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Developing Dual Diagnosis Care Curriculum For Nurses In Acute Psychiatric Inpatient Settings

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DEVELOPING DUAL DIAGNOSIS CARE CURRICULUM FOR NURSES IN ACUTE PSYCHIATRIC INPATIENT SETTINGS

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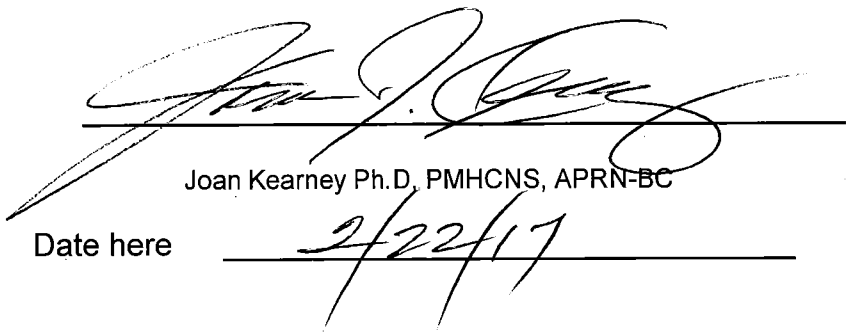

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February 2, 2017

Developing Dual Diagnosis Care Curriculum for Nurses in Acute Psychiatric Inpatient Settings

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Abstract

Patients with co-existing substance use and mental disorder (dual diagnosis) have complex and challenging care needs especially in acute psychiatric inpatient settings. Acute psychiatric care plays a vital role in mental health service delivery and there is evidence that nurses working in these settings often have unmet learning needs regarding dual diagnosis care, posing a challenge to nursing practice. The purpose of this project was to develop an educational module which will equip nurses with the skills and knowledge required to deliver evidence-based dual diagnosis care in acute psychiatric settings. A survey of 74 acute psychiatric nurses was initially completed to identify their learning needs and challenges. This was followed by a comprehensive review of evidence from literature to identify knowledge, skills and competencies needed to deliver dual diagnosis care. Content for the educational module was then validated by a panel of experts. In all, 35 items within 13 content areas were identified and validated to be used in an educational module for acute psychiatric nurses delivering dual diagnosis care. This project translates evidence into practice, contributes to the body of knowledge on dual diagnosis care and provides nurses with knowledge that will improve their confidence and competency in delivering

evidence-based dual diagnosis care. Additionally, this education has the potential to improve patient care outcomes and experiences.

Key Words: Dual diagnosis, concurrent disorder, acute psychiatry, inpatient psychiatry, dual disorder, co-existing disorder, acute mental hospital, substance use disorder, co-occurring disorder, education, training, curriculum development, inpatient psychiatry, acute psychiatry.

Introduction

Patients with co-occurring substance use disorder (SUD) and mental disorder, commonly referred to as dual diagnosis, are known to have complex and challenging care needs (Hunt et al, 2013; Mueser et al., 2005). Other terms used to describe this condition include: concurrent, dual disorder, co-existing, co-occurring and mentally ill, chemically addicted (MICA) (Mueser et al., 2003). To improve patient care experiences and outcomes, dual diagnosis care must be informed by relevant evidence (Hunt et al., 2013). However, although there are a substantial number of patients with dual diagnosis receiving care in acute psychiatric settings, evidence and a literature base to inform care delivery are lacking (Department of Health [DH] UK, 2002, 2006; National Institute of Health [NIH], 2017). The lack of knowledge regarding dual diagnosis care is not just limited to Canada, it appears to be a problem worldwide (Weich & Pienaar, 2009; Ponizovsky et al., 2015; Mental Health Commission of Canada [MHCC], 2012; National Institute for Health and Care Excellence [NICE], 2016).

The current state of acute psychiatric services and care for patients with dual diagnosis has been influenced by the evolving state of mental health service delivery (DH, 2006, 2007; MHCC, 2012). In the last few decades, the paradigm for delivering mental health care has

evolved from institutionalization of patients with mental health care needs to a community based care approach. Unfortunately, this has resulted in the unintended effect of burdening acute psychiatric services with a growing primary population of psychiatric patients whose complex needs cannot be adequately managed in the community. Consequently, acute psychiatric settings are under pressure to deliver care to patients with both mental and substance use disorders (DH, 2006; MHCC, 2012). The lack of evidenced-based knowledge regarding dual diagnosis care in acute psychiatric settings is significant as these settings play a vital role in mental healthcare delivery, providing care to patients who most often do not seek out services voluntarily. Acute psychiatric settings also help connect patients to other mental health and substance use resources (DH, 2006; MHCC, 2012) and as Botha et al. (2014) suggest, they offer a window of opportunity to improve care outcomes for patients with dual diagnosis.

There is an overwhelming need to improve health outcomes for patients with dual diagnosis, especially in acute psychiatric settings (DH, 2006). Several Canadian reports have pointed to a mental health system that is not meeting the needs of patients with mental disorders (MHCC, 2009; 2010; 2012). For instance, 32% of patients have reported their mental health care needs were either partially met or unmet (MHCC, 2012). Common reasons given for the poor quality of care have been listed as lack of coordination and integration of services, lack of adequately prepared health professionals, paucity of good quality research, inadequate resources, and poor focus, to name a few (MHCC, 2012; Hunt et al., 2013; NICE, 2016).

The need for training may even be more pronounced as an evaluation of 256 programs in 11 states in the United States of America found that only 18% of addiction treatment programs and 9% of mental health programs met the criteria for efficient dual diagnosis services

(McGovern et al., 2014). Considering the central role that acute inpatient services play in dual diagnosis care, efforts should be made to address this deficiency and improve the quality of care delivered to this population, with the goal of improving patient outcomes.

Brems et al. (2002) suggest that dual diagnosis care in acute inpatient psychiatry is often overlooked. They further describe it as a diagnostic oversight that reflects inadequate assessment and diagnosis, which can also lead to inappropriate treatment plans and fragmented care (Brems et al., 2002). Recently, attention has been drawn to the need to train practitioners to deliver specialized care required by patients with dual diagnosis (MHCC, 2012; NICE, 2016).

Some identified challenges for patients with dual diagnosis include difficulties in assessment and diagnosis in acute settings, as well as problems with treatment and referral when delivering dual diagnosis care (DH, 2006, 2007; NICE, 2016). Outcomes for patients with dual diagnosis have been historically poor with increased risk for acquiring infectious diseases such as human immunodeficiency virus (HIV) and Hepatitis C (Mueser et al., 2003; Hunt et al., 2013). These patients also have an increased risk of suicide, homicide, violence, incarceration, repeat admissions and other negative care outcomes.

It seems most training programs in nursing, medicine, psychology and social work fail to incorporate curricula dedicated specifically to the assessment, diagnosis, treatment and management of dual diagnosis (Brems et al., 2002). In a survey exploring the training experiences of 174 mental health care providers comprised of 80% nurses in an inpatient psychiatric setting, Brems et al. (2002) found that few providers had received either academic or seminar training on care for patients with dual diagnosis. Over 71% of these practitioners reported that they never received academic training, 80% never attended a relevant workshop/

seminar and 58% never received any in-service training on delivering dual diagnosis care. Unsurprisingly, 90% of mental health care providers in the study rated training for dual diagnosis care as essential to their practice. Despite the lack of education provided to these practitioners, these findings are encouraging as they reveal that mental health care providers recognize the need for further dual diagnosis training.

Other studies have also examined training needs of providers delivering care to patients with dual diagnosis. Schulte et al. (2010), using a longitudinal quasi-experimental design, found when practitioners in outpatient addiction services received dual diagnosis-specific training and support, they delivered more competent care that also helped to improve care outcomes. Although Schulte et al.'s (2010) study had methodological limitations and a relatively small sample size of 46 practitioners from urban/ suburban UK, findings give an indication of how training could impact practitioners' competencies and care outcomes for patients with dual diagnosis.

Studies on training for clinicians in acute psychiatric settings are limited, however, a review of evidence from a study on assertive community outreach by Graham et al. (2006) found practitioners reported increased confidence and felt more equipped with the necessary skills to deliver dual diagnosis care after participating in an educational session. Also, narratives from patients and reports on psychiatric symptoms of patients involved in the study all seemed to suggest a positive outcome when practitioners are trained to deliver dual diagnosis care (Graham et al., 2006).

Qualitative studies that have explored the experiences of mental health workers and service users in forensic settings have similarly described positive outcomes associated with training in dual diagnosis care (Rani & Byrne, 2012; 2014). Findings from an interview of 20

service providers in mental health and addiction services showed increased confidence and improved personal and organizational skills after a brief dual diagnosis training session (Rani & Byrne, 2012). Patients who participated in the training of the mental health workers in Rani and Byrne's (2012) study also reported some sense of accomplishment and satisfaction from taking part in the training and feedback that were collected to inform future sessions (Rani & Byrne, 2014). An additional and related reason to equip acute care nurses with specific evidence-based skills and knowledge related to dual diagnosis care is to decrease reported frustration and prevent burn-out in staff working with this population (Schulte et al., 2010).

Even though it can be argued that there is little research on targeted professional education in dual diagnosis care in acute psychiatric settings, the limited available evidence presented here may be translated to benefit acute inpatient care delivery. Based on the evidence discussed here, the purpose of this project was to develop and validate educational content to equip nurses working in acute psychiatric inpatient settings with the knowledge, skills and competencies required to deliver evidence informed dual diagnosis care.

Design

A mixed-method design was used to develop the content of the dual diagnosis education module. The project had 3 distinct phases; the third phase focuses on the implementation and evaluation of the educational module however, this paper focuses on the first and second phase.

Both phases were dependent on a comprehensive literature review of the evidence. Multiple databases including CINAHL, PsycINFO, PubMed, Cochrane, MEDLINE, and websites such as National Guidelines Clearinghouse and Google Scholar were used to retrieve literature. The literature review included content specific to dual diagnosis: definition, prevalence, etiology, assessments, treatment modalities, acute inpatient care, training and education of practitioners.

Most importantly, the review emphasized selecting components of nursing interventions that could be included in the educational module.

The terminology and keyword phrases used to retrieve literature that met the goals of this project included: *dual diagnosis, concurrent disorder, co-occurring disorder, dual disorder, co-existing disorder, mental health, mental disorder and substance use disorder, education, training, acute psychiatric unit, acute mental hospital and mentally ill chemically addicted (MICA).*

Inclusion criteria included international and national papers published between 2005 and 2016. Exclusion criteria included non-English language publications, those with poor quality research methods and those published more than ten years ago. For material beyond the 10 year limit to be considered it had to be germane and salient. Material focusing outside the adult age range of 18 - 65years was excluded. Editorials, pilot studies, comments, opinions, and studies with outcomes not relevant to the subject were also excluded.

Literature was grouped into four different categories: background, treatment modalities, nursing education and acute inpatient nursing care. In total over 120 articles were reviewed. A total of 24 articles were included to support the content of the survey and educational module.

Phase 1

Methods

Phase 1 consisted of a survey of point-of-care nurses' learning needs and challenges delivering dual diagnosis care. After gaining research ethics board (REB) approval, a 6-page paper questionnaire was developed. With no existing tools and limited studies on acute psychiatric nurses' learning needs and challenges working with dual diagnosis patients, an extensive literature review was completed. Concepts from existing tools on identifying learning needs, published dual diagnosis competencies and the knowledge of scope of practice for acute

psychiatric nurses informed the development of the questionnaire. The 6-page questionnaire was created and piloted on 2 acute care nurses.

The final questionnaire had 68 items, organized into 5 sections: section A focused on demographics and sections B to D, utilizing a 5-point Likert scale, concentrated on dual diagnosis nursing care knowledge, skills and competencies from a nursing perspective. Section E collected qualitative data on challenges and other learning needs which were not covered by the earlier sections. The 6-page questionnaire was administered to 74 consenting acute psychiatric nurses by research assistants. Each questionnaire required 10-15 minutes to complete. Over a 6 week period, nurses delivering care to patients with dual diagnosis in an inner city hospital in Vancouver, Canada completed the survey.

Sample

From a pool of over 168 nurses who worked either part-time or full-time on four acute units in an inner city hospital in Vancouver, BC, 74 nurses consented and participated in a survey identifying learning needs and challenges of acute care nurses delivering dual diagnosis care. Recruitment of participants was with a poster and face-to-face invitation by research assistants visiting the clinical setting.

Data Analysis

Descriptive data analysis was conducted to describe the sample and findings. Data from surveys were completed on paper and then entered into Microsoft Excel 2013 database. Central tendencies statistics and percentages were calculated using a scientific arithmetic calculator. Two skilled researchers independently reviewed and completed a content analysis of the qualitative data of Section E.

Results

Learning Needs and Challenges

Acute psychiatric inpatient nurses who participated in the survey had an average age of 36 years, and most self-identified as female (77%), and of Caucasian ethnicity (70%). Their educational backgrounds were as follows: 35% Bachelor of Science in Psychiatric Nursing (BSPN), 28% Advanced Diploma in Psychiatric Nursing (ADPN), 16% Bachelor of Science in Nursing (BSN) and 5% had graduate degrees. About 39% had 5-10 years of practice. More than half had a regular full-time employment position at the inner city hospital.

In the survey, 74% of nurses agreed or strongly agreed that they had the educational preparation to deliver dual diagnosis care, however about 25% rated their educational preparation prior to registration as poor. Comparing our study to one of the few studies on this subject, Schulte et al. (2010), found outpatient's nurses with 7 years' median work experience with dual diagnosis patients had 80% practitioners who had received co morbidity-specific training. They also found that these practitioners provided high average ratings on both dual diagnosis competency and therapeutic optimism scales (Schulte et al., 2010). These statistics highlight the need to provide nurses with additional dual diagnosis specific knowledge and skills as one quarter of the practitioners in our survey did not feel adequately prepared for dual diagnosis care.

About 80% of acute psychiatric inpatient nurses felt the population of patients with dual diagnosis is increasing and all participants reported that they spend over 50% of their time with dual diagnosis patients. Analysis of these responses points to the need to equip acute care nurses with the knowledge, skills and competencies to deliver evidenced-based care. Almost half (48%) of nurses reported spending 1-3 days a year in "general" continuing or professional

education. About 71% said they would prefer a hybrid (online and a face-to-face) educational session as compared with just online or just face-to-face educational session.

While the majority of nurses felt confident in providing competent independent care to patients with dual diagnosis, 23% (16) did not feel prepared to provide competent independent dual diagnosis care. When assessing how difficult nurses found assessment of dual diagnosis patients' needs, the survey revealed that: 1% (1) found it extremely difficult, 30% (22) very difficult, 51% (38) slightly difficult and 18% (13) found it not at all difficult. When respondents were asked to rate their confidence with administering psychiatric medications safely and accurately, monitoring for therapeutic responses, reactions, side effects, toxicity and potential medication incompatibilities in dual diagnosis care: 1% (1) found it extremely challenging, 15% (11) challenging, 20% (15) neutral, 53% (39) confident, and 9% (7) were extremely confident. One (1%) respondent did not record a response to this question. While the majority of nurses felt competent in administering psychotropic medication to patient with dual diagnosis, 20% were neutral and 16% felt it was challenging to some degree.

Qualitative responses suggested nurses' confidence and knowledge in using evidence-based tools for dual diagnosis requires attention. One nurse stated, "there continues to be a steady increase of patients with dual diagnosis and complex mental health issues. It is essential that we have the education, tools, resources, and experts to help alleviate the strain to all programs within the hospital. We also need to encourage educational institutions to provide more education in school and not to make mental health and addictions an optional requirement". Another also mentioned, "we need access to current research on substances of abuse and treatments".

Three main themes arose from analysis of the survey's qualitative data. Firstly, nurses would like to have educational sessions targeted at nurses' attitudes and personal biases towards

patients with dual diagnosis. Secondly, participants mentioned they would like to learn about current evidence-based care specific to dual diagnosis patients so that nursing care can be tailored to fit this population's unique needs. Additionally, participants communicated the challenge and need of having general knowledge about street drugs ie. effects, street slang, appearance, withdrawal symptoms, overdose, interactions with medication and addiction medicine in order to provide safe and competent nursing care.

Phase 2

Methods

In the second phase, an expert panel validated the content identified through the comprehensive systematic review. From the reviewed literature and utilizing the evidence matrix, relevant content items were identified and assigned to pre-defined categories, altogether 13 content areas with a total of 35 specific items (See table 1). Content and categories were then evaluated for relevance and importance by the expert panel.

The five-member international panel of experts who completed the content validation included two psychiatrists, two psychologists and an advanced practice nurse. Experts were selected based on characteristics such as professional expertise on the topic, recognition, scholarship, and responsiveness to requests for participation (Lazenby et al., 2014). The expert panel independently evaluated for relevance and importance of the content using a tool specifically designed for this project. Relevance was rated as yes or no, while importance was rated using four options (very, moderately, somewhat or not important).

Data Analysis

The scoring system and decision criteria used were based on 78% or 0.78 agreement

between affirmative responses with individual items/elements. The total score was computed by averaging results across items, with a decision based on achieving 90% or 0.90 agreement (Polit, Beck & Owen, 2009). It was intended that a second round of validation would have been completed if new content was generated or there was significant disagreement between responses. However, no new content or disagreement arose during the validation period.

Results

Expert Panel Validation

After completing the extensive literature analysis, 13 content areas and 35 items were identified to be included in the tool for validation. Of the 35 content items, 30 were rated as relevant by all five experts, and the remaining six content items were rated as relevant by four of the five experts. The six content areas not given 100% validation by all five experts were: attitudes and biases of providers/nurses; close monitoring to identify craving, withdrawal and opportunity to engage; 12 steps programs; knowledge and management of patient's craving; knowledge of street drugs (color, texture, street names, street price); harm reduction strategies eg. needle exchange and naloxone take home kit.

All thirteen content areas were validated for importance. All content items were either deemed as "moderately important" or "very important" by each of the five experts. However, on certain items such as "attitudes and biases of nurses/provider", there was variation in the level of importance the experts rated the item. On this same item, one expert did not rate this content item. See Table 2 for summary of the expert panels' ratings of content identified from the literature.

On the whole, completion of the evaluations was done well as there were only 3 instances where an expert did not rate an item. No new content was suggested by the expert panel.

Qualitative data collected from experts suggested the tool was comprehensive. Other comments on individual items gave ideas of how the material should be presented or where to find resources which could inform how the material is presented. As there was not substantive disagreement over validated content, there was no need for a second review by the expert panel.

TABLE 1. Summary of Content Identified from Literature

Background to Dual Diagnosis Care

- Prevalence
- Etiology
- Treatment modalities
- Current evidence on dual diagnosis care

Ethos of Care in Acute Psychiatric Inpatient Settings

- Assessments
- Stabilization of psychiatric presentation
- Linking/ connecting patients to community mental health teams and other specialized care teams.

Provider/ Practitioner/ Clinician

- Attitudes and biases of providers/nurses

Patient and Family-Centered Care

- Principles of patient and family-centered care in dual diagnosis inpatient care.

Trauma Informed Care

- Principles of trauma informed care as it relates to dual diagnosis inpatient care.

Integrated Dual Diagnosis Care

- Principles of integrated dual diagnosis care
- Effective interdisciplinary collaborative team care
- Case management
- Close monitoring to identify craving, withdrawal and opportunity to engage.
- Rehabilitation

- Knowledge of pharmacological interventions
- Housing – Advocacy for appropriate housing or direct patient to housing resources.

Substance Use Treatment/ Interventions

- Alcohol Anonymous (AA), Narcotics Anonymous (NA)
- 12 Steps
- Individual therapy

Harm Reduction Interventions (HRI)

- Theory and evidence supporting HRI
- Harm reduction strategies eg. Needle exchange and Naloxone take home kit.

Motivational Interviewing (MI) Strategies for Dual Diagnosis

- MI strategies/skills used in dual diagnosis care in acute psychiatric settings ie. Brief MI
- Stages of Change Model

Psychosocial Interventions

- Principles of psychosocial interventions for dual diagnosis acute psychiatric care

Cognitive Behavioral Therapy (CBT)

- CBT skills for dual diagnosis care

Addictions Medicine

- Knowledge and management of withdrawal.
- Knowledge of interactions between street drugs and prescribed medications.
- Knowledge and management of patient's craving.
- Knowledge of street drugs (color, texture, street names, street price)
- Knowledge of the symptoms and management of intoxication.
- Identification and management of symptoms of substance overdose.
- Relapse Prevention

Psychoeducation

- Principles of psychoeducation

TABLE 2. Relevance and Importance Ratings of Items by Expert Panel

Dual Diagnosis Items/Elements	Relevance %(n)^	Not or Somewhat Importance %(n) *	Moderately Importance %(n)	Very Importance %(n)
Background to Dual Diagnosis care				
- Prevalence	100(5)	-	60(3)	40(2)
- Etiology	100(5)	-	100(5)	-
- Treatment modalities	100(5)	-	-	100(5)
- Current evidence on dual diagnosis care	100(5)		40(2)	60(3)
Ethos of care in Acute Psychiatric Inpatient Settings				
- Assessments	100(5)	-	20(1)	80(4)
- Stabilization of psychiatric presentation	100(5)	-	40(2)	60(3)
- Linking/ connecting patients to community mental health teams and other specialized care teams	100(5)	-	20(1)	80(4)
Provider/ Practitioner/ Clinician				
- Attitudes and biases of providers/nurses	80(4)	-	50(2)	(2)
Patient and Family-Centered Care				
- Principles of patient and family-centered care in dual diagnosis inpatient care	100(5)	-	20(1)	80(4)
Trauma Informed Care				
- Principles of trauma informed care as it relates to dual diagnosis inpatient care	100(5)	-	60(3)	40(2)
Integrated Dual Diagnosis Care				
- Principles of integrated dual diagnosis care	100(5)	-	20(1)	80(4)
- Effective interdisciplinary collaborative team care	100(5)	-	80(4)	20(1)
- Case management	100(5)	-	20(1)	80(4)
- Close monitoring to identify craving, withdrawal and opportunity to engage	80(4)	-	60(3)	40(2)
- Rehabilitation	100(5)	-	40(2)	60(3)
- Knowledge of pharmacological interventions	100(5)	-	40(2)	60(3)

Dual Diagnosis Items/Elements	**Relevance %(n)^**	**Not or Somewhat Importance %(n) ***	**Moderately Importance %(n)**	**Very Importance %(n)**
- Housing – Advocacy for appropriate housing or direct patient to housing resources	100(5)	-	40(2)	60(3)
Substance Use Treatment/ Interventions				
- Alcohol Anonymous (AA), Narcotics Anonymous (NA)	100(5)	-	60(3)	40(2)
- 12 Steps	80(4)	-	100(5)	-
- Individual therapy	100(5)	-	60(3)	40(2)
Harm Reduction Interventions (HRI)				
- Theory and evidence supporting HRI	100(5)	-	20(1)	80(4)
- Harm reduction strategies eg. Needle exchange and Naloxone take home kit	80(4)	-	40(2)	60(3)
Motivational Interviewing (MI) strategies for Dual Diagnosis				
- MI strategies/skills used in dual diagnosis care in acute psychiatric settings	100(5)	-	20(1)	80(4)
- Brief MI	100(5)	-	60(3)	40(2)
- Stages of change Model	100(5)	-	60(3)	40(2)
Psychosocial interventions				
- Principles of psychosocial interventions for dual diagnosis acute psychiatric care	100(5)	-	20(1)	80(4)
Cognitive Behavioral Therapy (CBT)				
- CBT skills for dual diagnosis care	100(5)	-	20(1)	80(4)
Addictions Medicine				
- Knowledge and management of withdrawal	100(5)	-	40(2)	60(3)
- Knowledge of interactions between street drugs and prescribed medications	100(5)	-	20(1)	80(4)
- Knowledge and management of patient's craving	80(4)	-	40(2)	60(3)
- Knowledge of street drugs (color, texture, street names, street price)	80(4)	-	60(3)	40(2)

Dual Diagnosis Items/Elements	**Relevance %(n)^**	**Not or Somewhat Importance %(n) ***	**Moderately Importance %(n)**	**Very Importance %(n)**
- Knowledge of the symptoms and management of intoxication	100(5)	-	40(2)	60(3)
- Identification and management of symptoms of substance overdose	100(5)	-	20(1)	80(4)
- Relapse Prevention	100(5)	-	-	100(5)
Principles of Psychoeducation	100(5)	-	20(1)	80(4)

* Not or Somewhat Important columns were combined as they did not receive any response.

^ % (and number) of experts who response was affirmative "yes" to relevance

Discussion

The purpose of this project was to develop and validate content for an educational module which will equip acute care nurses with the skills, knowledge and competencies to deliver evidenced-base dual diagnosis care. Our findings demonstrate how current evidence on dual diagnosis care in acute psychiatric care settings could be systematically collated and integrated into a 13 content and 35 item educational module which could benefit nurses.

From the comprehensive literature review, we observed there has not been a published recent systematic review of dual diagnosis care competencies for practitioners delivering care in acute psychiatric settings. The few studies and reviews of dual diagnosis care available are often not focused on acute psychiatric settings. Another observation was that most studies on dual diagnosis care emphasize individual treatment modalities and they are often of low quality (Drake et al., 2008; Hunt et al., 2013; McClean et al., 2014; NICE, 2016; Turning Point, 2007).

Comparing this project to other comprehensive reviews which have analyzed evidence for dual diagnosis, our project integrates the most recent knowledge and skills required in dual diagnosis care delivery. It focuses on acute psychiatric care settings which historically have been overlooked. We also noticed that the expert panel had an overwhelming agreement response for relevance of content identified from the comprehensive literature review. Similarly, the expert panel also agreed on the importance of the content, however there was some variance in their rated degree of importance on selected items. Possible reasons for the variance in validation results by experts could be: the different clinical practice roles played by experts, each individual expert's differing experiences, knowledge and personal beliefs and a paucity of quality research projects on the subject which informs decision making of experts. Also, experts could have had an expectation that they were required to discriminate level of importance between items (to help

prioritize), rather than just judging everything as very important. Despite these potential explanations, reasons for the variance cannot be easily deduced from the experts' ratings and comments.

Limitations

We recognize the sample size of nurses who participated in the survey and the number of experts used were small and therefore findings may not be generalizable. Also, this project focused on a single inner city hospital (although some nurses worked in and had experiences working with other health facilities) limiting its generalizability.

Recommendations for future projects

From this project, future efforts may consider recruiting nurses from other acute psychiatric settings. Nurses could be recruited from inner city hospitals, urban areas, rural areas, or from other geographical locations. Other opportunities to be considered include increasing the number of expert validators. Exploration to ascertain the level of knowledge gained and skills acquired from educational module over a stipulated time period will inform how content should be developed and taught. The use of standardized tools to measure knowledge, skills and competence gained or improved could be explored in future initiatives. Also, since most acute psychiatric care settings utilize integrated interdisciplinary teams, it is imperative that future projects consider developing educational content that considers all role(s) and the participation of allied health professionals.

Clinical Implication

This project demonstrates that increasing nurses' knowledge and skills in dual diagnosis care would not only help meet their learning needs and mitigate care delivery challenges, but also has the potential to improve patient outcomes and experiences. It may also help increase the confidence of nurses, decrease their reported frustrations, and prevent staff burn-out in those providing acute inpatient dual diagnosis care. This project also creates a template that could be modified to target knowledge and skills development of allied healthcare professionals delivering care to dual diagnosis patients in acute settings. Additionally, this project could be used to develop nursing curriculum content for psychiatric nursing students and post registration nurses working in acute psychiatric care. Findings from this project could also be used to inform resource allocation towards staff development opportunities. Knowledge gained from translating research studies to benefit point-of-care nurses could also inform future knowledge translation projects. All of these implications are especially important as dual diagnosis patients face poor clinical outcomes and increased risk in many areas.

Conclusion

Based on the review of the literature, it is clear that there is an overwhelming need for nurses to be equipped with evidenced based knowledge, skills and competencies to deliver dual diagnosis care in acute psychiatric settings. Nurses are passionate about delivering care with the best outcomes despite their reported challenges. The identified learning needs and challenges in care delivery could be mitigated through the use of an educational module as suggested by this project.

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