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Developing confidence in mental health students to recognise and manage physical health problems using a learning intervention

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ABSTRACT

Globally, there is increased recognition of a higher prevalence of physical ill health and mortality in individuals with mental health problems. A review of the literature highlighted the need to address deterioration in physical health of those with mental health problems through better recognition and management on the part of mental health nurses. However, mental health nurses have been found to lack confidence and be unsure of their role within this area. The aim of the project was to develop pre-registration mental health students' confidence to be able to recognise and manage physical health deterioration through the use of high fidelity human patient simulation, the development of contextualised clinical scenarios and additional theory around the A to E mnemonic structured assessment. The project involved 95 third year mental health student nurses, using a self-rating pre and post intervention questionnaire to measure their perceived confidence levels and to evaluate the effectiveness of the learning intervention. Findings demonstrate improved overall confidence levels in recognising and managing physical health deterioration in human patient simulators displaying mental health problems.

1. Introduction

Mental health nurses need to be able to recognise and respond to patient's physical health problems in ever changing nursing practice (DH, 2006). Pre-registration mental health nurse education is one area where this can be developed (NMC, 2010). Using advancements in technology, a project was developed by nursing academics within the United Kingdom, using human patient simulation, contextualised clinical scenarios and experiential learning to develop the confidence of mental health student nurses in recognising and managing physical health deterioration in those they are caring for.

2. Background

There is a wealth of contemporary studies illustrating how individuals with severe mental illness have an increased risk of comorbid physical illness including; cardio vascular diseases, diabetes, respiratory disease, HIV, infections gastrointestinal disease and increased early mortality (Filik et al., 2006; McCabe and Leas, 2008; Weiser et al., 2009). People diagnosed with severe mental illness have also been found to be at greater risk of developing metabolic syndrome (McEvoy et al., 2005), which can lead to premature mortality, these individuals being likely to die 25 years earlier than the general population (Parks et al., 2006).

Certain barriers exist for individuals with severe mental illness wishing to access physical health care services, thus contributing to their plight of unrecognised and untreated physical illness. These include diagnostic overshadowing; current symptoms of mental illness; difficulty in navigating services (Lester et al., 2005); a lack of education for service users with mental health problems (DeCoux, 2005) and mental health nurses lacking appropriate knowledge regarding available services to meet the physical health needs of their patients (Phelan et al., 2001: Robson and Gray, 2007; Chadwick et al., 2012). Furthermore, a study by Howard and Gamble (2011) found mental health nurses lacked confidence in the area of providing physical health care and were unsure of their role within this area.

The need to address physical health needs of people with mental health problems can be found in the Chief Nursing Officers' review of mental health nursing (Department of Health (DoH), 2006) which called for competency changes within pre-registration mental health nurse education in the United Kingdom (UK) (Nursing and Midwifery Council (NMC), 2010). An audit undertaken

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by the National Patient Safety Agency (2008) also highlighted the need for mental health nurses to be able to recognise, assess and manage acute physical health deterioration of those with mental health problems. The audit found that mental health nurses were putting patients' lives at risk through a lack of recognition of those who were acutely ill and their inability to use vital emergency equipment, resulting in an increase in mortality rates during cardiac arrest. However, in order to respond to unmet physical health needs, mental health nurses must first be able to recognise such needs. Furthermore, UK National Health Service (NHS) policy drivers, including the Mental Health Strategy (DoH, 2011) and the National Health Service Outcomes Framework (DoH, 2010), advocate mental health service providers need to address the issue of physical ill health. Likewise, the recent Willis report (2015), a collaborative report between Health Education England and the NMC, has called for parity of esteem between mental health, adult and learning disability nursing within nurse education programmes, as a way forward in addressing existing deficits.

These educational recommendations and NHS policy drivers strongly influence the expectations, in terms of knowledge and skills required of the future mental health nurse workforce. Policy expectations include the need for improved screening, care, treatment and partnership working to reduce health inequalities for people with mental health problems. In 2007 the National Institute for Health and Clinical Excellence (NICE) produced clinical guideline (CG) 50, exemplifying early indicators and the management of physical health deterioration. Although this guideline targets adult inpatient services in acute hospitals, it must also be considered in the context of mental health service provision, due to the increase in physical health problems in those diagnosed with mental illness (Robson and Gray, 2007).

Having identified the need to develop mental health nurses ability to recognise and respond to physical health needs, consideration was given as to the methods to employ within pre-registration nurse education. Simulation has been used effectively in healthcare education, allowing students an opportunity to increase their confidence by being able to practice dealing with high-risk events that may happen infrequently (Brown, 2008). Simulation has been described as the reproduction of a real incident where learners can experience an event and practise their skills without any real risks to themselves or to others (Lawre et al., 2006; Broussard, 2008). Simulation has been used within the healthcare arena since the 1940's (Barrows and Tambling, 1980). Within mental health nursing simulation has been predominantly used for the development of; communication skills; the therapeutic use of self; complex crisis management; establishing a therapeutic relationship and de-escalation (Donovan et al., 2003; Edward et al., 2007; Crider and McNiesh, 2011; King and Ott, 2012). Standardised patients have also been used in role-play with the employment of trained individuals or paid actors (King and Ott, 2012). Role play simulation can be used to develop mental health skills for managing mental health emergencies such as dealing with a psychotic patient (Steeves, 2012).

Additionally films and videos, in conjunction with other educational materials, have been used in mental health education to illustrate the assessment of an individual with mental health problems using simulation (Brown, 2008). Where mental health nursing has lacked simulated training the use of virtual reality to develop essential nursing skills including communication, empathy, ethical insight and critical thinking skills has been found to be invaluable (Guise et al., 2012; Kidd et al., 2012). Criticisms of this approach include the frustration for students navigating the virtual environment and the inferiority of this experience to real life interaction (Kidd et al., 2012). Whilst these approaches maybe useful in developing core mental health abilities, they are unable to simulate the experience of physical health deterioration with the associated physiological changes (Brewer, 2011).

When discussing simulation the element of fidelity must be considered. This relates to the reproduction and realism of a situation (Nehring and Lashley, 2009). There are different levels of simulation, which include low, medium and high. High fidelity simulation involves advanced computerised physiological models to replicate real time physiological changes in response to interventions. For example, within a simulated scenario a computerised physiological model could be programmed to snore, replicating a partially occluded airway. In response to this the student may performs a head tilt chin lift to open the airway and the model will respond accordingly by breathing normally (Seropian et al., 2004). However, high fidelity does not always imply high technology, as realism can be produced in a variety of forms, for example role-play within a clinical environment (Cooper et al., 2012). The use of high fidelity human patient simulation as a teaching tool in the area of physical health deterioration has been used in several studies (Cooper et al., 2010; Liaw et al., 2011). In their study of Australian acute and rural health nursing students' Cooper et al. (2010) concluded that simulation has an important role in healthcare education as it has the potential to improve knowledge and skills when using advanced life support computerised mannequins to assess and manage physical health deterioration. Liaw et al. (2011) involved adult pre-registration nurses using a SimMan patient simulator to recognise and respond to physical deterioration. They used the Airway, Breathing, Circulation, Disability, Exposure, ABCDE mnemonic (Resuscitation Council, 2011), as the process to underpin a systematic assessment and management approach. The results demonstrated how simulation impacts positively on student learning by developing their self confidence and competency in assessing and managing the deteriorating patient. However, the study did not address the complexity of recognising physical health deterioration in someone overshadowed by a diagnosis of a severe mental illness (Lester et al., 2005).

Further analysis of the literature surrounding physical health deterioration and simulation was found to be limited within the sphere of mental health nursing. Hermanns et al. (2011) developed an intermediate fidelity simulation scenario whereby a hanging had taken place. Students were expected to identify, assess and manage this situation using the Airway Breathing Circulation (ABC) mnemonic and then by monitoring the patient until they were transferred to hospital. Overall, the findings revealed that the simulation provided a positive learning experience around crisis management and psychiatric intervention. It is suggested simulation at the intermediate level has the potential to enhance student confidence within their clinical practice (Ogilvie et al., 2011). An educational evaluation by Unsworth et al. (2011) explored knowledge and skill development in pre-registration mental health student nurses in recognising physical deterioration in patients with mental health problems. However, in their study some of the scenarios were undertaken by groups of both adult and mental health students. As a result the mental health nurses tended to focus on the mental health assessment leaving the adult students to focus more the physical health aspect and technical skills. While their overall results found that intermediate fidelity was a useful in learning about physical health deterioration, caution needs to be exercised when working with a mixed groups of nursing students.

After reviewing the literature, the project group developed, implemented and evaluated a learning intervention within the pre-registration mental health nurse programme. The aim of the intervention was to develop the confidence of mental health students in recognising and responding to physical health deterioration. This required additional teaching and the employment of high