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The Development of a Screening Tool for Identification of Nurses Knowledge about Suicide

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ABSTRACT

Objective— Effective management of patients that attempt suicide, requires appropriate training of nursing staff so as to improve their knowledge and management techniques that will be effective for decreasing injuries to patients as well as staff. The purpose of this manuscript is to report development of a screening tool for psychiatric nurses to assess nurse's knowledge about suicide.

Method— The initial questionnaire was constructed after reviewing previous suicide knowledge scales and clinical skills of psychiatrists and psychologist counselor in Egypt. Forty psychiatric nurses participated in the study by filling Nurses knowledge about suicide questionnaire. The tool was developed using a four phase approach.

Results—Sixty-eight items for nurse's knowledge about suicide were identified, included in the screening tool and divided into eight conceptual areas. While further research is needed to validate the screening tool, the findings provided a useful preliminary starting point for nurses to assess knowledge about suicide

Conclusion—In conclusion, the nurse's knowledge about suicide questionnaire was developed as a measure for screening nurse's knowledge about suicide.

KEYWORDS

Knowledge ,Nurses ,Suicide ,Tool .

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INTRODUCTION

Concern the growing number of deaths from suicide, and the feeling that many suicides might be prevented, led the World Health Organization to include lessening of suicide proportions among its major health goals for the year 2000. One approach to minimize suicide could be educating of psychiatric nurses in suicide prevention[1]. Providing front-line staff with the knowledge and skills to promote good emotional health and to deliver early interventions for suicide is essential to promote psychological patient's psychological well-being and to identify early indicators for suicide[2-4].

Health care professionals also experience a sense of failure after a patient's suicide. They consider that they should have done better, assessed the patient more carefully, been more aware of signs of suicide, or provided closer supervision. Additionally, they reported that the fear of a claim leads to intense suffering after patient has committed suicide. Despite the existence of suicide management strategies, environmental safety precaution and code of behavior in most hospitals which can help nurses to intervene patients at risk for suicide, these policies and techniques aren't followed properly. Nurses may not have the applicable knowledge, abilities or approach towards suicide prevention, which are factors that inevitably influence their disposition and ability to provide appropriate care[5-7].

According to Sun and long (2006), numerous essential skills are required from nurses in order to assess patients' suicide hazard through attentive observation, monitoring suicide clues, utilizing their interviewing skills and assembly information about prompts of suicide. An incessant assessment for patients during the hospital stay is central to capture the patient's changing emotional state[8]. However, some nurses are not properly cultured or trained in suicide assessments. Engaging in professional relationship with patients is pivotal for both nurses and patients where the patient feels confirmed as a noteworthy person and is moved from a 'death-oriented' position to a 'life-oriented' position through the process of 're-connecting with people[9,10]. In contrast, patients may have conveyed feeling of not being adequately cared for (e.g. lack of endorsement, negligence) have led to increased suicidal risk while hospitalized. The intuition of mental health nurses for identifying suicide hazard is linked to formal and implicit knowledge[11-13].

Determining nurse's knowledge about suicide has been a subject of limited studies and analyses. The authors attempted to create a new diagnostic tool for psychiatric nurses that allows to determine knowledge about suicide in psychiatric units. Most systematic reviews of suicide interventions have

focused on community interventions. In an internationally based systematic review, suicide experts reviewed the efficacy of 91 suicide prevention interventions and concluded that lack of access to lethal methods and education of nurse were interventions that reduced suicide rates[14,15].

The perception of lack of clarity in work with suicidal patients was significantly more prevalent among nurses and assistant nurses than among psychiatrists. Findings from an interview study of 22 psychiatric nurses' experiences of teamwork in inpatient care on a general psychiatric ward in Sweden. The nurses' narratives revealed a perception of lack of clarity about what type of care should actually be provided by a psychiatric team. They seemed to lack a stable ward structure, as well as a constant and anticipated external structure for their work[16-20].

Method of scale development

A theoretical rational deductive method of scale development was used for the NKSQ(Nurse Knowledge about suicide questionnaire)The items of the questionnaire were developed based on personal practices, relevant theories, and discussions with experts, participant's nurses working in psychiatric hospital, in order to achieve the utmost degree of construct validity (Holmbeck and Devine, 2009) [20,21] .Consequently, numerous concepts and items which are pertinent to suicide knowledge were written into the questionnaire, with consideration of cultural appropriateness and face validity.

Gathering literature on suicidality

To develop the Nurse Knowledge about Suicide Questionnaire, the researcher examined the literature on psychiatric patient's suicide, collected articles and theory explaining nursing role for suicidal patients and examined existing scales for suicidal risk. Those scales included Knowledge about suicide postvention (KSPV), Suicide Knowledge Quiz, SAD PERSONS Scale, Suicide Ideation Questionnaire and Suicide Intervention Response Inventory 2 (SIRI 2). After analysis of the contents of each scale ,the researcher found that there were no specific items related to psychiatric patient suicide or covering all suicide risk factors for and warning signs for suicide ;therefore it was essential to develop specific tool to assess nurse knowledge about patient's suicide. Based on the review of literature [10-22] and the previous analysis of the contents of scale mentioned above , the researcher discussed the vital components of the questionnaire with group of experts, then establish theme for items development which include ;related to concept of suicide, suicide prevalence rate, suicide risk factors ,causes of suicide ,method of suicide, ethical principles for dealing with suicidal patients ,treatment of suicide and nursing role in suicide deterrence in the

screening questionnaire. Most expert suggests to write positive and negative statements and some statement were written with its reverse to precisely assess nurse knowledge about suicide. The primary version of questionnaire consisted of 60 items which being grouped into 6 conceptual areas (all questions had to be answered as a yes/no). All items were created and validated in Arabic language.'

Expert panel review

A panel of ten expert viewers was consulted to further refine the item pool of the NKSQ. Reviewers consisted of 4 members of academic staff who all held an advanced degree in psychiatric nursing and were considered experts in the fields of clinical mental health nursing and two other professors of psychiatry who were expert in clinical psychology and suicidology. The viewers were asked to rate the importance and fit (to the six conceptual area) of each of the 30 preliminary NKSQ items according to a five-point scale (0 to 4, where 0 = completely unimportant and 4 = completely important) .After reviewing, all items were considered relevant to the aim of study, and a recommendations were made regarding the exclusion of 5 items and addition of new 25 item which grouped into the following concept (psychiatric symptoms causing suicide ,psychiatric disease causing suicide) and some items were modified .

Final version of the NKSQ

After ultimate revision by the expert panel, the author modifies some statement and write additional two conceptual areas (psychiatric symptoms causing suicide, psychiatric disease causing suicide) for inclusion in the NKSQ. Hence, the last complete version of the NKSQ consisted of 84 items which grouped into eight conceptual areas. Before the researcher distribute the questionnaire to the proposed sample, all items in the questionnaire were written without the title of the conceptual areas, re-order the statement to avoid leading the answer to the participants.

Pilot study:

A pilot study was conducted on 20 nurses working at Tanta Psychiatric Hospital (inpatients ward) affiliated to ministry of Health and Population in Egypt after taking their approval to test the feasibility and applicability of the NKSQ, and determining obstacles that may be encountered during the period of data collection .Afterwards they requested to provide their comments about problems in completing it, including whether it was clear and understandable, and also whether the content was complete and relevant. Participants filled out the questionnaires through interview with the researcher. Any vague statement was clarified by researcher, after its implementation and

according to the results, some statements in this category (ethical principles for dealing with suicidal patients) needed rewarding, some statement in the category of (nursing role in suicide intervention) needed rewarding and some statement in the same category (replaced by more simple statements. Necessary modification done after discussion with expert and retested on 40 nurses worked in previous setting to assess reliability of the tool. After these producers, the ultimate version of the instrument to test validity and reliability was created.

RESULTS

Final revised version of the NKSQ

After conducting pilot study and retest questionnaire on participant to ascertain its reliability, the last version of NKSQ composed of 84 items which grouped into eight conceptual area ,and scoring system was calculated as the following: For positive items, true statement =1, false statement =0 .For Negative items , true statement = 0, false statement =1 .The total score then summated ,the minimum score is zero and the maximum score is 84. While additional research is desirable to validate the tool, the results provide a useful beginning point for nurses to assess knowledge about suicide.

Psychometric properties of NKSQ:

Validating the model:

Face validity

Face validity is the scope to which instrument fit the expectation. This is usually determined by enlisting an expert panel rather than by formal statistical methods (Peat 2001). According to Peat (2001) good face validity is essential because it is a measure of the expert perception of the acceptance, appropriateness and precision of an instrument. In this study face validity obtained through expert perceptions, an expert panel, comprising professor in clinical psychiatry, and some senior psychiatrists, was formed. Primary draft of the instrument were scrutinized for face validity and suggested changes were incorporated [21]

Content validity

Content validity is the degree to which the items in a questionnaire or instrument adequately cover the domain under investigation (Peat 2001). As with face validity, this is judged by experts rather than by formal statistical analyses. Content validity was initially considered similar to face validity. Thus, the expert panel, was asked to judge the instrument. The opinion of the expert panel was that, some modification required as two conceptual areas were included (psychiatric symptoms

causing suicide, psychiatric disease causing suicide) and some items were modified to be no obvious omissions in the instrument.

Reliability

Data analysis: Data were examined by means of SPSS18.0 and AMOS 18.0 software. Descriptive statistics was used to outline the demographic characteristics. Cronbach'α coefficient was computed for internal consistency reliability, and correlation coefficient (ICC) was used to evaluate test-retest reliability.

The Cronbach'α coefficient was 0.815, and it was marginally altered once some item was added to questionnaire. To evaluate test–retest reliability, 40 psychiatric nurses were reassessed after 2 weeks, and the correlation coefficient was 0.754.

Limitations and strengths

This study had several limitations. First, using test-retest participants may have tilted the sample toward people who had more interest in or information about suicide. Second, the sensitivity of screening tool is relatively low, which could be due to the use of broad or distal suicide risk questions to determine risk. The questions may also need further refinement and the use of Likert-type responses versus the *yes/no* responses may be useful to improve sensitivity. Further research to increase the sensitivity of the tool is necessary. The study's sample include large proportion of females which may limits the generalizability of our findings to future research with theme a sure should include more hetero- generous samples. Despite the noted limitations, the strong points are also important to mention. Most importantly, the NKSQ is the first measure toward nurse's knowledge about suicide and established through a arduous systematic procedure involving specialists in the fields of clinical psychiatry, suicidology and psychology. In addition to designed according to participant- specific language. The strong point of this work also include auspicious results from factor analyses and psychometric tests. The four -factor structure of the NKSQ was replicated with a great degree of veracity and solidity of the original 60 items were reserved in the last version of the measure.

CONCLUSION

In summary, this study resulted in the development of Nurses knowledge about suicide questionnaire. The analyses conducted served to demonstrate the reliability, and validity of the NKSQ The NKSQ looks to be a promising measure for future use within psychiatric facilities, but requires additional testing and evaluation so as to corroborate and substantiate the present findings.

If the measure continues to achieve sound in terms of psychometrics, it would be suggested for forthcoming use by scholars conducting suicide prevention training program that require pursuing of nurse's knowledge about suicide.

Nurses knowledge about suicide questionnaire

Please mark (correct) in front of the correct answer and mark (error) in front of the wrong answer

Statement	true	false
- The concept of suicide: 1 – Suicide is temporary ideas to kill oneself.	T	
2 –It is an attempt by which the person end his life, but did not lead to death.		F
3 –Suicide is the desire to inflict harm on others.		F
4. Suicide is self-harming behavior directly or indirectly.	T	
Suicide prevalence rate: 1. The highest suicide rate is between the ages of 15-24 years.	T	
2 – Suicide more commonly occurs in the countryside, such as cities		F
3 - The highest rate of suicide occurs after the age of 45 years.		F
4. Suicide occurs in men more than women.		F
5 - Suicide rate increases after the age of 60 years.	T	
Suicide / Suicide Factors 1. Poor social life, such as family disintegration, leads to suicide	T	
2 - The lowest rate of suicide among professionals especially psychiatrist		F
3 – Availability of psychotropic drugs for psychiatric patient can increase suicide rate.	T	
4. The younger are more likely to complete suicide than the older.	T	
5 - Imbalance in brain chemicals increases the incidence of suicide.	T	
6. Use of antidepressant drugs reduces the risk for suicide		F
7 – Past family history of suicide attempt not considered risk factors for suicide in this family.		F
8. Suicide rates are lower among psychiatric patients		F
9 - Availability of addictive drugs among young people is responsible for increasing the risk suicide.	T	
10. Poor economic life, such as poverty, leads to suicide.	T	
11 – Stress is one factors contributing to suicide.	T	
12. Suicide rates are high among people from high social class.	T	
13 - Social isolation does not lead to suicide.		F
14 - The highest suicide rate among professionals, especially psychiatrists.	T	
15 –Failure feeling leads to thinking of suicide.		
- Psychiatric symptoms causing suicide		

	True	false		true	False
1- anxiety	**T**		10-nausea		**F**
2. Violent behavior	**T**		11-guilt feeling	**T**	
3-dellusion	**T**		12hallucination	**T**	
4 - chronic headache		**F**	13-pain		**F**
5-toothache		**F**	14-feeling failure	**T**	
6 – Frustration	**T**		15-menstruation		**F**
7-anger	**T**		16-feeling injustice	**T**	

8-blurred vision		**F**	17-loneless	**T**			
9-sadness	**T**		18-loss of hope	**T**			
			19-sense of haterd	**T**			

- Suicide-causing psychiatric diseases:

	true	False		true	false
1. Depression	T		8. An acute anxiety	T	
2 - Diabetes		F	9 - AIDS		F
3-Epilepsy		F	10-Cancer		F
4-schizophrenia	T		11 - post traumatic disorder	T	
5-Bloodpressure		F	12-hysteria		F
6 - drug addiction	T		13 - skin disease		F
7-Alzheimer's		F	14-Personality Disorder	T	

Methods of Suicide: 1. The method of suicide varies according to the occupation of suicide attempter	T	
2 - The person with past history of suicide attempt able to choose a successful way to end his life.	T	
3. The method of suicide in males differs from females.	T	
4. Non-educated people use dangerous method for suicide than educated.	T	
5. The person's desire to commit suicide is sufficient to end his life, even this is the first attempt.	T	
6 - The method for suicide does not vary according to age.		F
7. The method for suicide vary according to the social class.	T	
8 - The most dangerous methods are used by literate people.	T	
Ethical principles in dealing with suicidal patient: 1. The patient has the right to end his life.		F
2 – Allowing patient to take medication by himself is incompatible with ethical principles of nursing profession.	T	
3 - The patient has the right to refuse treatment even he will harm self.		F
4. The nurse must inform the physician if she knows that the patient is thinking about suicide.	T	
5. It is not necessary to inform the suicidal patient of any information about his or her health and the treatment he receives.		F
6 - The patient has the right choose any decisions concerning his health, even he had suicide ideas.		F
7 – It is possible to isolate or restrain patient In emergency situation without his consent.	**T**	
8 - If patient tell nurses about his suicide plan ,she shouldn't tell any person about this plan to avoid losing patient confidence		F
Treatment methods used for suicide patients 1. Antidepressants.	T	
2- Immunosuppresive drugs.		F
3. Antibiotics.		F
4. Antipsychotics.	T	
5-vitamins.		F
6. Analgesics.		**F**
7 – Electroconvulsive therapy	T	
8. Psychotherapy	T	

Role of nurse in suicide prevention :. 1 - Direct observation of the patient suicide is necessary .	T	
2 - Nursing care received by the suicidal patient not effective for changing suicide ideas		F
3. Suicide occur without warning signs.		F
4. Patient's privacy is more important than observation.		F
5. The nurse must allow aggressive patient expressing his opinion.	T	
6. It is difficult to understand suicidal patient's need .	T	
7. Nurses must assess suicide warning signs .	T	
8 – Nurses shouldn't allow suicidal patients to socialize with other patients because of his danger.		**F**
9 - Effective planning for the current time distract patient from suicide .		F
10. Recreational activities have no role in reducing suicide attempts.		F
11 – It is important for the nurse to understand different patients capabilities and effective way to utilize these abilites 12 – Safety precautions and observation are important in protecting the patient.	T T	
13. Nurse feeling and attitude toward suicidal patient is more important than patients expression of his held feeling		F
14 - Giving advice to the patient changes his suicide idea		F
15. Patient expression of his feelings is very important.	T	
16 - The nurse should take care of the patient the hospital don't care outside the hospital or in the future.		F
17 - Indirect observation of the patient suicidal suicide is more important than direct observation.	**T**	
18 - It is necessary to observe any change in patient behavior because it may warn for suicide risk.	T	
19 - The primary role of nurse is to protect the patient and not to understand the patient's way of thinking.	**T**	
20 – Nurse anxiety when dealing with the patient increases his agression.	T	
21. The nurse should help the patient to socialize with other patients.	T	
22. A patient's positive view of the future help to modify suicide ideas	T	
23 – It is preferable to ask the patient about his suicide intent.	T	
24 –Patient express his negative feelings accidently	T	
25 - The nurse must not allow the patient to talk a lot about the sad events in his life and talk to him about real events .	T	
26 – Understanding patents is more important than his observation.		F
27 - The nurse can not modify patient 's suicide ideas.		F
28 – The medication prescribed for the patient is only way to improve his condition without any other methods.		F
29 – Asking patient direct question bout suicide increase suicide risk		F
30 - Communicate well with suicidal patient is very difficult.	T	
31 -Suicidal patients needs like the needs of other patients.		F
32 - It is not easy to help the patient to express his negative feelings.	T	
33. Safety precautions are more important than a patient's observation.		F
34 – Rewarding patient for good decisions has no benefit for patient..		F
35 - The patient with suicidal ideas should be isolated from other patient to avoid transefere his ideas to others .		F
36 – Modifying suicidal ideas not effective way to protect patient		F
37. The nurse needs specific skill to deal with the suicidal patient.	T	
38. The aggressive patient should express his anger in violent behavior		F
39-I t is easy to understand patients needs through direct questions.		F
40 – Spending long time with pessimistic patient not improve his condition.		F

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