Paramedic students' experience and perceived value of a clinical simulation centre

Abstract

Background: The emergence of new technology and innovation has seen dedicated simulation centres being designed and built to assist with the development of a range of professionals within the ever-changing healthcare setting. Focusing on the university environment, this study examined the extent to which paramedic students perceive these simulation centres as efficient and effective learning spaces. Methods: Using evaluation research, data were collected from 33 students studying paramedic science at a London university. An online questionnaire was used to measure student engagement, perceived value, impact and sustainability of a simulation centre. Findings: Participants primarily perceived the simulation centre as having high value and a good impact on their learning and development, although some concerns were raised regarding its utilisation and general usability. Conclusion: While large-scale simulation centres seem beneficial to learning, they need to be fully integrated into the curriculum to maximise their impact on preparing students for their forthcoming role.

Keywords:

- Simulation.
- Paramedic.
- Education.
- Pre-hospital.
- Curriculum

Key Points:

New affordable technologies and the need to supplement clinical placements has led to a greater prevalence of simulation centres within universities delivering healthcare programmes

To maximise its overall effectiveness and achieve the required level of theory-to-practice transition, simulation must be fully integrated into the curriculum as another pedagogical approach

Facilities in simulation centres need to be easily accessible so students can meet their own learning needs according to their personal learning styles

Academic support during simulation sessions ensures students can develop both cognitive and practical skills without the risk of deviating from the syllabus

Questions:

- As a form of experiential learning what are the benefits of simulation over other learning strategies?

- Which of the primary types of fidelity associated with simulation is most important?

- Are simulation-based activities an effective alternative to clinical placements?

Introduction

As healthcare education continues to develop, so have the variety of approaches used to deliver the various curricula. One such route is in response to the reduction of capacity within clinical settings, with simulation frequently replacing clinical hours (Aebersold, 2018). Recently, this has been more evident because of the COVID-19 pandemic, where policy change and a reduction in clinical educators available to support students led to a greater need to expand the use of simulated learning activities to supplement and replace existing teaching methods (Sani et al, 2020; Haruzivishe and Macherera, 2021; Stout et al, 2021). For paramedics, the importance of simulation as part of the greater learning environment is recognised nationally by both their professional body (College of Paramedics, 2017) and regulator (Health and Care Professions Council, 2017). All this has led to higher education institutions and healthcare trusts investing a lot of time and money into the development of simulation facilities, with the aim of increasing students' exposure to experiential learning and providing staff with the capability to enhance these opportunities (Kunst et al, 2017; Alinier and Heinrichs, 2019; Senvisky et al, 2021; Alinier and Oriot, 2022). Galvanised through the emergence of affordable technologies, simulation centres have become more prevalent in these organisations (Alinier and Newton, 2013; Power et al, 2013). By providing dedicated spaces where students can develop their knowledge and skills within varying types of realism-based environments, they are preparing students to deal with a range of clinical situations that they will most likely encounter in their professional life. The aim of these facilities is to create a learning environment where students

contextualise their theoretical and practical studies (Aarkrog, 2019; Brown, 2019) with a consistent approach (Makransky et al, 2016; Shin et al, 2019; Yauger et al, 2020). Their use has been predicated in no small part on the potential lack of structure afforded to students when undertaking clinical placements (Haruzivishe and Macherera, 2021; Stout et al, 2021), where students can sometimes feel lost or ignored (Baraz et al, 2015). However, the presence of advanced simulated environments does not necessarily lead to their effective use (Motola et al, 2013), nor does it necessarily affect the students' learning and readiness to undertake the role of a paramedic (Studnek et al, 2011).

As has been seen with distance learning, providing an environment that engages students while offering an interesting way of learning is important (Sadideen et al, 2012; Shin et al, 2019; Idris et al, 2021). Being able to encourage students to control their own learning environment allows them to optimise their overall performance and is essential to their ongoing development (Motola et al, 2013; Alshammari et al, 2018), something that more traditional teaching methods such as lectures do not always achieve (Ramnanan, 2017; Kennedy et al, 2019). Nonetheless, simulated activities are only as good as the student's engagement and the learning support provided. Given their nature, students could easily find themselves going through the motions without actively developing knowledge and skills (McCoy et al, 2016). Any perceived benefit hinges on a curriculum that integrates simulation within the overall programme of study effectively (Stefanidis et al, 2015), and having a learning environment that provides access to suitable learning opportunities through the use of

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appropriate equipment and academic support is integral to this (Alshammari et al, 2018; So et al, 2019). These factors may explain the general lack of enthusiasm to engage with simulated events often experienced by students (Stefanidis et al, 2015; McCoy et al, 2016) and may directly lead to the decreased levels of 'psychological fidelity', which is often regarded as a reason for the ineffectiveness of simulated learning activities (Lioce et al, 2015; Harder, 2018). The literature related to the effectiveness of simulation is limited (Soorapanth and Young, 2015; Sarkies et al, 2017), with the focus being on the conceptual ideas of how it works and the levels of fidelity that can be achieved. Nonetheless, a number of studies have identified an increase in students' overall confidence levels when managing clinical situations following simulation (Bowling and Underwood, 2016; Hogg and Miller, 2016; Murphy et al, 2016). However, increased clinical confidence has also been achieved through the use of case studies or seminars in education (Bowling and Underwood, 2016; McNair et al, 2016), which supports the view that no singular pedagogical method benefits all students (Stefanidis et al, 2015). Providing accessible and adaptable learning environments is key to fostering appropriate developmental processes, although this can be challenging (Sadideen et al, 2012; Shin et al, 2019). The 'individualised learning' approach in simulation can provide a self-directed process (Zulfiqar et al, 2018), with students progressing at their own pace while targeting identified areas of weakness (Kennedy et al, 2019; Alshammari et al, 2018).

By researching students' experiences and perceptions of a simulation centre, this study sought to examine their impressions of the efficiency and

effectiveness of the centre and the extent to which it contributes to how prepared they were to undertake the paramedic role.

Aims

The study had two aims:

- To examine students' perceptions of the extent to which a simulation centre is an efficient and effective learning environment for paramedic students
- To examine the extent to which students perceive that a simulation centre contributes to their level of preparedness to undertake their clinical role.

Methodology

This study, which took place from July 2016 to May 2017, used evaluation research with the iterative evaluation model (IEM) for improving online educational resources (Ooms and Garfield, 2008) as the theoretical framework. IEM is a validated evaluation model involving four components: learner engagement; perceived educational value; impact on attitudes, knowledge and skills; and sustainability (the ongoing ability for the resource to meet its intended goals). The study was based around evaluation, so there was no need for Health Research Authority approval. The university's faculty research ethics committee decided this study did not require a full ethics review.

Participants and Sampling

All students studying paramedic science within a London university were invited to participate, regardless of where they were within their programme of study. This included those studying a foundation (FdSc) or bachelor of science (BSc) degree. Recruitment was through an announcement on the course-specific virtual learning environment and via email. A non-probability sampling approach was used with the intention of gaining as many participants as possible.

Study setting

A paramedic clinical simulation centre (PCSC) at a London university was the study's focus. Based in the faculty of health, social care and education, like similar centres, it is designed to enhance the learning experience and development of healthcare students. It consists of three dedicated environments: the immersion room (IR); the simulation suite (SS); and the clinical skills laboratory (CSL). The university description of them is give in Table 1. Each room has its own purpose, although they can all be used as classrooms to maximise the interactive nature of the centre. High-definition audio-visual recording and playback throughout support the learning, debriefing and feedback process to enhance the overall learning experience (Zhang et al, 2020; Schertzer and Waseem, 2021).

Data collection

A questionnaire, administered online via SurveyMonkey, was developed using the tailored design method (Dillman et al, 2014). Face and content validity were

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ensured through review of the questionnaire by paramedic faculty and, before administration, a pilot study was undertaken with three past students. This led to minor modifications to a few questions to ensure the participants had a clear understanding of what was being asked. Using 103 Likert-type scale questions, eight open-ended questions and three demographic questions, the questionnaire addressed four themes: student engagement; perceived value; impact on knowledge, skills and practice; and sustainability. Impact on knowledge and skills was measured using the 34 key areas derived from the paramedic curriculum guidelines (College of Paramedics, 2017) ensuring the process was standardised. Participants could skip questions throughout the questionnaire based on their knowledge or relevance of the topic to their exposure to and experience of simulation.

Data analysis

Descriptive statistics were conducted using statistical software (SPSS v.23. The Likert-style questions were coded as follows: disagree=0; somewhat disagree=1; somewhat agree=2; and agree=3. The coding scheme scores were then used to compute means and standard deviations to identify strengths and areas for improvement. Because of the small sample size, medians were also reported. Responses to the open-ended questions were analysed qualitatively using the framework method (Gale et al, 2013), which is becoming increasingly popular in medical and health research (Gale et al, 2013). The themes and subthemes emerged from a thorough reading and rereading of the responses.

Results

Of the 187 paramedic students (100 BSc/87 FdSc) studying at the time, 33 completed the questionnaire, giving a response rate of 17.6%. Of the participants, 25% were enrolled in the FdSc programme and 75% in the BSc programme. More than 83% of them were direct entry and the remaining 17% were in service. While Van Mol (2017) suggests that an average response rate of 30% can be achieved for online surveys, recent studies have seen a diminishing return because of a number of design and human factors (Saleh and Bista, 2017). Nevertheless, clear themes emerged from the data which can be used to enhance the learners' experiences and improve the simulation centres. The quantitative data demonstrated the effectiveness and impact of the three environments on students' development in the areas of knowledge, skills and practice (Table 2). To support this, data on the perceived learning opportunities and benefits were recorded (Table 3), and the following four core themes of access, engagement, support and sustainability were identified:

- Access: the majority of students somewhat agreed that they were able to book one of the three environments easily at the time they wanted (IR: 69.7%; SS: 75.8%; CSL: 72.7%)

- Engagement: on average, students used both the SS and CSL most often as part of led, directed and non-directed learning

- Support: more students (45.2%) felt they needed greater support in using the IR than the CSL (38.71%) and SS (16.1%). Also, more students

(25.8%) felt that the support provided in the IR was less appropriate than that in the SS (9.7%) and the CSL (9.7%)

- Sustainability: students' responses were overwhelmingly positive towards the sustainability of the PCSC.

The qualitative data were aligned to both support and expand these quantitative themes. Following analysis of the open-ended questions, the following six themes emerged:

- Perceived value: the data support students' views around the perceived need and availability of support in the varying environments

- Engagement: of the 12 who responded, seven felt that engagement with the PCSC could be improved through longer opening hours

- Impact on learning: 28 students stated they were able to link theory to practice when using the PCSC. However, five said their experiences of the PCSC did not feel authentic. Nonetheless, 12 of 16 responses indicated that there were good links between lectures and the activities the students undertook in the PCSC, especially the SS. Students also indicated that, on the whole, situations were realistic and gave them good practice in paramedic skills

- Challenges: Eight out of 14 responses identified a need for more equipment/space and more time when large groups were using the PCSC

- Recommendations: two main themes emerged when students were asked how the PCSC could be improved, namely: better use of the IR

with appropriate academic support; improved access (e.g. increased frequency, outside office hours) and larger space

- Sustainability: eight students responded when asked to give any additional comments about their experiences in the PCSC, with the majority commenting on how good their experience of using the PCSC was.

Discussion

With the introduction of simulation centres worldwide, the opportunities afforded to various clinical programmes have continued to grow. While these facilities offer a new environment to enhance the development of knowledge and a range of skills, their use must be appropriately integrated within the curriculum to fully engage students by improving the overall learning experience (Aebersold, 2018).

The data collected in this study have provided not only a greater level of understanding about the overall value and impact of simulation centres and their sustainability but also new insight into how students perceive their engagement with simulated learning and how this benefits their development and perceived levels of preparedness for their role.

In this setting, students thought that access to the PCSC was fairly good, allowing them to use it on a regular basis. The diverse nature of the facilities within it meant they could work independently or in small groups in a number of

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locations, undertaking a variety of learning activities and receiving peer or lecturer feedback as they progressed.

Students highly rated the SS because of its ability to mimic the environments and activities seen within their clinical work and placements. This is becoming more important as the number of health students requiring clinical placement hours has continued to rise and situations, such as those seen within the COVID-19 pandemic, meant fewer clinical placements were available (Williamson et al, 2020; Sani et al, 2020; Stout et al, 2021).

A common theme was around students wanting more access outside the normal 9:00–17:00 working day. This was previously discussed by Motola et al (2013) and Alshammari et al (2018), who identified the importance of creating an environment where students can optimise their performance while controlling their own development.

Irrespective of setting, being given the freedom to develop their knowledge and practice their skills in a safe, controlled environment at their own pace is important for students to build their confidence (Mortimer, 2018), but competent support is also vital to ensure that any simulated learning is effective (Caroll and Eaton, 2019).

The importance of support and an effective pre-briefing and debriefing process facilitated by trained staff was discussed by Sawyer et al (2016), So et al (2019) and Alinier and Oriot (2022), and demonstrated by Alshammari et al (2018) in their study of Asian nursing students. The present study supports this in relation to the IR, which students perceived as an ineffective learning environment when

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suitable faculty staff are not present. This absence of support often resulted in the room being used just as an open space, where students practised skills without using any enhanced immersion.

Support for and during learning within simulation was a recurring theme throughout this study, despite the various levels needed within the different rooms. Primarily concerned with clinical and academic support and less related to the use of equipment or technical devices, this was predominantly provided during planned sessions and as part of the taught day.

While the authors know that led, directed and non-directed learning took place in all the three rooms, they did not investigate how frequently each strategy was used. It was clear that any additional hours of supervision and guidance by faculty members was provided sporadically, such as during lunch or after the planned day had ended and was solely reliant on whether faculty staff were available. This support mechanism is an important factor, as a reduced structure and debriefing process can discourage students from accessing such facilities in the future (Motola et al, 2013; Carroll and Eaton, 2019).

Despite this issue, students' perceptions of simulation were very positive and echoed the findings of other studies that a good level of fidelity and communication are seen as essential to effective learning (Lemay et al, 2018; Bogossian et al, 2019). Students can see its potential benefitsand can structure their studies accordingly.

It is imperative that the use of simulation centres is an integrated part of the curriculum rather than an add-on (Stefanidis et al, 2015; Aebersold, 2018).

Currently, students perceive that simulation activities link well to their lectures allowing for a greater level of theory-to-practice transition and closing the theory-practice gap (Makransky et al, 2016; Brown et al, 2019). However, as Dudding et al (2018) discuss and the Unver et al (2018) study of Turkish nursing students shows, more needs to be done to fully integrate this style of learning into the wider curriculum. Through development of a suitable support system and provision of greater access and opportunities, students are more freely able to solidify their individual learning needs and engage to a greater extent (Humphreys, 2013; Sawyer et al, 2016; Chernikova et al, 2020).

Students by their very nature are always developing in both their knowledge base and the way in which they learn (Hu et al, 2021). Therefore, as Cadorin et al (2012) demonstrated in their study of Italian nursing and radiology students, diversity in terms of levels of knowledge, understanding and skills is varied and requires education that is tailored to their needs to be provided; all too often, certain students fall behind (Shin et al, 2019; So et al, 2019).

Presenting environments and situations that provide stimulating learning events is essential to increasing student engagement (Sadideen et al, 2012; Shin et al, 2019; So et al, 2019; Idris et al, 2021). In addition, providing activities and resources so students can excel beyond the expected objectives while giving them control of their own learning is critical to them achieving a positive outcome (Motola et al, 2013; Alshammari et al, 2018; Kennedy et al, 2019).

As curriculums develop and more health professionals are educated and trained, new ventures such as simulation centres are at risk of having a short

lifespan and could easily become a selling point for an institution or course. This may result in their potential being wasted (Brandão et al, 2018; Delisle and Hannenberg, 2020).

It is therefore important to evaluate the use and impact of such educational facilities so that institutions can make evidence-based decisions on how best to incorporate their use within their curriculum. To this end, the paramedic faculty being studied has used available data such as that in this research and undertaken significant work to improve the use of simulation within the curriculum and engage students to a higher level, thereby maximising its overall impact and associated benefits.

Limitations

This study has a few limitations. First, it was undertaken at a single university and focused on a newly developed simulation centre.

Second, while its focus was on student perceptions of the PCSC, these facilities are clearly only part of what is needed to provide an efficient and effective learning environment. A greater understanding of the activities that are facilitated within and the full range of support accessible to students was not explored as part of this study.

Finally, the questionnaire had a low response rate, which limits the generalisability of the study results. The tailored design method was used to develop and administer the questionnaire with the aim of increasing response

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rates and minimising the burden on participants. However, reasons for low response rates are complex, with the length of the questionnaire being one factor. Fewer students responded to the questions near the end of the questionnaire, so it is likely that they became fatigued and their responses may potentially be less accurate. As a result, findings need to be interpreted with caution.

Future studies should consider modifying both recruitment and data collection strategies to engage more students with research. While participants did not have to answer every question, a shorter questionnaire or series thereof may facilitate greater engagement and strengthen the final data. Allocating a time slot within the student schedules or alternative data collection methods could be considered.

It is also important to note that while means are presented, given the small sample size, they can be used only to identify a trend in the data and need to be interpreted with caution.

Conclusion

With the greater use of simulation and introduction of simulation centres worldwide, the opportunities afforded to varying clinical programmes have continued to grow, and the decision to invest in simulation centres seems to have been the right one.

However, it is imperative that, while these facilities do offer a new environment in which students can develop knowledge and skills to maximise their impact

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and effectiveness, it is essential to fully integrate their use within the curriculum. As this study has demonstrated, simulation centres of this type are essential in enhancing the overall learning experience and development of students' confidence, knowledge and skills, as well as their overall ability to excel academically and professionally. Such centres do not work in isolation and an effective infrastructure with suitable support mechanisms and developmental opportunities available to all learners is imperative to maximise the overall impact of the learning environment.

This is something higher education institutions worldwide need to instil in their programmes as they learn to educate in line with the limitations associated with situations such as the COVID-19 pandemic.

Recommendations

Simulation as an additional pedagogical approach to learning has shown its worth in this and in previous studies. However, how simulation is used within the curriculum is not always as effective as it could be, and it is imperative that educators that provide education/training facilities understand the potential of simulation learning to complement the academic experience of students.

Simulation should be integrated to complement and expand the learning environment, so simulation rooms are used for their intended purpose, not just because they are available.

Having facilities that are not available when students want or need them most to practise their skills can create barriers to learning and motivation. Accessibility

of facilities outside standard teaching hours, like access to the library, is desirable if not essential to offer students the ability to consolidate what they have learned through the day.

Finally, providing adequate academic support in simulation centres is essential. Practising alone and within groups is important as everyone learns differently, but the availability of a lecturer who can provide both a structured pre-brief and immediate debrief that facilitates guided reflection has a positive impact on the level of support perceived by students, as well as on their safety (Lane and Mitchell, 2013; Alinier and Heinrichs, 2019; Zhang et al, 2020; Schertzer and Waseem, 2021; Alinier and Oriot, 2022). Furthermore, it limits the likelihood of negative learning, where students develop misconceptions and poor practice when transitioning theory into practice.

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Table 1. Paramedic Clinical Simulation Centre (PCSC) Room Descriptions	
The Immersion Room (IR)	*'Through the use of hi-fidelity projectors supported by atmospheric enhancements such as lighting, sound and a smoke machine, this room provides a fully immersive and interactive space enabling students to experience a range of diverse environments and comprehensively enhance the educational experience'.*
The Simulation Suite (SS)	*'Containing several static locations that are most commonly experienced by paramedics, this suite includes two ambulance saloons that are fully fitted to the generic standard of the London Ambulance Service, and three domicile rooms including a kitchen, a bathroom and a bedroom, all of which are fully accessible and allow for bespoke simulations.*
The Clinical Skills Lab (CSL)	*'This room comprises of a large floor space and worktops where students can practice a range of technical and practical skills using a variety of anatomical models and manikins'.*

Provided by Paramedic Science Department, St George's University, London.

An interactive view of the rooms can be accessed at: https://www.sgul.ac.uk/study/life-at-st-georges/campus-life/educational-facilities/paramedic-simulation-suite

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Table 2. Students' perceptions of the impact of the PCSC and the most effective learning environment						
		Impact of PCSC		Most effective learning environment		
Key areas	***n***	**Median**	**Mean (SD)**	**IR**	**SS**	**CSL**
Basic and advanced life support	25	4	3.80 (0.40)	24.00% (6)	72.00% (18)	4.00% (1)
Team working	25	4	3.54 (0.64)	24.00% (6)	76.00% (19)	0.00% (0)
Communication	25	4	3.48 (0.85)	20.00% (5)	80.00% (20)	0.00% (0)
Administration of medications	25	4	3.44 (0.70)	8.00% (2)	40.00% (10)	52.00% (13)
Clinical decision making	25	4	3.40 (0.75)	20.00% (5)	68.00% (17)	12.00% (3)
Critically injured patient	25	4	3.40 (0.69)	28.00% (7)	64.00% (16)	8.00% (2)
First Person on Scene	25	3	3.40 (0.57)	40.00% (10)	56.00% (14)	4.00% (1)
Command & Control	25	4	3.36 (1.02)	36.00% (9)	64.00% (16)	0.00% (0)
Patient / Team safety	25	4	3.28 (0.96)	32.00% (8)	68.00% (17)	0.00% (0)
Detailed physical examination	25	3	3.28 (0.78)	8.00% (2)	84.00% (21)	8.00% (2)
Assessing clinical observations	25	3	3.24 (0.91)	12.00% (3)	80.00% (20)	8.00% (2)
The effect of interventions	25	3	3.12 (0.82)	20.00% (5)	72.00% (18)	8.00% (2)
Pain assessment and management	25	3	3.00 (0.98)	20.00% (5)	80.00% (20)	0.00% (0)
Moving and handling of patients	25	3	2.96 (1.04)	20.00% (5)	80.00% (20)	0.00% (0)
Management of multiple casualties	25	3	2.92 (1.06)	48.00% (12)	48.00% (12)	0.00% (0)
Medical Terminology	25	3	2.88 (0.86)	4.00% (1)	44.00% (11)	52.00% (13)
Multi professional team working	25	3	2.84 (1.01)	28.00% (7)	72.00% (18)	0.00% (0)
Triage and prioritising care	25	3	2.84 (1.01)	28.00% (7)	72.00% (18)	0.00% (0)
Pathological changes of commonly encountered conditions	25	3	2.80 (0.85)	8.00% (2)	80.00% (20)	12.00% (3)
Anatomy and physiology	25	3	2.80 (0.80)	0.00% (0)	12.00% (3)	88.00% (22)
Obtaining a comprehensive health history	25	3	2.80 (0.75)	8.00% (2)	88.00% (22)	4.00% (1)

Topic	N		Mean (SD)			
Evidence-based healthcare	25	3	2.68 (0.97)	4.00% (1)	80.00% (20)	16.00% (4)
Pathophysiological changes	25	3	2.67 (0.85)	4.00% (1)	48.00% (12)	48.00% (12)
Differential Diagnosis	25	3	2.48 (0.81)	12.00% (3)	80.00% (20)	8.00% (2)
Principles of pharmacology	25	2	2.28 (1.04)	0.00% (0)	12.00% (3)	88.00% (22)
Referral Pathways	25	2	2.04 (0.87)	16.00% (4)	76.00% (19)	8.00% (2)
Minor injury and/or illness	24	3	3.28 (0.66)	12.50% (3)	79.17% (19)	8.33% (2)
Dynamic risk assessments	24	3	3.12 (0.91)	45.83% (11)	50.00% (12)	4.17% (1)
Formulation of a diagnosis	24	3	3.08 (0.89)	12.50% (3)	79.17% (19)	8.33% (2)
Infection prevention and personal protective equipment	24	3	3.00 (0.94)	16.67% (4)	62.50% (15)	20.83% (5)
Patient best interest and patient advocacy	24	3	2.64 (0.89)	20.83% (5)	70.83% (17)	8.33% (2)
Consent and capacity	24	2	2.52 (0.85)	16.67% (4)	79.17% (19)	4.17% (1)
Safeguarding	24	1	1.72 (0.87)	12.50% (3)	75.00% (18)	12.50% (3)
Mental health conditions	24	1	1.68 (0.88)	16.67% (4)	75.00% (18)	8.33% (2)
	Coding scheme - Impact: No impact = 1; Minor impact = 2; Impact = 3 and Major impact = 4					
	Coding scheme - Most Effective Learning Environment: Green = 1st choice; Amber = 2nd choice and Pink = 3rd choice					

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Table 3. Students' perceptions of the learning opportunities and benefits of the Paramedic Clinical Simulation Centre (n=30)							
	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Median	Mean	SD
The Paramedic Immersion room (360 degree/projected) provides good learning opportunities	10.00% (3)	6.67% (2)	23.33% (7)	60.00% (18)	4	3.33	.98
The Paramedic Simulation Suite (ambulances/rooms) provides good learning opportunities	3.33% (1)	0.00% (0)	10.00% (3)	86.67% (26)	4	3.8	.6
The Paramedic Clinical Skills Lab (worktop/part manikins) provides good learning opportunities	0.00% (0)	0.00% (0)	10.34% (3)	89.66% (26)	4	3.9	.3
I engage in peer-learning when using the Paramedic Clinical Simulation Centre	3.33% (1)	3.33% (1)	13.33% (4)	80.00% (24)	4	3.7	.69
I benefit from working with my peers in the Paramedic Clinical Simulation Centre	3.33% (1)	0.00% (0)	10.00% (3)	86.67% (26)	4	3.8	.6
I learn a lot the times I spend time in the Paramedic Clinical Simulation Centre	0.00% (0)	0.00% (0)	20.00% (6)	80.00% (24)	4	3.8	.4
My experiences of the Paramedic Clinical Simulation Centre feel authentic	6.67% (2)	10.00% (3)	23.33% (7)	60.00% (18)	4	3.37	.91
I link theory to practice when using the Paramedic Clinical Simulation Centre	0.00% (0)	6.67% (2)	10.00% (3)	83.33% (25)	4	3.77	.56
All percentages have been rounded to two decimal places resulting in total figures sometimes not equalling 100%							
Coding scheme: Disagree = 1; Somewhat disagree = 2; Somewhat agree = 3 and Agree = 4							

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