## ORIGINAL RESEARCH

# Educating undergraduate general nursing students to conduct Mental State Assessments using high fidelity video simulations that develops learning in the affective domain

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### ABSTRACT

Nursing students require a range of clinical skills to contribute as part of the mental health care team, we would argue that one of the quintessential skills is the ability to complete and accurately record a Mental State Assessment (MSA). Teaching students how to complete a MSA using high fidelity video simulations (HVFS) prepares them for the reality of clinical practice including cognitive skill development and emotional readiness for clinical practicum in acute mental health care settings. In this study, three HVF simulations were created to facilitate students learning, based on well documented evidence supporting the use of video content as a learning media. However our focus is not only on cognitive skill development in conducting mental state assessments, but in distinguishing the approach to learning in the affective domain. Using this method, students learn to confront and manage their own feelings, beliefs and attitudes and in turn regulate their emotional responses in clinical situations. Pre and post workshop evaluations completed by students for the past three years has resulted in consistently high levels of confidence in ability to conduct a MSA after the workshop. The paired $t$ test was used to calculate the difference between pre and post workshop confidence scores, revealing the two-tailed $p$ value of less than .0001 which is considered to be extremely statistically significant. Therefore, it can be concluded that students completing the 3-day workshop had a significant increase in confidence and competence in performing MSA's.

**Key Words:** Undergraduate nursing students, Mental State Assessment, High Fidelity Video Simulation, Experiential learning approach, Learning in the affective domain

## 1. INTRODUCTION

Third year general nursing students completing a Bachelor of Nursing program are prepared for their final practicum in the specialised area of mental health nursing by engaging them in High Fidelity Video Simulations (HFVS) that provide education on how to conduct and document a MSA. Throughout the three workshop students are introduced to a variety of experiential learning activities that are designed to gradually increase the student's level of comfort in risk taking (i.e. performing in front of others) to facilitate integra-

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tion of learning from the cognitive domain to the affective domain.[1] Engaging students in HFV simulation activities that are realistic have been shown to maintain authentic learning opportunities and also enable collaborative enquiry as students work closely together. A learning environment is structured to provide realistic clinical scenarios to achieve a deep level of immersion in the simulation, and to ensure that appropriate risk management and clinical assessment skills could be applied in contemporary mental health care settings.

Students require a set of skills in order to successfully function in acute mental health care settings, arguably the most important of these would be the ability to complete and accurately record a MSA. Students enrolled in the mental health specialty course are taught how to complete a MSA using HFV simulation techniques that prepares them for their final practicum both in cognitive skill development and emotional readiness for the reality of clinical practice.

During clinical practicum, nursing students are likely to engage with patients a variety of altered mental states, which may include psychotic phenomena, bipolar disorders (in particular elevated mood, i.e. mania), as well as anxiety and depression. Psychosis and mania are frequently a challenge for students to assess due to patients typically presenting in a hyper aroused state, and expecting inexperienced students to conjunctly be mindful of risk management strategies whilst performing a thorough clinical assessment can be difficult. Patients who present with depression can also be difficult for students to assess because of long pauses in the conversation and lack of motivation and subsequent engagement on behalf of the patient. For these reasons the following three clinical presentations of psychosis, mania and depression were chosen as the most relevant diagnoses for the development of HFV simulations.

## 2. THREE DAY EXPERIENTIAL WORKSHOP

### 2.1 Techniques used in the three day workshop

Kolb's Experiential Learning Model[2] provides the pedagogical principle that informs this approach to teaching and learning at the experiential level. Barnett et al.[3] describe experiential learning as supporting the development of the "action" domain. This develops as a consequence of reflecting on the experience of doing, while also supporting the development of "self" and professional identity through the demonstration and experience of professional concepts such as becoming a reflective practitioner. During the three day workshop students are introduced to a number of advanced mental health assessment tools and are provided the opportunity to practice using the tools in a supportive experiential learning environment. The first day focusses on increasing

the level of risk that students engage in by exposing them to a variety of experiential exercises and role plays. Progressively increasing the level of risk taking during the workshop provides a graduated approach to the final day where students are immersed in HFV simulations, and a level of mastery is achieved to complete MSA's.

### 2.2 How the video simulation is utilised

Students were introduced to three patients in the video simulations – Donna, Mike and Peter. Each clinical simulation had a duration of approximately 15 to 20 minutes. Prior to the simulation commencing students were encouraged to take notes as if they were engaged in the clinical assessment and to provide future reference to assist in completing the MSA documentation. The simulation commenced, and after a few minutes faded to black to provide students five minutes to formulate a question they would like to ask the patient if they were in the room actually conducting the MSA. During this time, students were encouraged to work together and articulate a concise question. They were advised to rehearse the question silently in preparation for the next stage of the simulation where they were required to verbalise the question aloud. Upon the completion of 5 minutes of black screen a close-up image of the patient faded up to provide a visual cue, a strategy based on Linz[4] who states that visual images can "evoke emotions, abstract ideas, and the shared human experience".

Students were then encouraged to volunteer to stand up and ask the question to the still image as if they were asking the question in a real life clinical assessment situation. The physical act of standing and speaking is integral to the affective learning experience. Students are prompted to be mindful of, and pay attention to their own emotional responses when verbalising their question to the image of the patient on the screen. After all students have had an opportunity to ask a question the video resumed. It was noted that the questions the students asked were often identical to the questions asked by the mental health clinician in the video. This was affirming for students and built their confidence for the next cycle of the simulation where the video faded to black once again. This process was repeated three times for each of the three different clinical simulations.

## 3. VIDEO CONTENT

The first video was of a young woman portraying to be a patient with mania, experiencing lack of sleep, sexually promiscuous behaviour and some delusional beliefs about her health status. As a fast-paced and energetic video, it was selected to be played first as it stimulated students and engaged them immediately, motivating students to interact with the media

and focus their questions to learn more about the patient. They were typically excited and keen to ask questions, and demonstrated full engagement in the experience.

The second video was of an aggressive male with an acute drug induced psychosis, experiencing auditory hallucinations and paranoid thoughts. The tone of this video set students back on caution mode and they were more tentative when developing and asking their questions. This palpable change in energy was discussed in the post scenario debrief where students reflected on their emotional response to the video, as well as their experience of verbalising their questions to the still image of the aggressive and psychotic male.

The final video was of a depressed suicidal male, who was isolated from his children following a divorce. This video brought the emotional level in the room to a low edge especially when the patient discussed his suicidal thoughts and plans. Students took great care in formulating their questions and appeared quite nervous at times. As was done previously, the level of emotional response to the video was discussed in the post-simulation debrief. It was during the debriefing sessions that students assimilated their individual and group learnings together. Students shared their learnings during the process of self-reflection, and found value in listening to each other's reflections about the challenges they experienced in asking difficult, yet pertinent questions.

## 4. METHOD

Students were asked to rate their level of confidence in completing a MSA prior to commencing a three day mental health workshop using a numeric scale ranging from 1 to 10, with one being not confident and ten being very confident. At the conclusion of the workshop students were asked to rate themselves again based on their perceived level of confidence in completing a MSA. Comparative analysis of pre and post workshop confidence ratings for three consecutive years (2016-2018) revealed increased levels of confidence in completing MSA's as reported by students, though student numbers were not substantial enough to warrant conducting a more detailed analysis. However the 2018 workshop consisted of a larger group of students, the results of which are reported below.

## 5. RESULTS

All students (n = 40) attending the 2018 three day MSA workshop using HFV simulations completed the pre and post workshop evaluation questionnaire. Basic descriptive statistics were used to analyse and interpret the data. A paired sample $t$ test was conducted to compare pre and post workshop confidence scores. There was a statistically significant difference in pre workshop confidence scores (M = 5.35, SD

= 1.69) and post workshop confidence scores (M = 8.13, SD = 1.18); $t = 10.22$, $p = .0001$. These results suggest that the workshop intervention involving high fidelity video simulations promoting learning in the affective domain significantly increased confidence and competence in performing MSA's.

## 6. DISCUSSION

Previously students learned how to complete a MSA utilising a paper based format, analysing written complex case studies and documenting a MSA using a proforma template supplied by the lecturer. Upon reflection this process lacked fidelity as students were not provided the opportunity to engage in the process of formulating and asking clinical assessment questions to clarify information. In contrast to traditional methods, high fidelity teaching scenarios have demonstrated a measurable improvement in clinical judgment, self-confidence, skills acquisition, and communication skills.[5] Additionally engagement in affective education opportunities has been demonstrated to promote positive behaviours in students such as empathy, self-confidence, teamwork and integrity.[6]

All students reported increased levels of confidence in performing MSA's following the 3-day workshop, with one exception. This particular student rated his pre-workshop confidence as 8, and post-workshop confidence level as 6. The student volunteered discussion about this atypical rating, and commented that prior to engaging in the workshop he thought he had a solid grasp on the theoretical knowledge required to perform an MSA. Being immersed in a HFV simulations revealed a myriad of other skills required to actually perform an MSA, as well as processing his own emotional responses to the scenarios presented. This was a poignant example of a student differentiating between theoretical knowledge and real life experience, integrating learning in the affective domain and self-reflection to bridge the gap between the two. Though post-workshop confidence score was lower than his pre-workshop confidence score, the post score was equivalent to 90% of other students post workshop scores, which demonstrated the shift from perhaps overestimating clinical abilities to a more realistic confidence score when compared to his peers. We would argue that such is the power of HFV simulations, enabling deep experiential learning.

While scenes from movies portraying mental illnesses may have been helpful in providing some affective learning opportunities, they were limited and not considered as high fidelity or powerful enough to invoke emotional responses from students as was demonstrated in the controlled learning environment described above. Rather, three senior and experienced mental health nurses were recruited to play the roles of patients presenting to the Emergency Department for

an initial MSA. The use of video material as a learning tool has previously been reported by Mitra et al.[7] However this unique teaching approach utilises the integration of cognitive skill development in the use of MSA with the conscious effort to blend learning in the affective domain.[8] This merging of pedagogies facilitated students to effectively confront, reflect, and analyse their emotional responses during clinical simulation, ultimately preparing them for the reality of clinical practice. Creation of the HFVS followed a specific process that is outside of the scope of this paper, however was designed to allow actors to draw on their own clinical experience and weave a complex web of stories and clinical nuances that were convincing and arguably high fidelity.

Utilising HFV simulations replicating three altered mental states (mania, psychosis and depression) provided students with an opportunity to interact through the requirement to formulate and verbally ask clinical assessment based questions. Through this engagement activity students were supported in developing and applying their disciplinary knowledge and were guided as to what was an appropriate level of risk taking in formulating and asking questions. The taking of risks is essential to deeply engaged learning at the affective level, Valiga[9] argues that we must develop more learning in the affective domain if we are to develop leaders and risk takers within the profession of nursing. The act of asking questions, witnessing the immediate response, seeing alerted mental states, and being mindful of one's own emotional reactions and responses has the capacity to profoundly challenge students.[10] This increases opportunities for deeper learning in the affective domain.[11]

The use of HFV simulations provides students with the opportunity to observe altered mental states and the presentation of specific mental illness symptoms, while engaging in formulating and asking questions culminating in making appropriate and accurate notation of a MSA. Exposing students to a variety of patients with psychiatric conditions without any previous experiences, clinical knowledge or assessment skills to draw on can be confronting to the uninitiated. In reality, some patients may present in extremely agitated states with psychosis or mania and are difficult for even the seasoned clinician to manage. Students who are confronted with this sort of clinical presentation may be ill-equipped not only to manage the clinical situation but also be naive of their own emotional response to the circumstance. Engaging students in HFV simulations provides an opportunity to learn more about their personal emotional responses, thereby better preparing them for the realities of clinical practice in contemporary mental health settings.

The concept of being able to remain emotionally tidy when interacting with a client is an important skill identified by Gardner et al.[12] Exposing students to HFV simulations that are, by nature, a controlled and supported space provide an opportunity for students to explore a range of emotional responses, facilitating learning about individual feelings, beliefs and attitudes.[13] The use of HFV simulation teaching engages students in an immersive experiential learning scenario that demonstrated the capacity to evoke similar emotional responses encountered in real clinical practice, whilst supporting their professional development and management of boundaries,[14] thereby remaining emotionally tidy.

## 7. CONCLUSION

It is argued that general nursing students need a repertoire of skills to function as an effective team member in contemporary mental health care settings, and a fundamental skill is the ability to conduct and accurately report a patient's mental state. The use of HFV simulations affords an authentic learning opportunity that teaches students how to conduct an MSA while consistently demonstrating increased levels of confidence in a third year undergraduate general nursing student cohort. The paired t test was used to calculate the difference between pre and post workshop confidence scores, revealing the two-tailed $p$ value of less than .0001 which is considered to be extremely statistically significant. Utilising experiential learning approaches that immerse students in clinical scenarios that support appropriate levels of risk taking have promoted deep engagement in learning at the affective level, thereby increasing confidence and competence to undertake their final practicum in mental health care, transforming cognitive skill development to a multidimensional synthesis of clinical capability and emotional readiness.

## CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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