Designing and accreditation of evidence-based nursing care instructions in psychiatric emergencies

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A B S T R A C T

**Aims:** Evidence-based care instructions are one of the effective tools for appropriate decision-making and enhancing the quality of taking care of the patients with mental disorders. The aim of this study has been determined:”Designing and Accreditation of evidence-based nursing care instructions in psychiatric emergencies”

**Methods:** The study had been done with “developmental research” method with the evidence-based approach in Mental Units of Baqiyatallah hospital in 2013. Nursing care instructions had been designed according to Stetler model and with the evidence-based approach for patients who were exposed to the high risk of suicide & violence.

For assessing content validity of the instructions with Delfi method, opinions of ten faculty members of Baqiyatallah, Tehran, Shahid Beheshti, Army and Sabzevar Universities had been considered in three stages. Applicability of the instructions had been assessed by focused group discussion method with 10 experienced experts of Mental Units.

**Results:** In addition to reviewing nursing books, 100 articles from 2006-2013 had been studied, and with considering criteria of choosing evidences, 40 articles had been chosen as credible evidences. At the end, 7 evidenced -based nursing care instructions had been designed for the patients with psychiatric Emergencies.

**Conclusions:** With designing Evidence-based nursing care instructions in psychiatric emergencies, some needs of clinical nurses in confronting these patients were removed. So it is recommend performing such instructions and to design and perform care instructions in other units in the next studies.

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1. **Introduction**

Medical emergencies are sudden and unexpected situations that are along with breakdown in thoughts, emotions, mood and behavioral disorders and they need attention and immediate treatment. The most important medical emergencies include; suicide and violence [1]. Suicide is counted as one of the major health problems in the world. One
Million suicides happen in the world annually. According to the report of world health organization, a suicide attempt happens every 3 seconds or 10-20 million suicide attempt happen annually that its one million leads to complete suicide [3]. Mental patients around the world have the highest suicide statistics. The cost of their hospitalization and unemployment is respectively 9127 and 11,146 dollars [4]. Organization for disease control and prevention declared suicide statistic in the people with age higher than 65 years old, 14.7 from every 100000 people that men had 85% of the suicide [5].

Another emergency is patients’ violence, which is very common, but most of the care givers did not have a comprehensive training in treating with them, so the level of their violence against them is still high [6].

In a way that from every 5 psychiatric nurses, one of them experiences physical attack and about 40% experience physical injury [7]. Annual violence statistic against psychology unit staff is 62.8 from every 1000 people while this statistic in other units is 16.2 and it is 12.6 in other jobs [8].

Since nurses have high vital role in recognizing people predisposed to violence, standard nursing care provides causes of decrease of psychiatric emergencies in these patients. In most of the countries, gradation and accreditation of hospitals are done according to the quality of these nursing cares [9].

So for evaluation, improvement of nurse’s function and care quality, we have to use international and scientific standards [10]. Regarding this, using the best existing evidences is important for taking care of the patient, which is called evidence-based function [11]. Regarding this, nurses should make themselves along with the latest developments and keep their information up to date [12]. And in order to remove the present difference in understanding and performing instructions, there is the need of standardized interventions, which had been achieved through research [13].

That about 60% of them takes place in Asia [2].

The medical term of evidence-based is stated for the first time in 1992, then it has found its place, and it has been entered into the most areas of health care gradually, also in the nursing after formation of national institute of nursing researches, uses of research in nursing care has been increased sharply [14].

Gibs defined evidence-based nursing as putting the patient’s benefit in priority through clinical decision taking by using the best evidences in taking care of the patient [15]. Strohschein et al. stated that clinical instructions provide promotion and improvement of nursing care quality, it also causes increase of nurses’ awareness and it provides a way for using researches in bedside [16].

Regarding this Tello et al. (2013) considered performing evidence-based instructions as the cause of improving care quality and decreasing anxiety in patients with anxiety disorders [17]. Assessing and recognizing patients in mental unit due to critical situation of patient and lack of cooperation in providing information and examination is very hard, considering limitation of time in emergencies and the main role of the nurses as the main core of care in increasing patients’ satisfaction, design and performing of evidence-based instructions seem necessary in order to explain executive processes of clinical care and to prevent non-standard clinical works.

Regarding this, studies showed that despite health ministry strategy based on performing evidence-based nursing care and emphasizing this discourse in nursing colleges, needed attention is not done about nursing and evidence-based care function in bedside and in mental units by nursing managers, and care instructions are not designed scientifically and systematically based on evidence-based nursing in a way that less than 50% of instructions in the country are in consistent with the international standards [18]. Also there is no clear program for updating care instructions. By considering the above notes and for removing part of mental unit clinical nurses’ need and to evidence-based instructions, this study had been
done with the aim of “designing instructions of evidence-based nursing care in psychiatric emergencies”.

2. Methods
This study had been done with developmental method with the approach of evidence-based function and by using Stetler model. Developmental research is; designing, developing and assessing a process, design, production or program [19], Amel Ebrahim et al. (2013) for accreditation of evidence-based instructions in patients with tuberculosis started to develop instructions of nursing care of these patients. Type of the research is called “developmental approach” and the processes of doing the work is as bellow: instructions are designed after comprehensive studies of new sources and articles and nurses’ need according to the aim group and they had been corrected through Delfi method during some sessions in order to have a collection of experts’ opinions [20]. The study population included; published works in the form of Persian and English scientific books and articles related to the subject and also ten faculty members participating in the study and all the nurses working in mental units (male and female) of Baqiyatallah hospital in 2013 and also male and female mental unit of Baqiyatallah hospital was the research environment. Stetler model includes five stages of preparation, accreditation, comparison study, application, performance and evaluation.

Preparation stage: includes collecting the present instructions in the unit, present nursing diagnosis in reference books and articles and nurses’ opinions. About the present instructions, unfortunately, there is no specific instruction in mental units of Baqiyatallah hospital. In order to collect the present diagnoses in reference books and articles, designing clinical questions method (PICO, population or problem, intervention, compare, outcome) had been used. Studying the text included; reviewing all the related articles between 2006 to 2013 with priority order based on evidence-based pyramid from systematic reviewing studies, meta-analysis, clinical trial tests, cohort, evidence case, case report, laboratory studies, experts and pundits’ opinion and web sites including internal and external such as; Proquest. Pubmed, Google scholar, Elsevier, SID, Magiran with care instructions key words, evidence-based nursing, psychiatric emergencies, violence, suicide, protocol and etc. that their full text is accessible. Considering the inclusion criteria and purposeful sampling, 40 articles chosen from 100 studied articles were the sample size of this study.

Accreditation: in this stage, new instructions for the patients with nursing diagnosis of violence and suicide had been designed based on evidence-based method and in the form of nursing process. In order to determine content validity of the instructions, specialized faculty members’ opinions of Baqiyatallah, Army, Tehran, Shahid Beheshti and Sabzevar universities with Delfi method, in three stages of survey and with agreement coefficient of higher than 90% had been used. Actually content validation had been done by experts.

The stage of comparison study includes determining applicability of instructions and studying their benefits and dangers. In this stage, there were sessions of focused group discussion regarding operationalization of these instructions. It should be mentioned that initially designed instructions had been given to 10 nurses who were responsible for providing direct and indirect care in mental unit in order to study them. Then during two 4-hour sessions, all the interventions were discussed and exchange of views had been done for being implementation, regarding this by taking permission from the participants and by using MP4, voice of the attendance in the meetings had been recorded and final conclusion had been formed.

In the use stage: by using nurses’ opinion, final instructions had been performed by determining operational codes.
404. Risk For Suicide (NANDA)

Nursing diagnosis

Risk of suicide related to
Depression, anxiety, Feeling of guilt, aggression, anger, feeling of worthlessness, disappointment, feeling of ostracism from the family or important persons, the euphoria after major depression

Evaluation criteria/signs

Having suicide design, thoughts and equipment, doing preparation of suicide (writing will, forgiving price up properties, direct or indirect expressions that shows tendency to suicide, surface emotion, lack of enjoy, sense of absurdity, failure and guilty, lack of ability in doing usual roles, experience of trying for harming himself/herself during major depression, avoid of taking drugs and resistance to treatment, often tearful appearance, restless and sullen, expressing lack of confidence, feeling abundant by an important person in life, disappointment, misinterpretation of facts, expressing direct or indirect sentences that show the tendency of committing suicide, having the experience of previous suicide, having a design or plan for suicide, leaving work, writing a wish, forgiving his/her assets to others, having hallucination and delusions that can lead the patient’s to suicide, expressing disappointing sentences.

Nursing interventions

1. Assessing patient’s suicide thoughts by asking direct question about suicide “have you ever thought to end your life” (1,5, 22-30)
2. Examining the patient’s mouth when he/she is taking medicine (1,3, 24, 27, 29)
3. Investigating behaviors that happen before suicide (threats, movements, forgiving assets, setting will, writing note of suicide, daydreaming of obsessions about death, self-mutilation (5,22,23, 25-27, 31).
4. Providing a safety environment for the patient, patients should be away from dangerous items, (sharp instruments, strings, belts, ties, glassware) (1, 5, 23-26, 28, 30, 31).
5. Developing a short-term oral commitment with the patient to not harm himself/herself in a special time duration (1,5, 22,24-27,31-33)
6. Taking promise from the patient, in the case of suicide thought to inform unit nurses (2,5,23-28,31,32,34)
7. Recognition of supportive sources of the patient (1,5,23-28,32,35,36)
8. Devoting appropriate and adequate time for physical presence beside the patient (2,22, 25, 27, 32)
9. Irregular and permanent visiting of the patient during day and night and expressing the reason of that (1,5, 22-24, 31)
10. Using physical control methods, to shut in, or giving the patient time to relax as the last time intervention that the patient’s behavior is a threat for harming himself/herself or others (1,23,24)
11. Patient’s room near nursing station (1,23,24,30)
12. Encouraging patient to express his/her emotions and anger (1,3,5,23,25,28,31,32)
13. Teaching coping methods and religious beliefs (reading Quran, praying, walking, listening to the favorite music, having shower, using internet, playing with pets, exercise, having a hobby, reading favorite texts, doing housework etc.) (5,25, 27,28,31)
**409. Risk for Self or other directed violence (NANDA)**

### Nursing diagnosis

Risk of harming himself and others related to
- Defective grief, Suicide thoughts, Hereditary factors, Biochemical changes, Suspicious of others, violence, doubts, delusions and hallucinations, history of violence against others, history of drug abuse, history of anti-social behavior, Deranged judgment

### Evaluation criteria/signs

Body language (contract physical condition, pressing fists and jaws) hyperactivity, walking fast, fast or hard breathing, excitability, aggression, risky behavior, hostility, threats against family members or relatives.

### Nursing interventions

1. Investigating violence signs in the patient (1,32)
2. Investigating causes of violence in the patient (1,7,32)
3. Periodic check of the patient every 15 minutes (3,23,32)
4. To minimize patient’s environmental stimuli (moderate light, less people, less decorations, the presence of less people) (7,23,32)
5. Dangerous objects away from the environment (sharp objects, mirror, glass, belt, tie, flammable material (1,5,22-26,31,32)
6. Changing patient’s violent behavior with physical activity (boxing punching bag, physical exercise) (23,32)
7. Showing a behavior indicating relaxation to patient (7,23,32)
8. Giving sedation as directed by a doctor (22,32)
9. Using shut in methods, at the time of relaxation of physical control, when other interventions were not effective (23,32)
10. Attending to verbal threats or violent statements that is about himself/herself or others (1,5,22,23,25,26,31,32)
11. Giving positive feedback to the patient’s effort in controlling violence toward self or others (23).
12. Developing written commitment with the patient that he/she does not harm himself/herself in a special time duration (1,5,22, 24-26, 31,32)
13. Taking promise from the patient to inform his/her nurse in the case of having suicide thoughts (5,23-26,31,32)
14. Teaching coping skills (controlling anger, problem solving etc.) (39-44).

Performance and evaluation: in this stage, the effect of the changes is evaluated through the mentioned research about the quality of health care institute activities, staff and patients [21].

That in this study because of time limitation, it was not possible and it is recommended for the next studies.
3. Results
People participating in focused group meetings included 10 nurses with the average age of 37±6.5 years old that worked in mental unit of Baqiyatallah hospital.
4 participants were from men’s unit and 6 of them were from women. Also 2 of the nurses had MA. Degree and the average of nurses’ work experience was 12±6.6.
Also three survey stages had been done with Delfi method with participation of ten people of specialized faculty members of Baqiyatallah, Army, Tehran, Shahid Beheshti and Sabzevar Medical Science University.
Three professors had MA. degree and seven of them had specialized PhD degree and the average of educational work experience of faculty members was 15±5.5.
Lack of specialized instructions in mental unit for the patients exposed to the risk of violence and suicide was the first finding of this study that finally results of this study lead to design of 7 specialized instructions in the framework of nursing process for mental patients, suffering from psychiatric emergencies. The designed instructions had two parts:
3-1. Identity of instructions: including the aim of designing instructions, nursing diagnosis, aim group, used methods for setting up the instructions, experts who participated in designing instructions, inclusion and exclusion criteria for choosing evidences, rules, used resources, credit date of instructions which is considered until 2019. Specialized nursing diagnoses in psychiatrist emergencies are as following:
- Risk of suicide
- Risk of self or other directed violence
- Social isolation
- Lack of family coping
- Chronic low self esteem
- Impaired in drug regimen
- Deficient knowledge
3-2. Content of designed instructions:
These instructions are designed based on nursing process that included these parts: nursing diagnoses, signs and symptoms and nursing actions.
Since, there is not the possibility of providing all the instructions in this article, just we are sticking out to the most important ones that is suicide and violence (instructions of 4040 and 405) (table 1).

4. Discussion
In this study after developing nursing diagnoses, investigating texts and determining accreditation groups, care instructions had been designed according to evidence-based process in medical emergencies. Based on this Tishler et al. (2012) after collecting nursing diagnoses, holding department of management program and searching in research and academic resources, considering experts’ and advisors’ opinions started to publication and dissemination of care instructions in preventing violence and they could help nurses’ decision taking in taking care of the patients [8].
Also William Nash (2012) had a study with evidence-based method after determining main actions and axes in taking care of the patients with posttraumatic stress disorder problem in mental unit.
They also used articles of 1994 to 2010 with evidence-based key words, instruction, posttraumatic stress disorder, stress, protocol, which were systematic review of studies and clinical trial [45].
Also Phillip Boyce et al. (2006) in a study similar to our study worked with the above method, investigated and collected evidences and the last researches about necessary cares and actions for patients predisposed to violence [46], that the above research approves the researcher’s action in preparation stage.
In all the mentioned evidence-based studies, four components of evidences, patient’s values, clinical skills and available sources had been considered. In the present study, in addition to the mentioned cases, there is special attention to
religious and cultural issues of the patient. Because of this, instructions had been assessed by expert team and clinical nurses.

Stetli et al. (2008) regarding this used experts and clinical nurses’ opinions after designing instructions for suicide prevention for validation of new instructions.

Then the instructions had been performed on the patients with violence problem [31].

Also Jacobson (2008) after developing evidence-based mental interventions in cancer patients did validation of their own instructions by holding meetings with specialists and clinical nurses which finally led to decrease of patients’ anxiety and depression [4].

Also Granello et al. (2010) after designing 25 strategies for decreasing suicide in mental patients validated their instruction by considering patient’s values based on nurses and specialists’ opinions [48].

In the present study 7 instructions had been designed according to the above action.

Also Moradi et al. (2013) in a similar study, designed 22 instructions of evidence-based nursing care for the mechanically ventilated patients, hospitalized in ICU [49].

Regarding this, also Nezamzadeh et al. designed 8 evidence-based care instructions for the patients with diagnosis of pectoral angina who were hospitalized in ICU units [50].

According to what is mentioned as one of the reasons of doing this study, performing nursing instructions at bedside play a basic role in providing cares with high quality.

Regarding this Wethington (2008) in his study, investigated the effect of evidence-based instructions in decreasing mental damages, subsequent of traumatic events in kids and teenagers, results indicated decrease of posttraumatic mental damages after performing instructions [51].

Also Strohschein et al. introduces designing clinical instructions as the cause of promotion and improvement of treatment and a framework for clinical action [16].

It is hoped that providing these instructions in addition to removing clinical need of nurses in mental unit causes decrease of psychiatric emergencies side-effects in patients.

By analyzing findings of the study, reminding some points is necessary; firstly lack of special instructions for taking care of the emergency psychiatric patients approved necessity of doing such study.

Secondly, from this study methodology point of view, choosing evolutionary method and doing its stages are completely scientific and according to several studies, in this study by providing articles and books related to the subject, right of the texts, direct and indirect citation method had been observed.

In order to collect and record the related information, necessary consent had been taken from the participants.

Among problems of this study, it can be pointed to lack of accessibility of some foreign books and sources due to the high cost of them, lack of accessibility to all the specialized sites, coordination with nurses for holding focused group discussion and lack of theoretical and practical background of the subject of the study in Iran and from the other hand, performing and evaluating of these instructions were not possible in this study because of time limitation and it is suggested for the next studies.

5. Conclusions

Currently, using research in nursing cares is away from the appropriate situation and this gap had been proved especially about emergency patients in mental unit due to lack of specialized instructions.

According to the remarkable increase of the number of emergency patients in mental unit, the high cost of care and treatment of these patients, injuries to nurses due to that and according to the studies and feeling of need and interest of the faculty members and nurses of mental unit during meetings and sessions, which had been hold in this study, using such instructions in order to increase care quality, decrease of hospitalization time and patients’ treatment costs are recommended as a standard
reference in providing services to nursing and implementing them in other units.

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