



ORIGINAL RESEARCH

Discovering careers in mental health: a qualitative pilot study of a novel simulation-based education programme

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ABSTRACT

Introduction:

The global burden of disease from mental illness has been increasing, whilst the number of mental healthcare professionals has been decreasing at alarming rates. Recruitment to mental healthcare workforces is a key priority to efficiently tackle this imbalance, and recruitment efforts can be aided through educational experiences for school students that encourage career choices in mental health. This pilot study evaluates a novel simulation-based education programme to inform students about careers in mental health.

Methods:

94 school students aged 15-18 were opportunity sampled for this programme. Participants followed a simulated patient through four scenarios from hospital admission to returning home, whilst observing the roles of different mental health professions. Qualitative questionnaires were completed post-course, assessing the participants' learning experience and perceptions of careers in mental health.

Results:

Thematic analysis of qualitative data revealed a greater understanding of mental healthcare roles, participants' desire to challenge mental health stigma, and a positive regard for simulation-based education.

Discussion:

Simulation-based education serves as an innovative and applicable modality for career education. Moreover, it provides a novel approach to mental health literacy and stigma reduction in students, who could form the future workforces. Our findings act as a call to action for simulation educators, urging them to consider the application of simulation-based education in not just medical but also mental healthcare education. Large-scale deployment of this programme could have important implications for supporting mental healthcare recruitment.

What this study adds

- There is an urgent need for greater and more diversified recruitment in healthcare, and career education targeted at pre-university students is a viable way of achieving this
Simulation-based education (SBE) is one learning modality through which career education courses can be delivered to students in an immersive and exciting manner
- This study is one of the first to present the applicability of an SBE approach for mental health career education
- Our findings suggest that SBE may add value for pre-university students thinking about careers in mental healthcare

The growth of mental healthcare workforces is a global priority, with the World Health Organisation's Mental Health Atlas ^[1], highlighting the dearth of healthcare workers trained in mental health (MH) across the world. In England, the ratio of psychiatrists to patients is declining, falling from one doctor for every 186 patients in 2013 to one doctor for every 253 patients in 2018 ^[2]. From 2014 to 2018, there was a 10% fall in the number of MH nursing applicants, demonstrating the need for urgent recruitment-focused action ^[3].

One of the main reasons for recruitment difficulties in mental healthcare is poor attitudes toward MH and MH professions ^[4,5]. Additionally, a systematic review showed an increase in positive attitudes toward MH nursing in undergraduate nurses' post-education interventions across 12 studies, implicating that a lack of MH education also seems to contribute to this problem ^[6]. Thus, increasing education-based recruitment initiatives should be a key strategy in tackling MH staff shortages.

This has been recognized by the World Health Organisation's Global Strategy on Human Resources for Health ^[7], which lists increasing recruitment as one of their key global milestones in improving healthcare provision over the next 10 years. An effective way to achieve this is by focusing recruitment efforts on students, who could join the future workforce, and educating them about available professions. This is supported by a literature review on assessing nursing recruitment efforts for middle school students, which reports significant increases in students' desire to pursue nursing as a career post-recruitment intervention across seven studies ^[8]. Additionally, such recruitment initiatives allow students to gain insight into health professions, thus empowering them to clarify perceptions and make informed career decisions ^[9].

Simulation-based education (SBE) can be a powerful experiential tool for students to learn and experience healthcare professions in a realistic yet safe environment ^[10]. Moreover, research highlights SBE as a useful tool for inspiring interest and facilitating recruitment in science, technology, engineering and mathematics, and healthcare fields ^[11]. Despite evidence supporting its effectiveness as a learning method in the field of MH ^[12], SBE in MH has focused on professional and post-qualification training, rather than being harnessed to support recruitment.

Generally, healthcare recruitment initiatives aimed at school students involve workshops or seminars rather than

more immersive approaches such as SBE. Furthermore, very limited research aimed at improving recruitment to MH professions using SBE for school students has been published. Consequently, this qualitative pilot study aims to evaluate the use of SBE to provide school students with a deeper understanding and experience of MH professions.

Methods

Sampling

Ninety-four school students aged 15–18 years were recruited to participate in the study through convenience sampling. Local schools were contacted and students were able to express their interest and request to participate in the training. Ethical approval for the study was provided by the Psychiatry, Nursing and Midwifery Research Ethics Subcommittee at King's College London on behalf of the Health Research Authority (Ref: PNM1314173).

Data collection

Course delivery was carried out as planned for 2017, 2018, and 2019, but had to be adapted to an online format in 2020 due to COVID-19. Pilot data were collected through post-course qualitative evaluation surveys. As the course was conducted both in-person and online, evaluation data were also collected via two formats. Paper forms were distributed at the end of the in-person training day and an online survey link was posted in the meeting chat at the end of the online training day. In both formats, participants were made aware that filling out the evaluation survey was not mandatory, and were then given some time to anonymously complete the survey if they chose to do so.

The evaluation survey consisted of open-ended questions around the students' experience of the training, their learning, and their career intentions. These questions were developed collaboratively by our simulation faculty, researchers, and the commissioning organisation. The main aim emphasized throughout survey development was to identify the key skills developed, learner experience from this course, and participants' perception of careers in MH.

SBE application

The *Discover Careers in Mental Health* simulation was a half-day course delivered five times over four years from 2017 to 2020. Students registered upon arrival and provided informed consent. After an introduction, warm-up, and icebreaker session, the simulation scenarios

began. The course was led by simulation facilitators, including a psychiatrist, psychologist, MH nurse, and an occupational therapist, who also accompanied students into the scenarios. During the course, students followed the journey of an MH service user (played by a professionally trained actor) from admission to discharge through four simulated scenarios (see Table 1). The simulated patient roles were developed by our faculty, with involvement from an ex-service user group. The actor was required to attend a quality assurance course at our simulation centre, and the ex-service user group was also included to provide the actor with the required knowledge and skills for accurately portraying MH scenarios.

We were guided by Kolb's experiential learning theory [13] as the conceptual framework underpinning the development of all our SBE scenarios. This theory is based on the premise that experience plays a vital role in learning and highlights the cycle of experiential learning, starting from engaging in a concrete learning experience, followed by reflecting on the experience, then learning from that experience, and finally, planning to apply that learning. This cycle helped our faculty develop the SBE scenarios in a way that would enhance participants' learning capabilities.

Each scenario provided insights into a particular MH profession. The scenarios were designed to be immersive, with two to three students invited to participate in each scenario along with one lead MH professional. Additionally, students were invited to ask questions and interview the patient, encouraging them to experience the role of a healthcare professional.

Each scenario lasted ~15–20 min. First, a voiceover or scenario summary was provided to the group. Next, students were informed of the role they would assume in the scenario. This was followed by a facilitator-led case discussion and brainstorming session to discuss how the student would approach the scenario. A structured debrief tailored to the course was carried out after each scenario focusing on understanding the service user's experience, reflecting on the role of healthcare services in their journey, and exploring the participants' experience of MH more broadly. This debrief was accompanied by prepared slides on the technical aspects of mental healthcare and additional details on the healthcare profession demonstrated. Moreover, to add a real-world perspective, the healthcare professional in each scenario delivered their personal story and a question and answer session on how they came to be in their current profession and their daily duties.

Data processing and analysis

All participant responses were anonymized and compiled on a Microsoft Word document that was printed out for analysis by hand. Thematic analysis [14] was chosen to interpret participants' responses from the evaluation. The rationale behind this choice was that our participant experiences were heterogeneous, and thematic analysis lent itself best to our research aim of identifying broad shared themes around learner experiences and mechanisms, whilst also generating useful insights [15].

Responses ranged from brief to expansive, but were typically at least two sentences long. The data were analysed

Table 1: Simulated scenarios. Scenario details including the student's role and the profession in focus

| Scenario no. | Simulation scenario summary | Profession in focus | Student brief |
|--------------|---|------------------------|---|
| 1. | Robbie has been brought into a place of safety (POS) after being picked up by the police on Section 136, as they were concerned about his behaviour and were worried that he had a mental illness. He was found standing on a bridge contemplating suicide. He has been in the department for roughly an hour and this is his first MH assessment. | Psychiatrist | You are a medical student working in the POS. You accompany the psychiatrist to complete an assessment of this new patient. |
| 2. | Robbie has been moved to a Triage Ward – He has been assessed by two doctors and placed under Section 2 of the Mental Health Act for further treatment. He has been on the ward for about three days and has started to develop trust in some of the ward staff. Thus, he has been opening up a bit more. He has also started taking some anti-depressant medication. | MH Nurse | You are a new student nurse shadowing a registered MH nurse. Find out a bit more about Robbie's social network, home circumstances and daily activities. |
| 3. | Robbie feels that he is ready for discharge. He has been an inpatient for over two weeks and has a meeting with his psychologist to plan some strategies for keeping well once he is discharged. | Clinical Psychologist | You are a psychology student working with the psychologist. Robbie has given his permission for you to be there – use your knowledge from previous scenarios to support Robbie with his discharge (find out how his mother or sister feels about discharge arrangements). |
| 4. | Robbie was discharged from the ward 3 weeks ago. He has been visited once at a 7-day follow-up shortly after leaving the hospital but is due to a further visit today by his care coordinator who is also an occupational therapist. | Occupational Therapist | You are a student occupational therapist visiting Robbie with his care coordinator. |

by the lead author, who has a background in psychology. First, the lead author familiarized herself with the data and applied initial codes to all the responses. The codes were then grouped into units of shared meaning, and provisional themes were generated to reflect what participants had learnt whilst highlighting which learning mechanisms aided this process. Investigator triangulation was done to enhance the credibility of data analysis, and themes were discussed and finalized with the second and third authors.

Results

Three main themes were identified: understanding mental healthcare roles, challenging stigma, and SBE as a unique learning experience.

Understanding mental healthcare roles

Participants showcased an understanding of the everyday life and workings of various mental healthcare professionals, and an acknowledgement of the importance of their roles.

I have learned about some mental health careers and how those careers can change someone's life for the better.

Qualitative data suggest that this learning was facilitated by involvement in the simulated scenarios, as participants stressed upon elements of the simulated scenarios such as the role-play and the ability to interact with the actor which enhanced their experience.

The role play was good in showing real day to day experiences that someone working in the field of mental health experiences.

They also indicated a broadening of knowledge about MH, in general, beyond the focus of this course. Overall, this theme demonstrated that participants were engaged in the course.

Challenging stigma

Participants expressed an increased awareness around MH and stressed upon the need for de-stigmatisation of this topic in society.

Increased awareness of these issues.

I believe mental health is key and should be spoken about more.

Importantly, they described behavioural changes that would indicate improved attitudes towards MH. The fact that such topics were not integrated into the regular school curriculum, nor widely discussed with students was also highlighted.

I found it so interesting learning about a topic which isn't talked about much at school.

Learning about various MH conditions, the challenges associated with them, and the need for a more sensitive approach to such individuals and situations were described. The course enhanced this learning through the use of presentation slides alongside the simulated scenarios detailing the patient's condition.

SBE as a unique learning experience

The majority of participants felt SBE was a unique and engaging way to learn, with feedback suggesting that the interactive and role-play-based elements were the most enjoyable aspects.

Unlike anything I've done before, stimulating.

I really liked interacting with a 'patient'.

Importantly, SBE allowed participants to experience mental healthcare in a more immersive manner from two opposing perspectives – as a patient and also a carer. This further aided the development of skills such as empathy through acknowledging and feeling the experience of both parties.

The role play was good to experience and understand how others may feel.

Very interactive as we got to ask questions to the patient and see its development.

The opportunity to ask questions to the 'patient' was highlighted as a mechanism that enhanced participants' learning, as this encouraged them to put themselves in the professional's position and focus on generating scenario-specific questions. Skills such as sensitive communication with patients were also fostered.

Discussion

Our novel technique of educating students about MH careers using SBE demonstrated promising results. Analysis of the data revealed an enhanced understanding of mental healthcare roles, their importance, and their demands. Improved knowledge and increased awareness of MH were noted, alongside a desire to challenge MH stigma.

Our findings corroborate literature that suggests a change in knowledge post-SBE [12]. The theme of challenging stigma also strengthens support for our programme's aim of aiding recruitment, as negative attitudes towards MH and MH patients remain prime reasons limiting entry to MH careers [4]. Importantly, all these improvements were facilitated by SBE which acted as an exciting and engaging learning method, whilst allowing students to immerse themselves in the roles of different healthcare workers as well as the patient. SBE differs from and is superior to conventional training such as seminars or workshop-style approaches as it allows for participants to interact directly with the 'patient', a key element absent in conventional training, that strengthens the impact of SBE. In our programme, this provided students with a new perspective on the nature of work in mental healthcare. Lastly, the online delivery of SBE allowed for a threefold increase in participants who could attend. This format showcased the potential of reaching a much wider audience, which could improve engagement in future courses.

It is essential to highlight that besides the core objectives of this programme, students gained MH awareness and basic skills to support individuals with MH conditions – an extremely useful transferrable skill not just in any workplace, but also in everyday life. This further promotes

de-stigmatisation and improved attitudes surrounding MH and related careers. Previous research exploring the effectiveness of various short-term interventions to reduce MH-related stigma in college students supports this ^[16]. This systematic review found that interventions based around social contact with MH service users led to improved attitudes and more positive attributions of individuals with MH conditions, compared to an educational lecture-based intervention criticising stigma. These results also reinforce our findings of stigma reduction through contact and interaction with a simulated 'patient' during SBE.

This study is one of the first to present the applicability of a unique SBE approach for career education, particularly for MH. If widely deployed, this could have implications for improving recruitment to mental healthcare roles. Moreover, it could help reduce the deficit for mental healthcare professionals in the future, particularly as the demand for MH care is increasing year after year ^[2]. It would allow students to gain a good understanding of MH careers at a relatively young age, thereby aiding the widespread dispersion of knowledge around MH and mental healthcare career opportunities. Besides aiding recruitment, this would also improve MH literacy and reduce stigma, which can have implications for the individual relating to self-management, help-seeking, and supporting those around them.

Our findings act as a call to action for simulation educators, urging them to consider the application of SBE in mental healthcare education. More importantly, its potential in student education and recruitment to MH professions is essential to investigate. Lastly, this study also holds relevance to healthcare workforce leads and individuals spearheading recruitment initiatives in urging them to consider the role of experiential learning in their efforts.

The findings should be considered in light of its main limitations. First, no baseline measure of students' interest and knowledge regarding MH careers was taken. This limits our ability to determine the extent of our programme's impact, as we cannot assess changes in students' attitudes and knowledge purely as a result of attending this course. Second, our study lacked longitudinal evaluation. This would help assess the long-term impact of the programme and verify whether this innovative approach allowed students to make informed career choices. Importantly, it would indicate whether this programme actually succeeded in recruiting new entrants into mental healthcare professions. To tackle this, future research should focus on taking baseline measures as well as incorporating a longitudinal analysis. This would provide stronger conclusions regarding the impact of SBE programmes on career choice.

It is important to note this is a pilot study, merely exploring the potential of SBE in MH and career education at a brief level. Given that this is just a preliminary study in this research area, there remain many avenues for future development that could help build a strong evidence base for this topic. Therefore, further investigation is warranted based on this pilot study.

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Competing interests

There is no conflict of interest to be disclosed for this original research paper. The cited information in table 1 are not from an actual patient. Any resemblance to a real person, living or deceased, will be coincidental.

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