

## DEVELOPING MENTAL HEALTH NURSING STUDENTS' CLINICAL COMPETENCY MODEL

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### ABSTRACT

**Introduction:** Mental health nursing's clinical competency is an important subject in theoretical and practical nursing education which is influenced by many factors. It seems that using a distinct and appropriate model to achieve mental health nursing's clinical competency not only determination of attainment to educational goals, but also provide evaluation, feedback and performance modification. Therefore, a basic research about mental health nursing students' clinical competency model is necessary.

**Subjects and methods:** This research was done through descriptive exploratory with a mixed method approach. At first, qualitative stage, semi structured interviews with 16 students,

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faculty members, head nurses and nurses who worked at psychiatric wards, is done. At the second stage," Mental Health Nursing Students' Clinical Competency Model" was designed through an exploratory study based on Walker and Avant's theory synthesis method. To assess the validity of the model, Delphi technique was conducted in two rounds in which participants were 20 faculty experts with a five point Likert scale questionnaire.

**Findings:** Analysis of qualitative stage included four themes:" Get ready and becoming familiar","Confronting","Involving" and" Being competent" and 13 categories .At second stage, mental health nursing's clinical competency model with four dimensions was designed. Delphi technique showedthat the model had an appropriate validity.

**Conclusion:** In this research "Mental Health Nursing Students' Clinical Competency Model" was designed .It seems can help to plan proper curriculum for the mental health subject matter in nursing.

**Key words:** Clinical competency, Mentalhealth nursing student, Clinical competency model, Nursing education.

### **Background:**

The purpose of nursing education is transferring knowledge to students and helping them in achieving insight and skills required for nursing care (Sabeti et al, 2011). Education has an important role in the development of nurses' professional abilities; and it provides opportunities to enhance knowledge, problem solving abilities, and critical thinking (Dias et al, 2010).

One the most important prophesies of universities and advance educational centers in medical fields, is empowerment of students in required skills and preparing them for offering health care services to all people in the society (Amini et al, 2005; Mohammadi&Hosseini, 2010, Gidman et al, 2011). Nursing knowledge and competency is based on learned science and education which is provided in their education duration (NajafiKalyaniet al,2010). Whoseknowledge and skills

are valuable that after graduation and in real working environment, have direct impact on student's professional future (Shayan,2010; Mojab et al, 2011).

Evaluation of training courses of nursing student's clinical education, indicate a gap in student's achieved capabilities and ideal situation, and in the end of educational course they did not gain the required skills and capabilities (ParsaYekta et al, 2006). Furthermore, researches have done on novice nurses implies these nurses in transferring from the roll of student to an active professional roll, experience some level of lack of preparation. Stressful experiences of newnurses, often were related to lack of required skills in nursing practice and failure to integration between nursing education and current situation in professional environment (Heshmatinabavi&vanki, 2009). One study indicated approximately 49percent of the newly licensed registered nurses reported involvement in errors. Those nurses were unable to provide minimum standards of practice and professional competence (Klein &Fowles, 2009). Some studies show correlation between clinical competency and the rate of practical deployment of clinical skills; the nurses have higher clinical competence, the possibility of utilizing their clinical skills in practical environment is more (Bahreini et al, 2008). All nurses should have the proper practical skills and high ability in critical thinking, clinical decision-making, clinical judgment, moral reasoning and ineffective communication with patients (Borhani et al, 2009).

Competency is a complicated and ambiguous phenomenon, it is one of the most controversial subjects in the health care system in different nursing areas such as educational, practice and nursing management (Bagherinesami et al, 2008). Competency have different learning areas including knowledge, skills and attitudes. According to this description, people should be able to do their specific rolls or set of tasks in adequate level, degree and quality (ParsaYekta et al, 2006). Australian Nursing and Midwifery Council (2005), defines competency as a combination of skills, knowledge, attitudes, values and abilities that verifies effective and high performance in an occupational or professional areas (Levett-Jons et al, 2011; Hanley & Higgins, 2005).

In this regard, nursing teachers are trying to design an educational program based on competency. These competencies are established on the basis of scientific principles, but, development of them requires activities that the most significant of them is application of theoretical content (education) in real life situation (Delaney et al, 2010). Competency-based

training program, focused on set of skills which every student should master it (LeCuyer et al,2009; Applin et al, 2011).

Mental health nursing for some reasons such as lack of clarity psychiatric nurse's roles and lack of standardization in mental health care, faces many challenges. Nurses Association of America, defines psychiatric nurses (mental health nursing) as diagnosis and treatment of human's reactions to potential and actual mental health problems. Psychiatric nursing profession is significant comprising of aspects of nursing care practice that includes human relationships of individuals and groups and other activities (Mohtashami&Noughani, 2010). A psychiatric nurse is a working nurse who have competency, knowledge, skills and specific abilities in the care of patients with mental health problems and disorders (Boyed, 2012). Nature of mental health nursing as all aspect of care, has undergone profound changes. These changes includes ageing of patients population, increase in cultural varieties, case management, changes in the field of care (for example from hospitals to society), competition of caring patterns, preservation of job opportunities, provision of required tutorial for job development, novice knowledge and Information Technology; ultimately these all influence on clinical practice of psychiatric nursing (Gass et al, 2007; Varcarolis et al, 2006).

Due to the lack of adequacy of mental health content in nursing curricula before employment, some concerns leads to this belief that novice graduate nurses are not adequately prepare for the care of patients with mental disorders. These concerns can have determining effects on the care standards (MacCann et al,2010; Hapell, 2010). In a study of Melnyk et al in Yale University, nearly half of the authorities believenewly graduated nurses have problem in giving holistic consultation specially to the high risk families (2010). There is an increasing concern that psychiatric nurses have not received adequate training in medication management. This problem can be seen even in countries such as England where the right of medication prescriptionto the mental health nurses (Snowden, 2010).

In recent years,Iran has emphasized the need to attention to the issue of nursing practical competency are felt more than ever, due to the increase of knowledge and society's expectation of receipt qualified care, systems of health care delivery inevitably have to increase the effectiveness of their human recourses (Bagherinesami et al, 2007). However many challenges such as lack of clear definition in clinical competency of mental health nursing students, and also

an unclear policy for achieving clinical competency, the lack of valid and reliable tools to evaluate mental health nurse's clinical competencies, students individual differences and their need to learn different level of clinical competency; are always considered. Examples of problems in current educational system are lack of attention to lifelong and active learning, not being ready for professional role playing after graduation in the area of mental health nursing and unreliability in providing safe and qualified care to patients in psychiatric centers. These problems show the need of a valid model for integration mental health nursing education and ultimately achieving required competency to work in this field. To achieve clinical competency requires a specified framework which contains all important aspects of achieving competency throughout student's course. The existence of a model for achieving clinical competency in mental health nursing students, not only to determine of learning objectives, but also it makes it possible to evaluate and feedback and also the modification of clinical practice.

Considering the findings in different literatures, no research have been done in Iran in articulating of clinical competency phenomena and of how achieving it by mental health nursing students. Whereas clinical competency is related to the cultural structure and specific circumstances of each community and on the other hand, the ultimate goal of quantitative and qualitative researches are greater understanding of the world and the truth about how things are, helps to create more meaningful and comprehensive image of issues. Therefore, the researchers decided to articulate the phenomena of clinical competency and how to achieve it in nursing students at psychiatric wards in universities of medical science of Tehran, with providing model.

### **Subjects and methods**

This study was a mixed method, sequential, exploratory study. Mixed study, conducted with combination of number of methods (LoBiondo-wood & Hober, 2010). To achieve profound findings from clinical competency of nursing students of chosen universities of medical science in Tehran, first, with a qualitative approach comments and perspective of participants were gathered. The participants included psychiatric nursing teachers with at least 2 years of Mental Health apprenticeships (for the understanding the apprenticeships environment and the experience and variation in the selection of participant experience were complied), 4<sup>th</sup> year nursing students, postgraduate psychiatric nursing students, head nurses and nursing staff who

had at least 2 years of working experience in psychiatric wards of medical universities of Tehran city. In this stage of study considering the quantitative analysis approach, content analysis was used.

Semi-structured interview and focus group interview were conducted. In the Semi-structured interview, questions were formed as guide format or instruction. In this phase of study, in sum four psychiatric nursing teachers, five undergraduate students, two postgraduate psychiatric nursing students, three head nurses and two staff nurses from psychiatric wards and two focused group interview with undergraduate nursing students (9 female) and (5 male and 3 female) were participated.

In this study, conventional content analysis approach was used. Thus first unit of meaning in the format of sentences were extracted from interview texts and primary codes or open codes were extracted. For recoding, every interview texts were read for number of times and main sentences were extracted and recorded as codes. Afterward, related codes were identified and were sub categories due to their similarity. Subcategories were assortment to main categories and ultimately themes were emerged. The process of analysis was repeated with every interview and codes and categories were reclaimed. For precision and accuracy of qualitative data four criterion such as credibility, conformability, dependability and transferability were used. The data analysis led to emerging of four main themes: "Get ready and becoming familiar," "Confronting," "Involving," and "Being competent"

In the second phase of the study, exploratory design was conducted for model designing. This phase contained two stages, model compiling and determining the practical and scientific acceptability. In this section, major research regarding global models of practical competency and psychiatric nursing students' clinical competency, was done. Henceforth, models of selected countries based on their rate of development, geographic distribution and availability of their information were studied. Furthermore based on the results of first phase of the study "Mental Health Nursing Students' Clinical Competency Model", was designed. For model designing, prescription pattern was used. Since in qualitative studies, basic concepts in relation with nursing student's clinical competency had been determined, to develop them in to a prescribe model with the aim and favorable outcomes, theory synthesis was used. The aim of theory synthesis is designing a set of related ideas and evidences. In this approach, researcher

puts together the available data of a phenomenon and gathered these statements and concepts in to a network or a whole (theory). Theory synthesis has three stages (Walker & Avant, 2005): 1. Determination of main concepts, 2. Identification of related factors and relations and 3. Build a comprehensive view (presentation) (Khosravi, 2011).

To determine the rate of scientific and practical acceptability of the proposed model, Delphi approach was used. The goal of this approach is achieving consensus among experts regards the trends and future delineation of a subject. In this study, Delphi approach was conducted in two phases and with the participation of 20 experts who were selected due to the aim of the study. Then the model's scientific and practical acceptability were designated based on these experts. These individuals were selected due to their knowledge and experience in related field of study.

After model designing, a questionnaire regards to every parts of the model were provided and for every question, five options "very much" to "very little" was considered. Hence each of the experts was asked to give their opinion about different parts of the model. After 20-30 days comments were collected. The model was revised and reformed afterwards with the same questionnaire it was sent back to the same individuals for re-feedback. After 15-20 days, comments were collected.

### Findings:

To determine the dimensions of "Mental Health Nursing Students' Clinical Competency Model" the findings of qualitative phase of the study, reviews of international studies and applied different models were used. In the first phase, based on the qualitative study's findings regarding the explanation of mental health nursing student's clinical competency, four main themes emerged: orientation and preparation, confrontation, involvement and achieving clinical competency. These themes illuminates various factors and challenges facing with gaining clinical competency for mental health nursing students. In this phase of study numbers of influencing factors on clinical competency were introduced. Clinical competency-based planning, teachers and students abilities, structure and the content of clinical curricula, making students in charge and a member of patient care team, and achieving competency in emotional/ morale/ cultural domains, professional values and specialized competency, were some highlighted issues.

In this model, clinical competency will be achieved through a systematic and scientific process and will continuously be developed. Model dimensions were considered in four domains of orientation and preparation, confrontation, involvement and achieving clinical competency(Figure 1.).

1. Get ready and becoming familiar includes competency based curriculum, effective learning strategies and attain coreknowledge(mental health promotion ,evidence-based education ,IT,...) and values and attitudes for mental health practice.
2. Confronting which has clinical education context and process of attain clinical competency in setting.
3. Involving which in this stage, after gaining theoretical knowledge and clinical trainings, by being in a clinical environment, students directly confront with psychiatric patients. Components of this domain include:

Assigning responsibilities to the students, taking students as a member of professional team, creativity and innovation in practice ,utilize knowledge and attain effective experience.

4. Being competent, in the final stage of the model, students will success to achieve general and specialized competency in mental health nursing and are able to do as their professional roles in the field of mental health nursing. This contains: emotional maturity, ethics competency, commitment to professional values and special competency.

In all domains of achieving clinical competency,cognitive/emotional abilities and specific skills of teachers and student will have a certain impact on quality of clinical competency achievement. It should be considered that while transition from one stage to next one, students should be evaluated as a feedback process to ensure the achievement of required competencies and skills for the next stage.

In the second phase of this study, qualitative study's findings as well as literature review were used for processing and manufacturing of model's main sectors such as philosophy, scientific bases, aims, domains and executive steps. Such a manner that philosophy as the basis of the model contains of finding of qualitative stage of the study (related to development of concept and related factors of achieving mental health nursing students clinical competency), COPA's model of assessment of practical outcomes of competency, America Association of Colleges of



Nursing's competency, Safe and Qualities of Nursing Education Competency, Framework of Practical Competency, the Model of Process of Achieving Clinical Competency, Theory of Systems and Learner –Centered Model and the aims of the model were documented.

To determine the practical and scientific acceptability of "Mental Health Nursing Students' Clinical Competency Model" with the participation of 20 experts from nursing and midwifery collages form around the country, Delphi's approach were used in two stages. Most of the expert participants were female (65%) with the PhD education (75%). Most of the participants in Delphi's study had the collage ranking of assistant professor (40%). Youngest participant was 30 years old and the eldest one was 56years old. Also, maximum educational experience and over all practical experience of the participants were 32 years and 34 years.

In the first stage of Delphi according to written comments of the experts required changes were implied furthermore those question which had not gain the sufficient score, were considered in the modification of the model thus the model's weakness were resolved as much as possible. In the second stage of Delphi, responses received from the questionnaires were analyzed with descriptive statistics (Std. Deviation, mean...). With consideration of expert's comments, the model was finalized. Findings indicated that mean score of every question were 3 or more (1= very low and 5= very high), most of the participants, rated the scientific and practical acceptability of the questions "very high" and "high"(in sum 90.25%). In addition to deliberate the mean score of every question based on intended questions from very low to very high, mean score and Std. Deviation were calculated.

### **Conclusion:**

This study was conducted with the aim of designing "Mental Health Nursing Students' Clinical Competency Model". This model is a graphical or symbolic view of phenomena which help giving objectivity and demonstrate a prospect related to the nature or the practice of that phenomenon (Power &Knapp, 2006). Polit& Beck mentioned model is the traced of concepts or research variables with theoretical connection between them with the help of symbols (2010). Conceptual models are forgedfrom abstract and general ideas (concepts) and assumptions which their connections are distinctive (Rafiei, 2008). Dimensions and executive steps of the model

include of Get ready and Becoming Familiar, Confronting, Involving and Being Competent are as follows:

1. Dimension of get ready and becoming familiar that include competency based curriculum, effective learning strategies and attain core knowledge (mental health promotion, evidence-based education, IT, ...) and values and attitudes for mental health practice. Constituent parts of this dimension, makes the implementation of this model possible. In this dimension, models such as COPA (Klein and Fowles, 2009; Ryan, 2011 and Lenburg, 2011), American Association of Colleges of Nursing's competencies (Hickley et al, 2010; and Mailloux, 2011) and Competency Model of American Association of Colleges of Nursing (2008), generally and Sainsbury Center for Mental Health for mental health nurses (2001), were considered. Meanwhile, in this study required areas for achieving clinical competency specially for the mental health nursing students, in the stage of orientation and preparation were designed in this model.

2. Afterward encounter which includes structure and content of the clinical education. The constituent parts of this domain provides the appropriate situation for the nursing students to confront and work with patients with psychiatric disorders. In this part human and organizational resources, possibility of the availability of appropriate training, entity of training facilities and equipment in clinical environment, prerequisites for entering the psychiatric wards and confronting the patients, benefit of content and duration of apprenticeship and methods of clinical training are considered. Models such as COPA provides a holistic process for developing competency in nursing clinical practice and expects the learners are actively involved in learning (Klein and Fowles, 2009), had been considered in this model. According to the qualitative part findings most of the participants mentioned the structure and content of the clinical training as one of the problems facing the achievement of clinical competency in nursing students; this part of the model tries to emphasize this issue.

3. Next, involving which includes assigning responsibilities to the students, taking students as a member of professional team, creativity and innovation in practice, utilize knowledge and attain effective experience. In Vanaki and Memarian's model (2009), critical thinking, gaining efficient practical experience and application of knowledge were considered.

Furthermore, in this dimension, concepts of Learner-Centered Model (Seif, 2011; Suntrak, 2007) which mentioned the indirect learning and learners responsibility in understanding and comprehension; had been sought. This model tries to emphasis the roll of students in his/her training.

4. Being competent contains emotional maturity, ethics competency, commitment to professional values and special competency. These, in this domain were mentioned generally in models such as America Association of Colleges of Nursing's model of competency ((Hickley et al, 2010; and Mailloux , 2011), Practical Work Framework of Competency (Sainsbury Center for Mental Health, 2001), Model of Safe and Qualified Training Competency for Nurses (Armstrong et al, 2009), Massachusetts's Model of Competency for Future Nursing (Sroczyński et al, 2011) and America Association of Colleges of Nursing's model of competency (2008). According to qualitative findings of the study, likely most of the postgraduate nursing students did not have clinical competency required for their professional roles in the field of mental health nursing, therefore designed model tries to emphasis the achievement of competency prior to the graduation.

Also learner's abilities in Learner-Centered Model was considered, but regards teacher's abilities, it had not been addressed clearly in any specific model. Regarding the study findings, it was determined that cognitive/emotional abilities and specific skills of teachers and student for attainment of clinical competency have influenced achievement of competency which was considered in this model.

Regarding continues and mutual evaluation which can be seen in this model, only it was mentioned briefly and as performance evaluation in COPA's model (Lenburg, 1999 and 2009). Lenburg's model explains how the clinical course of training can be evaluated through objective criteria and resource –based such as multiple-choice tests used for the theoretical part of the nursing curricula. In this method clinical performance examination will be considered as more objective and more compatible process to identified learning outcomes which every students achieved (Klein and Fowles, 2009).

To determine the scientific and practical acceptability of the proposed model, Delphi's method was used in two stages with the participation of 20 experts who were chosen based on the aim of

the study. Findings shows most of the participants, model's scientific and practical acceptability in various parts of it ranked "very high" and "high. The overall result of the Delphi method regards the model of clinical competency achievement of mental health nursing shows high rate of appropriate agreement as well as high rate of agreement about each question. This method is a way to obtain professionals comments about studied subject which they were questioned in several courses (Polit and Beck, 2010).

### **Final Conclusions:**

In this study, "Mental Health Nursing Students' Clinical Competency Model" was designed with high acceptability. The implementation of this model and appropriate planning for achievement of mental health nursing specialized competency can ensure the achievement of clinical competency by nursing students.

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**Figure1.Mental Health Nursing Students' Clinical Competency Model**

