach as initial exploratory research in this area. The study was conducted over a short time frame with students during their transition to clinical clerkships.

In conclusion, this study has highlighted areas of need in the experiential based learning pedagogy for medical students and educators during transition to clinical practice. It provides an argument for the formation of clerkship specific educational frameworks for medical students and educators at this time. Future studies may consider further exploring social and developmental perspectives underpinned by educational theory with medical students transitioning to clinical practice.

Declaration of Interest

The authors report no conflict of interest.

References

Atherley A, Dolmans D, Hu W, Hegazi I, Alexander S, Teunissen PW. 2019. Beyond the struggles: a scoping review on the transition to undergraduate clinical training. Med Educ. 53(6):559-570. eng. Benbassat J. 2013. Undesirable features of the medical learning environment: a narrative review of the literature. Adv Health Sci Educ Theory Pract. 18(3):527-536. eng.

Berkhout JJ, Slootweg IA, Helmich E, Teunissen PW, van der Vleuten CPM, Jaarsma ADC. 2017. How characteristic routines of clinical departments influence students' self-regulated learning: A grounded theory study. Med Teach. 39(11):1174-1181. eng.

Boud D, Walker D. 1998. Promoting reflection in professional courses: the challenge of context [Article; Proceedings Paper]. Stud High Educ. 23(2):191-206. English.

Braun V, Clarke V. 2006. Using thematic analysis in psychology. Qualitative research in psychology. 3(2):77-101.

Carter N, Bryant-Lukosius D, DiCenso A, Blythe J, Neville AJ. 2014. The use of triangulation in qualitative research. Oncol Nurs Forum. 41(5):545-547. eng.

Charon R, Hermann N. 2012. Commentary: a sense of story, or why teach reflective writing? Acad Med. 87(1):5-7. eng.

Conrad P. 1988. Learning to doctor: reflections on recent accounts of the medical school years. J Health Soc Behav. 29(4):323-332. eng.

Cruess SR, Cruess RL, Steinert Y. 2019. Supporting the development of a professional identity: General principles. Med Teach. 41(6):641-649. eng.

de Cates AN, de Cates P, Singh SP, Marwaha S. 2019. Can curriculum design influence medical students' attitudes to psychiatry? A comparison of two different approaches. Med Teach. 41(8):939-948. eng. Dornan T, Conn R, Monaghan H, Kearney G, Gillespie H, Bennett D. 2019. Experience Based Learning

(ExBL): Clinical teaching for the twenty-first century. Med Teach. 41(10):1098-1105. eng. Dornan T, Scherpbier A, Boshuizen H. 2009. Supporting medical students' workplace learning:

experience-based learning (ExBL). The Clinical Teacher. 6(3):167-171.

Durand MA, Chantler T. 2014. Principles Of Social Research. United Kingdom: McGraw-Hill Education.

Dyrbye LN, Harris I, Rohren CH. 2007. Early clinical experiences from students' perspectives: a qualitative

study of narratives. Acad Med. 82(10):979-988. eng.
Fischer MA, Harrell HE, Haley HL, Cifu AS, Alper E, Johnson KM, Hatem D. 2008. Between two worlds: a

multi-institutional qualitative analysis of students' reflections on joining the medical profession. J Gen Intern Med. 23(7):958-963. eng.

General Medical Council. 2016. Achieving good medical practice: guidance for medical students. . [updated 2016; accessed 27th May 2016]. https://www.gmc-uk.org/-

/media/documents/Achieving good medical practice 0816.pdf 66086678.pdf

Gibbs G. 1988. Learning by Doing: A Guide to Teaching and Learning Methods. Great Britain.: Further Education Unit.

Gorter JW, Visser-Meily A, Ketelaar M. 2010. The relevance of family-centred medicine and the implications for doctor education. Med Educ. 44(4):332-334. eng.

Greenberg L, Blatt B. 2010. Perspective: successfully negotiating the clerkship years of medical school: a guide for medical students, implications for residents and faculty. Acad Med. 85(4):706-709. eng. Hafferty FW. 2008. Context (place) matters. Arch Pediatr Adolesc Med. 162(6):584-586. eng.

Hammond M, McLean E. 2009. What parents and carers think medical students should be learning about communication with children and families. Patient Educ Couns. 76(3):368-375. eng. Helmich E, Bolhuis S, Dornan T, Laan R, Koopmans R. 2012. Entering medical practice for the very first time: emotional talk, meaning and identity development. Med Educ. 46(11):1074-1086. eng. Hor ESL, Russell V, Vasudevan U, F OB. 2020. Changing attitudes to psychiatry and interest in the specialty as a career choice during clinical undergraduate years at a medical school in Penang, Malaysia. Ir J Med Sci. 189(1):253-259. eng.

Jaye C, Egan T, Smith-Han K. 2010. Communities of clinical practice and normalising technologies of self: learning to fit in on the surgical ward. Anthropol Med. 17(1):59-73. eng.

Karnieli-Miller O, Vu TR, Holtman MC, Clyman SG, Inui TS. 2010. Medical students' professionalism narratives: a window on the informal and hidden curriculum. Acad Med. 85(1):124-133. eng. Kilminster SM, Jolly BC. 2000. Effective supervision in clinical practice settings: a literature review. Med Educ. 34(10):827-840. eng.

Lipsitt DR. 2015. Developmental life of the medical student: curriculum considerations. Acad Psychiatry. 39(1):63-69. eng.

Monrouxe LV. 2010. Identity, identification and medical education: why should we care? Med Educ. 44(1):40-49. eng.

Nevalainen MK, Mantyranta T, Pitkala KH. 2010. Facing uncertainty as a medical student--a qualitative study of their reflective learning diaries and writings on specific themes during the first clinical year. Patient Educ Couns. 78(2):218-223. eng.

Petkari E, Masedo Gutiérrez AI, Xavier M, Moreno Küstner B. 2018. The influence of clerkship on students' stigma towards mental illness: a meta-analysis. Med Educ. 52(7):694-704. eng. Plack MM, Driscoll M, Marquez M, Greenberg L. 2010. Peer-facilitated virtual action learning: reflecting on critical incidents during a pediatric clerkship. Acad Pediatr. 10(2):146-152. eng.

Pope C, Mays N. 1995. Qualitative Research: Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. BMJ. 311(6996):42-45. Pope C, Ziebland S, Mays N. 2000. Qualitative research in health care. Analysing qualitative data. Bmj. 320(7227):114-116. eng.

Prince KJ, Boshuizen HP, van der Vleuten CP, Scherpbier AJ. 2005. Students' opinions about their preparation for clinical practice. Med Educ. 39(7):704-712. eng.

Ritchie J, Lewis J, Lewis PSPJ, Nicholls CMN, Ormston R. 2013. Qualitative Research Practice: A Guide for Social Science Students and Researchers. London: SAGE Publications.

Royal College of Psychiatrists. 2019. Choose Psychiatry. Guidance for Medical Schools. . Royal College of Psychiatrists.

Salminen H, Öhman E, Stenfors-Hayes T. 2016. Medical students' feedback regarding their clinical learning environment in primary healthcare: a qualitative study. BMC Med Educ. 16(1):313. eng. Saunders B, Sim J, Kingstone T, Baker S, Waterfield J, Bartlam B, Burroughs H, Jinks C. 2018. Saturation in qualitative research: exploring its conceptualization and operationalization. Qual Quant. 52(4):1893-1907. eng.

Schatte DJ, Piemonte N, Clark M. 2015. "I started to feel like a 'real doctor'": medical students' reflections on their psychiatry clerkship. Acad Psychiatry. 39(3):267-274. eng.

Shapiro J, Rakhra P, Wong A. 2016. The stories they tell: How third year medical students portray patients, family members, physicians, and themselves in difficult encounters. Med Teach. 38(10):1033-1040. eng.

Sharpless J, Baldwin N, Cook R, Kofman A, Morley-Fletcher A, Slotkin R, Wald HS. 2015. The becoming: students' reflections on the process of professional identity formation in medical education. Acad Med. 90(6):713-717. eng.

Steinauer JE, Teherani A, Mangini R, Chien J, Ten Cate O, O'Sullivan P. 2019. Characterizations of motivation and identity in medical students' reflections about challenging patient interactions. Med Teach. 41(10):1178-1183. eng.

Teunissen PW, Westerman M. 2011. Opportunity or threat: the ambiguity of the consequences of transitions in medical education. Med Educ. 45(1):51-59. eng.

Tong A, Sainsbury P, Craig J. 2007. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 19(6):349-357. eng.

van der Zwet J, Zwietering PJ, Teunissen PW, van der Vleuten CP, Scherpbier AJ. 2011. Workplace learning from a socio-cultural perspective: creating developmental space during the general practice clerkship. Adv Health Sci Educ Theory Pract. 16(3):359-373. eng.

Vanstone M, Grierson L. 2019. Medical student strategies for actively negotiating hierarchy in the clinical environment. Med Educ. 53(10):1013-1024. eng.

Vasudevan U, Bharathy A, Jun Min K, Panikulam JJ, Saleem F, Hassali A, Russell V. 2015. Malaysian medical students' perceptions of a film to promote psychiatry as a career. Australas Psychiatry. 23(2):173-176. eng.

Wald HS, White J, Reis SP, Esquibel AY, Anthony D. 2019. Grappling with complexity: Medical students' reflective writings about challenging patient encounters as a window into professional identity formation. Med Teach. 41(2):152-160. eng.

White J. 2008. The use of reflective writing in exploring student experiences in surgery. J Surg Educ. 65(6):518-520. eng.

Yardley S, Brosnan C, Richardson J. 2013. The consequences of authentic early experience for medical students: creation of mētis. Med Educ. 47(1):109-119. eng.

Yardley S, Teunissen PW, Dornan T. 2012a. Experiential learning: AMEE Guide No. 63. Med Teach. 34(2):e102-115. eng.

Yardley S, Teunissen PW, Dornan T. 2012b. Experiential learning: transforming theory into practice. Med Teach. 34(2):161-164. eng.

Yardley S, Westerman M, Bartlett M, Walton JM, Smith J, Peile E. 2018. The do's, don't and don't knows of supporting transition to more independent practice. Perspect Med Educ. 7(1):8-22. eng.

Young JE, Williamson MI, Egan TG. 2016. Students' reflections on the relationships between safe learning environments, learning challenge and positive experiences of learning in a simulated GP clinic. Adv Health Sci Educ Theory Pract. 21(1):63-77. eng.