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Threshold concepts: A portal into new ways of thinking and practising in psychiatry

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ABSTRACT

Introduction: The theory of threshold concepts conjectures that there are areas in every educational curriculum that are challenging; however, mastering these areas transform the learner's view of the subject. In psychiatry, research into threshold concepts can inform educators so that they can better support students with mastering these challenging areas.
Purpose: To identify threshold concepts, we conducted semi-structured interviews with six psychiatry educators and free-text surveys with medical students. To identify avenues for improving the curriculum, we discussed with educators, ways of improving understanding and looked at different approaches to learning.
Materials and methods: From our analysis of all responses, we derived three threshold concepts: Therapeutic Risk-Taking, the Biopsychosocial Model, and the Concept of Diagnosis in psychiatry. The majority of students experienced difficulties grasping these concepts and applying them in their patient interactions.
Results and conclusions: Hence, we propose focused teaching activities that can help students cross these thresholds: student Balint groups exploring therapeutic risk, student Balint groups exploring the role of a psychiatrist, exposure to psychological therapies/psychotherapy skills and explicit diagnostic reasoning. These activities can be integrated into the undergraduate curriculum to help medical students develop a better understanding and appreciation of psychiatry.

Introduction

Medical students struggle to engage with psychiatry more than with other medical specialities (Suibhne 2012). There are many reasons for this; students perceive it to be less scientific compared to other specialities and feel that mental health patients are difficult or impossible to treat (Holt and Andlauer 2015). It is also often taught in the later stages of undergraduate training, and that too for a limited number of weeks meaning students may graduate with an incomplete understanding of the field, and with a host of misconceptions about mental illnesses and their management.

Patients with hypertension, asthma, cancer and diabetes have a higher risk of suffering from mental health problems including depression, post-traumatic stress disorder (PTSD), and anxiety (Mental Health Foundation 2018). Therefore, even students who wish to pursue other medical specialities will almost certainly encounter patients with psychiatric comorbidities and will require an adequate understanding of the field of psychiatry (Raj et al. 2016).

This calls for educators within the field of psychiatry to welcome new teaching approaches and ways of designing the curriculum to inspire and enthuse students. To help students overcome struggles with learning a discipline, educators have been proposing threshold concepts to guide curriculum design and student support (Meyer and Land 2012).

Threshold concepts in psychiatry education

'Threshold concepts' are an educational theory that offers educators new insights on how to approach teaching, support learners and design curricula (Neve et al. 2016). Developed by Meyer and Land, they are described as 'akin to a portal, opening up a new and previously inaccessible way of thinking about something' (Meyer and Land 2012). Meyer and Land's initial description assigns certain characteristics to threshold concepts: *transformative*, *troublesome*, *irreversible*, *integrative*, and *bounded*.

When a learner acquires a threshold concept, their perception of a subject or how they see the world *transforms*. A central feature of the theory is the notion of grappling with *troublesome* knowledge. When new, emergent knowledge contradicts previously held beliefs, learners may feel unsettled.

The resulting change in perspective is *irreversible* and unlikely to be forgotten – or unlearned. Grasping a

Practice points

- Students may encounter difficulties in understanding concepts in psychiatry.
- Threshold concepts represent a means of examining the struggles and transformations that students experience during their psychiatry placements.
- Identifying threshold concepts within psychiatry can help educators to prioritize transformative areas of the curriculum that students often struggle with and improve the design of the curriculum.
- Therapeutic Risk-Taking, Biopsychosocial model, and the concept of Diagnosis in Psychiatry emerged as threshold concepts.
- Once identified, teaching methods can be developed to aid students in understanding these concepts.

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threshold concept enables learners to mentally *integrate* fragments of a subject together and uncover how these concepts relate to one another (Rust 2004). Threshold concepts can be *bounded* – they delineate a particular conceptual space.

The liminal space

The 'liminal space' is a term used to describe the moment(s) before having 'crossed the threshold' of acquiring a concept, and this space can be troubling for students (Meyer and Land 2012). Learning is often an iterative process; learners go back and forth, may temporarily forget and then have to re-learn concepts. Students undertaking their clinical attachments often exhibit this style of learning, when they link theoretical, knowledge-based principles from didactic lectures to real-life patient interactions.

Students learn through their patient encounters; history-taking, examining patients, and seeing variation between patients who have similar illnesses. Hence, students are continually readjusting and adapting their knowledge to real-life practice. Threshold concepts represent a means of examining such changes and adjustments which take place in medical students on their psychiatry placements. Identifying threshold concepts in psychiatry enable educators to prioritize these concepts and develop strategies to support students better in mastering these concepts.

Troublesome knowledge

The focus on troublesome knowledge is perhaps where the greatest value lies in the exploration of threshold concepts, as psychiatry deals with a vast amount of troublesome knowledge ranging from symptomology to psychotherapy (Suibhne 2012). Perkins describes troublesome knowledge as knowledge that is conceptually difficult, counter-intuitive or 'alien' (Perkins 2006). Often students find the transition to understanding troublesome. A new perspective or transformed view can displace previous, comfortable ways of viewing something, which can feel unsettling. Students at this point may assuage this distress by switching off, or drawing premature conclusions, leading to misunderstandings about the subject.

Hence, identifying troublesome and transformative areas allows educators and curriculum designers to develop teaching strategies to help students eventually cross these thresholds. Therefore, the development of the curriculum is an important task – a task in which students could play a role (Katinka et al. 1998).

Aims of the study

The purpose of this study is to identify and understand threshold concepts that are central to the mastery of psychiatry at the undergraduate level. We also discuss educational activities that could support students through the transformations they undergo.

Methods

Design of the study

The collection and analysis of data followed a constructivist qualitative research approach rooted in grounded theory (Robson 2009; Holliday 2012; Cleland and Durning 2015). A curriculum inquiry into the experiences and perspectives of both students and educators formed the basis for analyzing five characteristics of threshold concepts: *Transformative*, *troublesome*, *integrative, bounded and irreversible* – with a greater focus on the '*troublesome*' and '*transformative*' characteristics.

Our curriculum inquiry involves multiple parties: researchers, subject specialists, and learners themselves as recommended by Cousin (2011). Undergraduate teachers and educators influence students' experiences during their clinical attachments – their involvement enables students to bridge the gap between educational theory and clinical practice (Meyer and Land 2012).

The discussions with psychiatry educators helped us discover areas that they perceive students struggle with the most. We also inquired about transformations and struggles in psychiatry that the educators experienced themselves in their training.

The written responses from students helped us discover students' experiences during their psychiatry attachments – including what they found most difficult. This gave us insights into the 'liminal space' that students traverse, before crossing a threshold. The students written responses helped us triangulate the data with the semi-structured interviews with the psychiatry educators.

Hence, the input from both educators and students allowed us to explore the journey of knowledge acquisition, both from the perspectives of students (who are at the beginning of their journeys to crossing thresholds), and educators (who have crossed thresholds and are now witnessing students grappling with difficult concepts).

During our interviews with educators, we also started to explore potential teaching activities that could be incorporated into the existing curriculum. Curriculum inquiry and curriculum design thus have the potential to merge and support each other (Cousin 2011).

Interviews with educators

To identify threshold concepts, we conducted semi-structured, one-to-one, face-to-face interviews with six psychiatry educators. We briefed the interviewees on the characteristics of threshold concepts beforehand but explained that we would not analyze their inputs during the interview. We used open questions proposed by Cousin's (2011) research into threshold concepts, where the starting point was an exploration of the struggles that the interviewees anticipate students go through. Discussions then veered towards related issues such as misconceptions that students may have, the specific topics difficult for students to grasp and the barriers/obstacles that students face when trying to learn them.

To identify avenues for improving the curriculum, we discussed with educators, ways of improving understanding and looked at different approaches to learning.

Questionnaires to medical students

We invited a cohort of medical students at a UK medical school who had undertaken their psychiatry placements in the previous year to complete an electronic questionnaire, consisting mainly of free text questions that allowed a narrative-like description of their experiences. Twenty-one students responded to the questionnaire.

Data analysis

A line by line coding of the interview transcripts and student responses resulted in 41 parent codes and 25 child codes. These codes categorize struggles that educators perceived students to experience, as well as students' reported difficulties. We searched through all the codes and identified those that were transformative, troublesome, integrative, bounded and irreversible or a combination of these. We then grouped the most frequently mentioned items together. From this, we derived three threshold concepts: Therapeutic Risk-Taking, the Biopsychosocial Model, and the Concept of Diagnosis in psychiatry.

Results

Threshold concept 1: Therapeutic risk-taking

Therapeutic risk-taking involves encouraging patients to make decisions regarding their safety and to take risks to enable personal development and move towards recovery (Stickley and Felton 2006). A decision about whether or not it is safe to discharge a patient who presented with an attempted suicide is an example of a therapeutic risk. Students have to grapple with the notion that while a decision may feel risky in the short term, the patient stands to benefit in the long term.

A psychiatrist has to balance the safeguarding of the patient to ensure that previous risky behaviors – such as attempting suicide – will not repeat themselves, while at the same time holding out hope for the potential of change (Stickley and Felton 2006; Felton et al. 2017). The troublesome nature of therapeutic risk-taking stems from the contradicting responsibilities to protect the individual from harm as well as to promote patient autonomy, which underpins the struggle in deciphering the optimal balance of these two considerations.

Determining the level of risk is a challenging task, as it involves using all information available about the patient and balancing the risk of harm with the potential for recovery. To balance these opposing ideals requires imagination and grappling with the unknown– as the psychiatrist is making predictions about something that may or may not happen in the future. It is this uncertainty that adds an emotional burden to the cognitive exercise of balancing risks – as the psychiatrist has to shoulder the responsibility of potential future harm to the patient (Figure 1).

Our study revealed that students found witnessing clinical decisions involving therapeutic risk troubling and confusing. We asked students a multiple-choice question involving therapeutic risk and to then explain their reasoning. The question requires students to consider the risks of the patient self-harming when deciding the next step in managing the patient.

The majority of students selected 'detain under section 2 of the Mental Health Act.' The next two most frequently chosen options were: 'Continue informal admission and encourage to attend groups' and 'start an antipsychotic medication.' No student selected either of the discharge options.

Understanding therapeutic risk requires students to readjust their beliefs about what it means to care for patients – as the notion of discharging a patient may seem counterintuitive to many students (Clouder 2005). Some of the students associated discharging a patient with rejecting the patient - the antithesis of caring.

> Detain under section 2, and this would allow her to get the maximum amount of care – *Student 16*

> Turning her away may seem like you are unwilling to help her – *Student 21*

Students' prior assumptions of caring for patients involve caring within a hospital setting. Hence, this requires them to update their beliefs about what it means to care for patients in a psychiatric setting. In some instances, the most caring action a psychiatrist can take is to allow a patient to develop coping mechanisms in the community, away from a hospital-based setting.

> [A hospital] is not a therapeutic environment for that person … the only way I can convey it to students is to say: How is [the] person going to develop coping mechanisms for all those distressing thoughts if you are going to lock them up in hospitals? – *Psychiatry educator 3*

> The admission doesn't appear to help the person in improving but […] getting further and further away from managing their own safety […] and you have to do it in a way that's not rejecting: 'This admission is not helping, and I know it might be hard to understand, but you have to trust us, we want you to be able to cope'. […] In the short term, it feels risky, sending someone home who cannot keep themselves on eyesight observation in the ward. […] In the longer term keeping them in hospital for six months, nine months, overall their risk might be worse, higher in the longer term even if in the short term it seems safer that they are being watched and looked at. […] You have to think in the longer term – *Psychiatry educator 2*

> Your attitude might well be that person needs more care or more support […] you might perceive that this is a condition for which there is no treatment […] and those are not the messages that you want, because that is not the full story. – *Psychiatry educator 2*

Students appear to misunderstand the rationale behind why, in some cases, it may be most appropriate to discharge a patient, as students seem to struggle with understanding the notion of therapeutic risk.

> [Students] obviously will not be seeing the patients who do evolve to start to use admissions really positively and do not need them as much […] which we do see over longer periods – *Psychiatry educator 2*

> I thought I may like to be a psychiatrist, but my placement put me off, it seems very hard to cure patients. – *Student 8*

The comment from Student 8 about 'curing' patients suggests a misconception about the recovery process and management of psychiatric conditions. 'Recovery is described as a deeply personal, unique process of changing one's attitudes, values, feelings, goals, skills and/or roles.

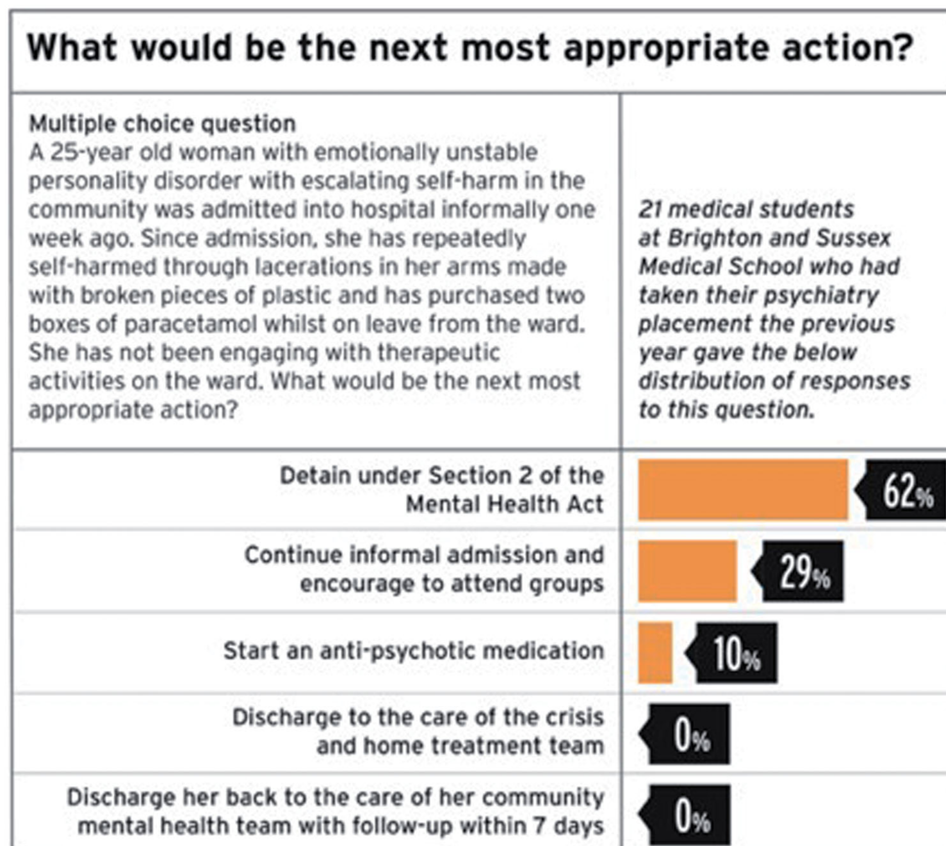

Figure 1. Multiple choice question.

Table 1. Therapeutic risk taking as a threshold concept.

Transformative	An understanding of the concept transforms the way students view decisions involving risk and recovery.
Troublesome	Students often experience this transformation as troublesome, because decisions involving therapeutic risk can seem counterintuitive, such as determining the correct time to discharge a patient.
Integrative	An understanding of the concept allows students to integrate the notions of 'risk' and 'recovery' when making clinical decisions.
Irreversible	Likely once learned, students are unlikely to revert back to viewing risk as synonymous with harm.
Bounded	The concept is bounded to the profession, as lay-people may view certain decisions as 'risky,' without realizing the therapeutic potential to decisions which carry an element of risk.

It is a way of living a satisfying, hopeful and contributing life even with the limitations caused by illness' (Anthony 1993). Understanding therapeutic risk-taking allows students to understand the concepts of recovery better and what this means to individual patients. Taking considered therapeutic risks encourages patients to engage in the recovery process – such as discharging a patient into the community. The threshold concept of therapeutic risk-taking is thus *transformative*, as it changes how students view both risk and recovery within the management of psychiatric conditions (Felton et al. 2017) (Table 1).

Threshold concept 2: The biopsychosocial model

The biopsychosocial model supports healthcare professionals in integrating biological, psychological, and social factors when assessing, preventing, and treating diseases (Havelka et al. 2009). This allows for a holistic approach taking into account the full range of determinants of health and disease. While students may appreciate and be able to superficially define each factor, they may struggle to understand the relation of these factors to one another, as well as the implications of this combined approach when forming a management plan.

Some students found the biopsychosocial approach difficult because it felt alien or foreign to the approach that they are familiar with – one with a greater focus on the biological aspects of health. Perhaps psychiatry, more than other specialities, requires a more rigorous grasp of the social and psychological aspects – as often, these aspects precipitate and perpetuate poor mental health (Havelka et al. 2009). Psychosocial factors influence the expression of mental health disorders, and the lack of explicit, organic, pathological markers in mental health means that the biopsychosocial model is even more applicable to psychiatry.

The biopsychosocial model also enables the psychiatrist to consider treatments which look into the social and psychological aspects of the patient's life, such as psychological therapies, in addition to pharmacological drug

Table 2. Biopsychosocial model as a threshold concept.

Transformative	An understanding of the concept transforms the way students gather information during history-taking, and select treatments for patients, while considering the interplay between the biological, psychological and social factors.
Troublesome	Students may experience this transformation as troublesome, as it may conflict with their prior notions of what it means to be a doctor, where a greater focus has been on the biological factors.
Integrative	An understanding of the concept allows students to integrate the biological, psychological and social factors and appreciate how they may influence one another.
Irreversible	Likely once learned, students are unlikely to revert back to a solely biologically focused history-taking and management approach.
Bounded	The concept is bounded to the profession to a degree, as while the biopsychosocial model is applicable across different medical specialities, there are particular nuances in psychiatry where the psychological and social factors may carry greater weight in determining the management of the patient.

treatments. Students may find this troublesome as it may challenge their preexisting views about the role of a doctor in psychiatric practice, which may be one that is more traditional and prescriptive – a view that students may be more familiar and comfortable with (Engel 1977; Melchert 2011). For instance, employment and social housing are matters that the psychiatrist would often explore and address together with the patient. Our interviews with psychiatry educators highlighted that some students did not realize that these questions were indeed within their remit.

> The art comes into it a few steps down the line, where you realise things are more likely to work when you understand the bigger picture and the systems that persons within, it gets more complex – *Psychiatry educator 2*

> There is such strong social component to people's illness or presentation and that can be difficult for some students who don't like integrating that into an explanation […] as to why someone is ill – *Psychiatry educator 5*

Many students wrote about experiencing discomfort about asking questions that they believed to be intrusive, for instance, social matters such as alcohol misuse, relationships, and childhood abuse. As a result, students resorted to taking a superficial psychiatric history insufficient to manage a patient appropriately.

Psychiatry educators observed that students would often deal with this discomfort by using verbal crutches, in the form of stock phrases that they had heard from psychiatrists. These temporarily helped students to carry out the psychiatric history but meant that they were not fully engaging with the history-taking process.

Our interviews with psychiatry educators revealed that in order to conduct a curious and empathic biopsychosocial inquiry, students have to bypass protective mechanisms such as using stock phrases. Educators stressed the importance of students reducing self-focused attention in order to then focus on the patient, and in turn, overcome the fear of offending or causing distress to a patient. By focusing more on gathering the relevant information, students will be less anxious about the possibility of offending, leading to a more adaptive, patient-centered approach to history-taking.

> You can't just chuck a drug at someone and expect them to get better. It is the complete viewing of everything […] their housing situation is terrible, they have got arguments with their neighbours, they have no money, a parent is terminally ill. Wrapping your head around the fact that you might need to go above and beyond prescribing medication can be tricky for people at times. – *Psychiatry educator 3*

To fully 'cross the threshold,' students must overcome their discomfort to be able to engage in history-taking, actively seeking to address the biological, psychological, and social aspects of the patient's presenting complaint. They ought to use this information to explore management options which address the social drivers to their patients' mental health. Appreciating the biopsychosocial model and its components can also help students transition from thinking like a medical student to thinking and practising like a psychiatrist, who views considering social factors as a vital part of the role of a psychiatrist. Together with further exposure and training at later stages of their education and careers, the history details will enable them to determine the most effective management approach (Table 2).

Threshold concept 3: Concept of diagnosis in psychiatry

A diagnosis is the basis for decision making in clinical medicine, informing treatment approaches and prognosis. In the field of psychiatry, the concept of diagnosis is precarious because the utility of diagnosis is not necessary to guide treatment selection. Pharmacological treatments have a broad spectrum of diagnostic indications, and psychological therapies are indicated for a variety of social and personal needs, and hence are applicable for a range of diagnoses. Instead, the persistence and severity of a set of symptoms are more useful to a psychiatrist than a diagnosis in guiding treatment approaches and making predictions about prognosis (McGorry and van OS 2013).

The initial years at medical school are geared towards the linear pattern of a diagnosis neatly informing the next management approach. When students realize that the diagnosis approach in psychiatry deviates from the diagnosis approach in clinical medicine, they perceive this mismatch as troublesome and confusing.

The pathways of mental illnesses are often complex and do not always fit into the descriptive phenomena later categorized into a specific diagnosis (McGorry 2010). It can be challenging to ascertain a specific, unchangeable diagnosis because this can vary based on the timepoint along

Table 3. Understanding the concept of diagnosis in psychiatry as a threshold concept.

'Concept of diagnosis in psychiatry' as a threshold concept	
Transformative	An understanding of the concept transforms the way that students engage with the process of diagnosis – adopting a heuristic, iterative approach.
Troublesome	Students may experience this transformation as troublesome, as it may conflict with their prior notions of a diagnosis being a solely static classification system. Diagnostic uncertainty may also be unsettling for students.
Integrative	An understanding of the concept enables students to continually integrate the information they have about the patient's current presentation in making a diagnosis at a given point in time.
Irreversible	Likely once learned, students are unlikely to revert back to a static approach to diagnosis.
Bounded	The concept is bounded to the profession to a degree, as while diagnoses are a way of classifying disease across specialities, in psychiatry diagnosis is more of a 'process.' Persistence and severity of symptoms are more effective than a diagnosis in informing the management.

a complex illness pathway at which the psychiatrist makes the diagnosis – there are different manifestations of symptoms at the onset, progression and chronic illness stage.

Psychiatrists anticipate adjusting their diagnosis multiple times throughout a patient's illness trajectory. For example, diagnostic shifts are substantial in schizoaffective disorder, where the psychiatrist would alter the diagnosis during the illness and likewise, the treatment (McGorry and van OS 2013).

When a student observes a psychiatrist change an initial diagnosis x into a diagnosis y, s/he may conclude that the psychiatrist initially made a mistake, instead of appreciating the process of updating diagnoses in psychiatry.

> There might be a perception that they got something wrong and within psychiatry, we work less on what things are wrong and right, but [instead] diagnoses being able to evolve – *Psychiatry educator 1*

> It was difficult to understand the differences between some of the diagnoses when studying the ICD 10 in detail, which I did for my CBD patient. But there are so many types of diagnoses with so many sub-diagnoses or categories that, especially when in a clinical environment, and not knowing the full histories of the patient it was difficult to understand what they had and why different treatment options may be best – *Student 11*

The lack of objective markers means that diagnosis cannot be outsourced to external measures of health, such as blood tests – adding to the difficulty of the task.

Students ought to focus less on determining a clear-cut diagnosis and instead adopt a patient-centered flexible approach to managing a patient. To fully understand psychiatric diagnoses, students ought to learn about the evolution of mental illnesses and not just a cross-sectional set of symptoms as with traditional classification systems of diagnosis.

Students comfortable and familiar with text-book descriptions may find the adaptability required in understanding diagnoses within psychiatry challenging. Comprehending the utility of diagnosis in psychiatry can be transformative, as students will learn not only to retain a heuristic, open mind with regards to a diagnosis, but also appreciate the inherent changeability of diagnosis (McGorry and van OS 2013) (Table 3).

Implications for educators

We identified the following threshold concepts in this study: Therapeutic Risk-Taking, Concept of Diagnosis within psychiatry, and the Biopsychosocial Model. Students experienced difficulties grasping these concepts and applying them in their patient interactions, because they seemed counterintuitive, alien, and require students to deal with a degree of uncertainty. However, these concepts have potential to transform students' understanding in the following ways:

- Understanding Therapeutic Risk-Taking transforms how students make difficult decisions – they are better able to balance risk and recovery.
- Understanding the Biopsychosocial Model transforms how students approach history-taking and management – they adopt a heuristic open mind and thus are better able to assess the psychosocial determinants of health.
- Understanding the Concept of Diagnosis in Psychiatry transforms how students view the trajectories of mental illness – they are better able to appreciate variations in the manifestation of symptoms over time.

A transformed understanding can also uncover how separate concepts in psychiatry relate to one another. Students are then able to integrate different concepts when applying their knowledge to real-life practice.

When students grasp these threshold concepts, they will understand the process of making clinical decisions, balancing risks, and adopting a holistic, patient-centered approach – all of which are important attributes of a competent, safe and caring future doctor (Figure 2).

However, the educational challenge lies in enabling students to cross these thresholds. From our discussions with psychiatry educators and existing literature on pedagogical activities in mental health, we propose the following teaching activities:

- Student Balint groups exploring therapeutic risk-taking
- Student Balint groups exploring the role of a psychiatrist
- Exposure to psychological/psychotherapy skills
- Explicit diagnostic reasoning

Student Balint groups exploring therapeutic risk-taking

A Balint group is a forum for discussing difficult patient cases. The group are encouraged to listen uninterruptedly to a member sharing the case, and then respond with

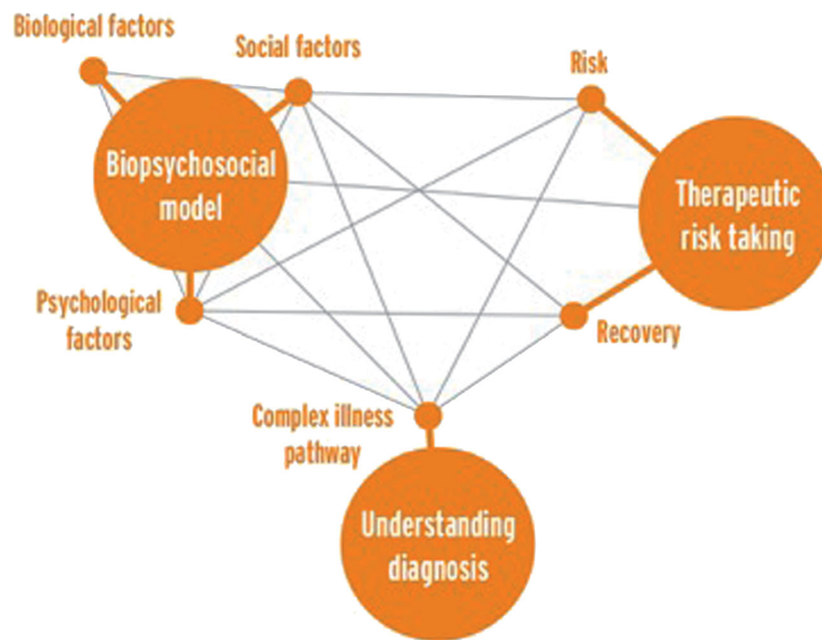

Figure 2. Integration of concepts.

either questions, advice or different perspectives. There is evidence to show that they help student's better handle difficult clinical scenarios (Airagnes et al. 2018).

Discussions surrounding difficult decisions involving therapeutic risk could take place in a forum such as a Balint group, facilitated by an educator. The full complexity of a decision-making process involving therapeutic risk can be made as explicit as possible, with all factors taken into consideration explored when deciding, for example, to discharge a patient (Pesut and Herman 1992).

Students who fail to understand the complexity of therapeutic risk-taking may resort to defensive practice – where decisions are made solely to minimize risk, without considering the best interests of the patient. These decisions may lead to unnecessary patient hospitalization and delay the recovery process (Stickley and Felton 2006; Felton et al. 2017). Additionally, misconceptions about the management of psychiatric conditions may prevail. Therefore, Balint groups may provide an ideal setting for educators to identify and challenge misconceptions that students may pick up throughout their psychiatry placements.

Student Balint groups exploring the role of a psychiatrist

Balint groups can also promote discussions surrounding professional identity and growth (Atkinson and Rosenstock 2015). These discussions can help students navigate a potentially troublesome identity shift, as they come to terms with the psychiatrist's input in a patient's housing situation, employment, alcohol and drug rehabilitation, for example.

Students are also exposed to situations where they may feel helpless, for example when they cannot influence the social circumstances of a patient. An example of this is: a patient struggling with obtaining suitable housing. Acknowledging that in some cases, there is very little that that can be done for a patient is an important lesson – students are often unprepared for this realization. Tolerating helplessness is an inescapable part of the role and preparing students by making them aware of the limitations to actions that they can take as a doctor, may help them better manage the emotional impact of feeling helpless.

> We end up teaching idealised situations, when I did my membership exams, I had to break down my management plan… I would reel off the things I would like to do in an ideal world, but I know half of that stuff is never going to happen. It seems a bit artificial and a bit unreal. – *Psychiatry educator 6*

Exposure to psychological therapies/psychotherapy skills

Students have very little exposure to psychological therapies, even though they play a notable role in the management of a patient in psychiatry (Selzer et al. 2015). To fully understand and apply the biopsychosocial model, perhaps students ought to receive teaching on all aspects of psychological therapies. Students may not be able to fully appreciate the social and psychological aspects of the biopsychosocial model in treating patients without understanding how psychological therapies work.

Psychotherapy skills are also beneficial across other medical specialities, in situations such as managing distress, tolerating silence in consultations, managing conflict, and improving adherence (Selzer et al. 2015). Students are most likely to witness these skills in action on their placements; however, without understanding the theoretical basis, students may find it challenging to incorporate these skills into their patient interactions. In particular, several students in the study commented on feeling uncomfortable about asking specific questions. Perhaps a better understanding of psychotherapy skills could mitigate this apprehension and allow students to make the most of their history-taking opportunities.

Explicit diagnostic reasoning

Explicit diagnostic reasoning may be a useful exercise in helping students understand the role of diagnosis (Pesut

Table 4. Summary of teaching activities.

Teaching activity	Explanation
Student Balint groups exploring therapeutic risk-taking	Discussing difficult patient cases can allow educators to explore with students the complexity of therapeutic risk-taking.
Student Balint groups exploring the role of a psychiatrist	Discussions surrounding the role of a psychiatrist can help students understand the social drivers to poor mental health that the psychiatrist must address. Students can also learn to better appreciate their own limitations in influencing social factors.
Exposure to psychological therapies/psychotherapy skills	Exposure to psychological therapies and psychotherapy skills can help students understand the management of psychosocial factors – where such therapies play an important role.
Explicit diagnostic reasoning	Explicitly discussing all the factors that must be taken into consideration when establishing a diagnosis can help students understand the process of diagnosing in psychiatry.

and Herman 1992). Clarifying the thought-processes involved in establishing a tentative diagnosis, as well as emphasizing the several factors that may interplay to change the diagnosis at a later stage are essential in aiding this understanding (McGorry and van OS 2013).

A lack of discussion with students means that psychiatric practitioners may find it hard to make explicit their tacit, implicit understanding of the nature of diagnoses, which may leave students with unhelpful misconceptions. Hence, the concept of diagnosis within psychiatry should not be simplified in teaching.

Psychiatry educators should explain the full reality and extent of the ambivalence, changeability, and tentativeness of diagnostic reasoning. A patient-centered focus on the *why* and *how* the psychiatrist came to their conclusions about a diagnosis at a particular point in time can help students deal with anxiety and uncertainty associated with a changing diagnosis (McGorry and van OS 2013; Pesut and Herman 1992).

Limitations of this study

The self-selected cohort of medical students who participated in the survey could potentially be more self-motivated or have other characteristics that distinguish them from the general population of medical students. Likewise, the psychiatric educators who volunteered to participate in the interviews could have a greater interest in teaching or other characteristics that distinguish them from the general population of psychiatric educators.

The proposed task of 'identifying' threshold concepts is fraught with challenges and ambiguity, mostly revolving around a lack of clarity on the characteristics that determine a threshold concept (Barradell 2013; Quinlan et al. 2013). One of the difficulties lies in the attribution of significance to characteristics (Rowbottom 2007). Descriptions suggested in the literature, such as 'probably irreversible,' 'possibly often (though not necessarily always) bounded,' and 'potentially (and possibly inherently) troublesome' are seemingly negotiable and the relative importance, therefore, is up for interpretation.

There is inter-individual variation in students' experience of difficulties (Cousin 2011; Meyer and Land 2012). Hence, a threshold concept for one student may not be a threshold concept in the same way for another.

Conclusion

Threshold concepts help identify transformative, yet often troublesome areas of learning in psychiatric curricula for medical students. Educators and curriculum designers can develop teaching approaches to help students overcome the barriers to learning these concepts in psychiatry. Involving both students and educators in the discussion of curriculum design allows a dynamic and inclusive consideration of all stakeholders involved in the learning process.

We identify three threshold concepts: Therapeutic Risk-Taking, the Biopsychosocial Model, and Concept of Diagnosis in Psychiatry.

To support students' mastering of threshold concepts, we developed pedagogical recommendations to incorporate in a medical school curriculum: student Balint groups exploring therapeutic risk, student Balint groups exploring the role of a psychiatrist, exposure to psychological therapies/psychotherapy skills, explicit diagnostic reasoning.

Educators can help create learning experiences for students on their psychiatry placements that students can draw upon to manage and deal with unseen, future situations. If educators/curriculum designers improve the teaching of threshold concepts using our recommendations, students will be able to navigate through these concepts with confidence in a focused and supportive curriculum, thereby becoming skilled, empathetic, and open-minded future doctors (Table 4).

Disclosure statement

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Glossary

Liminal space: A suspended state of understanding, where learners oscillate between old and emergent understanding. This space represents the difficult journey that learners traverse when grappling with new information, which can be challenging both emotionally and cognitively.

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