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RESEARCH ARTICLE

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Risk for suicide nursing diagnosis and its related risk factors, in psychiatric settings: A descriptive study

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Abstract

Aim: To assess the frequency of *risk for suicide* nursing diagnosis and its related risk factors, in the nursing care provided in psychiatric settings.

Design: This is a descriptive study.

Methods: The samples were the documented nursing reports. These reports were evaluated and analysed in terms of using the NANDA-I *risk for suicide* nursing diagnosis and the risk factors related to this diagnosis.

Results: From the 1,440 reports that were reviewed, 10 nursing diagnoses and 478 risk factors, were identified. Based on the results of this study, *risk for suicide* is used at a very low level in psychiatric settings, while, considerable number of suicide's risk factors are still existing in these settings.

KEYWORDS
NANDA-I nursing diagnosis, psychiatric nursing, risk assessment, risk factors, suicide

1 | INTRODUCTION

According to the definition of National Institutes of Mental Health (NIMH, 2019): "suicide is when people direct violence at themselves with the intent to end their lives and they die because of their actions". A suicide attempt is: "when people harm themselves with the intent to end their lives, but they do not die because of their actions".

This phenomenon is one of the most important causes of death in many countries. Recent report from the World Health Organization (WHO) indicates that more than 800,000 people die each year because of suicide, which is almost a death in every 40 s. This alarming figure highlights an ongoing tragedy which can no longer be ignored (Wold Health Organization, 2018).With regard to this report, suicide is the second leading cause of death in the 15–29-year-old population and its death rates are more than homicide and war in each year (55%–45%) (Wold Health Organization, 2018). Suicide can occur in people of all genders, ages and all the ethnicities and as a result, every individual can be at risk. So, it is very difficult to predict who will attempt suicide (NIMH, 2019). Major risk factors include the following; previous history of suicide attempts, psychological problems, alcohol use, substance abuse, job loss and economic problems, loss of relationships, history of trauma or abuse, violence, conflict or crisis, pain and long-term illness. Most of the suicide done by using pesticides, hanging and firearms (Wold Health Organization, 2018).

Considering the fact that suicide is one of the major health problems, finding ways to identify people at risk is a crucial goal in promoting the community health, since the effects of this phenomenon could go beyond the individual itself and have a destructive influence on families, friends and communities (NIMH, 2019). It is suggested that history of suicide attempts is a significant risk factor for the subsequent suicides (Wold Health Organization, 2018). From this perspective, suicide can be similar to domino effect, that is, by the death of a person due to suicide, other people could also get involved.

1.1 | Background

Suicide and suicide attempts are complex behaviours, and many studies have been performed to identify, predict and prevent

suicidal behaviours (Oquendo & Baca-Garcia, 2014). One of the important areas is assessing the risk of suicide (Sands, 2007). It is recognized as one of the basic safety issues among health organizations, as evidence indicate that approximately 44% of those who lost their lives have had a history of admission to the psychiatric settings (Madsen, Erlangsen, & Nordentoft, 2017) and in more than 90 per cent of suicides, the criteria for a psychiatric disorder are completely met in the individual (Qin & Nordentoft, 2005). In this regard, the relationship between psychiatric disorders and suicidal behaviours is well-established. There are some deficiencies in the information about the risk of suicide, as well as its documentation, which could lead to the occurrence of suicide in psychiatric settings (Mills, Neily, Luan, Osborne, & Howard, 2006; Perlman, Neufeld, Martin, Goy, & Hirdes, 2011). Accordingly, focusing on the suicide risk assessment is the first step in the suicide prevention (Perlman et al., 2011) and nurses, as the central point in patient care (Hughes, 2008a, 2008b) and the ones who spend the most hours with patients, could play an indispensable role in the timely assessment of suicide.

For many years, nursing process has provided a systematic framework for the delivery of nursing care. It is consisted of six steps and uses a problem-solving approach that has come to be accepted as nursing's scientific methodology (Townsend & Morgan, 2017). Nursing diagnosis, as the second step of nursing process, helps nurse to formulate and prioritize the patient's potential or actual health problems (Müller-Staub, Lavin, Needham, & Achterberg, 2007). As suggested by several studies (Frauenfelder, van Achterberg, & Müller Staub, 2018; Frauenfelder, van Achterberg, Needham, & Müller Staub, 2016; Frauenfelder, Müller-Staub, Needham, & Achterberg, 2011; Thomé, Centena, Behenck, Marini, & Heldt, 2014), a great deal of research conducted among the nursing classifications, belong to the NANDA-I nursing diagnosis and it is the most widely used international classification in nursing science (Müller-Staub et al., 2007).

Risk for suicide as a nursing diagnosis addresses the particular issue of suicidal risk assessment. NANDA-I nursing diagnoses classification 2015–2017 (Herdman, 2014), defines *risk for suicide* as a: "vulnerability to self-inflicted, life-threatening injury". Behavioural, demographic, physical, psychological, situational, social and verbal risk factors, are among the risk factors in this nursing diagnosis (Table 1). Nursing care associated with preventing and identifying suicide is crucial in patients (Talseth & Gilje, 2011), and *risk for suicide* could be one of the components of this care.

There are several tools for suicide risk assessment such as Beck Hopelessness Scale, Beck Scale for Suicide Ideation (BSS®), Columbia-Suicide Severity Rating Scale, Geriatric Suicide Ideation Scale, interRAI Severity of Self-harm Scale (interRAI SOS), Mental Health Environment of Care Checklist, Modified Scale for Suicide Ideation, Nurses' Global Assessment of Suicide Risk, Reasons for Living Inventory, SAD PERSONS and SAD PERSONAS Scales, Scale for Impact of Suicidality – Management, Assessment and Planning of Care, Suicidal Behaviours Questionnaire, Suicide Intent Scale, Suicide Probability Scale and Tool for Assessment of Suicide Risk (Perlman et al., 2011). Despite all these tools are available to identify suicide, it is still occurring in psychiatric settings (Madsen et al.,

TABLE 1 Risk factors in the Risk of Suicide Nursing Diagnosis

Risk for suicide
Definition: **Vulnerable to self-inflicted, life-threatening injury**
Risk factors
Behavioral
• Changing a will • Giving away • History of suicide attempt • Impulsiveness • Making a will • Marked change in attitude • Marked change in behaviour • Marked change in school performance • Purchase of a gun • Stockpiling medication • Sudden euphoric recovery from major depression
Demographic
• Age (e.g. older people, young adult males, adolescents) • Divorced status • Ethnicity (e.g. white, Native American) • Male gender • Widowed
Physical
• Chronic pain • Physical illness • Terminal illness
Psychological
• Family history of suicide • Guilt • History of childhood abuse (e.g. physical, psychological, sexual) • Homosexual youth • Psychiatric disorder • Substance abuse
Situational
• Access to weapon • Adolescents living in non-traditional settings (e.g. juvenile detention centre, prison, halfway house, group home) • Economically disadvantaged • Institutionalization • Living alone • Loss of autonomy • Loss of independence • Relocation • Retired
Social
• Cluster suicides • Disciplinary problems • Disruptive family life • Grieving • Helplessness • Hopelessness • Insufficient social support • Legal difficulty • Loneliness • Loss of important relationship • Social isolation
Verbal
• Reports desire to die • Threat to killing self

2017). Moreover, based on the lack of information and documentation about the risk of suicide, it can be concluded that there are some possible deficiencies in identifying and recognition of the suicide in these settings and *risk for suicide* as a nursing diagnosis may be a promising tool for suicide risk assessment. Thus, this study is aiming to assess the frequency of *risk for suicide* and its related risk factors, in the nursing care provided in psychiatric settings.

1.2 | Research aim and questions

The main purpose of this study was to assess the frequency of *risk for suicide* nursing diagnosis and its related risk factors, in the nursing care provided in psychiatric settings.

The research questions were as follows:

- What is the frequency of using *risk for suicide* nursing diagnosis, in the nursing care provided in psychiatric settings?
- What is the frequency of using risk factors related to the *risk for suicide* in the in psychiatric settings?
- Which of the risk factors categories are more used in these settings?

2 | METHODOLOGY

2.1 | Design

This was a descriptive study performed over 9 months, between January andSeptember 2018. According to the similar studies (Frauenfelder et al., 2016), one of the best ways to assess the provided care are the nursing reports. So, written nursing reports were evaluated and analysed in terms of using NANDA-I *risk for suicide* nursing diagnosis and the risk factors related to this diagnosis.

2.2 | Setting

The study was done in *Roozbeh hospital*, a psychiatric centre with 204 active beds and almost 190 nurses (patient ratio of 1.07), located in Tehran, Iran. This hospital is affiliated with Tehran University of Medical Sciences and has departments such as men, women, children, emergency, addiction and the inpatient clinics. It is one of the first and leading psychiatric centres in Iran.

2.3 | Samples

Samples were the nursing documented reports. 1,440 number of reports were selected by census method of sampling (Complete Enumeration).

Inclusion criteria include: (a) written nursing documentations of emergency, men, women, children and addiction, departments; and (b) nursing reports being documented in the recent year (2017). Exclusion criteria involve: (a) in case there are no nursing diagnosis or risk factors in a nursing report, it put aside from the study.

2.4 | Data collection

In accordance with the study aims, 1,440 nursing reports were assessed, in terms of the frequency of *risk for suicide* and the risk factors in this nursing diagnosis. The information was collected within 9 month. No specific tools were used in this study, and only the frequency of the nursing diagnosis and the risk factors were assessed. To enhance the accuracy of the collected data, two members of the research team evaluated the data.

2.5 | Data analysis

Descriptive statistics were applied to calculate the frequency of the identified *risk for suicide* and the related risk factors.

3 | RESULTS

From the 1,440 nursing reports reviewed in this research, 10 number of *risks for suicide* were noted. Whereas, various risk factors (total of 478) found in this assessment. Behavioural (38%), Social (32%), Psychological (15%), Situational (10%), Verbal (3%) and Demographic (2%) categories had the largest portion, respectively (Table 2).

Among the different risk factors used in the reports, hopelessness, history of suicide attempt, psychiatric disorder, impulsiveness, living alone, social isolation/insufficient social support/helplessness, marked changes in behaviour, loneliness/loss of important relationship/disruptive family life, marked change in attitude, grieving and economically disadvantaged, were the most common used risk factors.

Other risk factors which were less commonly found in reports include guilt, reports desire to die, stockpiling medication, making a will/changing a will, substance abuse, access to weapons, threats to killing self, sudden euphoric recovery from major depression, male gender, institutionalization, disciplinary problems/legal difficulty, age and history of child abuse. A handful of other risk factors were also used, as indicated in the Table 3.

4 | DISCUSSION

The aim of this research was to determine the frequency of *the risk for suicide* nursing diagnosis and the associated risk factors in the

TABLE 2 Categories of the risk factors found in the Nursing documented reports

Category of the used risk factor	Per cent (Numbers)
Behavioural	38% (*N* = 181.64)
Social	32% (*N* = 152.96)
Psychological	15% (*N* = 71.7)
Situational	10% (*N* = 47.8)
Verbal	3% (*N* = 14.34)
Demographic	2% (*N* = 9.56)

nursing care provided in psychiatric settings. The main finding of the study is that, *risk for suicide* was used only for 10 times, while the related risk factors, used 478 times. These findings could suggest the high likelihood of suicide occurrence in these settings, due to the presence of the different risk factors in the nursing reports; however, the low level of the nursing diagnosis shows that there may be some deficiencies in the recognition and employing of this nursing diagnosis among the nurses working in psychiatric settings.

The low level of using *risk for suicide* in this study can be discussed from different aspects. Firstly, it should be pointed out that risk of suicide by itself cannot suggest a weakness in the knowledge of the nurses, as Frauenfelder et al. (2016) stated, although most nurses working in psychiatric settings are not familiar with nursing diagnosis during their academic curriculum, their knowledge and skills have not been transmitted to daily care and the NANDA-I nursing diagnoses is not being used in these settings. Furthermore, the low use of the nursing diagnosis in the nursing reports may not suggest that there is no risk of suicide at all, because of the existence of high number of risk factors in the reports. Therefore, one of the reasons for not using a nursing diagnosis, or using it at a low level, could be the low proficiency in the use of this nursing diagnosis, rather than the academic preparation.

TABLE 3 Risk factors found in the Nursing documented reports

Risk factors	Numbers
Hopelessness	*N* = 104
History of suicide attempt	*N* = 90.82
Psychiatric disorder	*N* = 52.34
Impulsiveness	*N* = 36.32
Living alone	*N* = 23.6
Social isolation/Insufficient social support/ Helplessness	*N* = 18.35
Marked change in behaviour	*N* = 18.16
Loneliness/Loss of important relationship/Disruptive family life	*N* = 15.29
Marked change in attitude	*N* = 14.53
Grieving	*N* = 12.23
Economically disadvantaged	*N* = 11.95
Guilt	*N* = 8.6
Reports desire to die	*N* = 8.6
Stockpiling medication	*N* = 7.26
Making a will/Changing a will	*N* = 7.26
Substance abuse	*N* = 7.17
Access to weapon	*N* = 7.17
Threat of killing self	*N* = 5.7
Sudden euphoric recovery from major depression	*N* = 5.44
Male gender	*N* = 4.78
Institutionalization	*N* = 3.82
Disciplinary problems/Legal difficulty	*N* = 3.05
Age	*N* = 2.86
History of childhood abuse	*N* = 2.86
Divorced status/Widowed	*N* = 1.91
Giving away possessions	*N* = 1.81
Loss of independence/Loss of autonomy	*N* = >1
Family history of suicide	*N* = >1

The other potential reason behind the using of *risk for suicide*, is the formulation of diagnostic expressions. According to the previous studies, merely expressing the diagnoses is not enough to identify patients' needs and only diagnosis that based on the aetiology can lead to better patient outcomes. As a result, nursing education planning should focus on improving the accuracy of the nursing diagnoses and diagnostic reasoning based on the identification of the signs, symptoms and aetiology (Müller-Staub, 2009; Müller-Staub, Lavin, Needham, & Achterberg, 2006). In the present study, nurses were successful in using the risk factors and in identifying sign and symptoms, but did not succeed in reaching to the aetiology and achieving the appropriate nursing diagnosis.

In addition, another explanation can be the importance of reporting and documenting in nursing care. In most countries, nursing reports are a part of the patient's health history and health laws require the documenting of the medical and nursing care. Therefore, the nursing reporting not only reports and compares, but also improves the quality of the nursing care (Müller-Staub et al., 2006). In this perspective, nurses might have identified the suicide risk in this study, but they have failed to document the identified diagnoses.

Based on the yielded results regarding the risk factors used in the nursing reports, the most frequent risk factors are as follows: hopelessness, history of suicide attempt, psychiatric disorder, loneliness, social isolation and insufficient support and impulsiveness, which they will be discussed in detail.

4.1 | Hopelessness

With regard to the Beck's hopelessness theory, hopelessness is defined as the extent of negative attitudes about the future and conceptualized it as the perceptual experience of the anticipation of undesirable situations or consequences that are largely beyond one's control (Beck, Weissman, Lester, & Trexler, 1974; Huen, Ip, Ho, & Yip, 2015). Hopelessness is one of the main factors in relation to the suicide phenomenon (Beck, 1986; Beck, Brown, & Steer, 1989; Zhang & Li, 2013). It is both a nursing diagnosis in the self-perception domain and a risk factor in the *risk for suicide* nursing diagnosis. Based on the recent studies, hopelessness was among the most frequent nursing diagnoses used in psychiatric adult inpatient care (Frauenfelder et al., 2018) and the most used risk factor in the present study. As demonstrated by Beck in 1993, hopelessness is a more sensitive risk factor than depression and it can lead to formation of the suicidal thoughts and suicide intent in an individual, which indicates the high importance of hopelessness in relation to the suicide (Minkoff, Bergman, Beck, & Beck, 1973; Perlman et al., 2011) and this is similar to what is found in our study as with 104 risk factors, hopelessness have the highest number of risk factors

and it is actually the most significant risk factor related to the *risk for suicide*.

Hopelessness is not only has proven itself as a strong predictor of suicide, but it also intensifies the effects of psychiatric symptoms in enhancing the likelihood of suicide, meanwhile. Several studies suggested an increased risk of suicide in people who had a combination of hopelessness and other personal factors such as homelessness or loss (Steeg et al., 2016). So, focus on reducing the psychiatric symptoms should be combined with relieving feelings and perceptions about disappointment (Gooding et al., 2015).

4.2 | History of suicide attempt

History of suicide attempts had a major portion in behavioural risk factors in this study, and it was the number one risk factor in the behavioural category. According to many studies (Boyce, Carter, Penrose-Wall, Wilhelm, & Goldney, 2003; De Leo, Cerin, Spathonis, & Burgis, 2005; Sands, 2007), it is a considerable factor in increasing the chance of attempting suicide in individuals, which could increase the number of people dying by suicide (Boyce et al., 2003; De Leo et al., 2005; Sands, 2007).

Moreover, research indicated that previous history of suicide is among the potentiating risk factors for suicide (Perlman et al., 2011; Rudd et al., 2006). For example, a person who has a previous suicide attempt may become hopeless by the inability to financially support his/her family and begins to express suicidal thoughts, which place the person at a higher risk for suicide (Perlman et al., 2011).

4.3 | Psychiatric disorder

It is estimated that 147 out of every 100,000 who is admitted in inpatient psychiatric hospitals, attempt suicide, which is a considerable figure compared with the general population (11.4 per 100,000 people) (Madsen et al., 2017; Walsh, Sara, Ryan, & Large, 2015). Over 90% of people attempting suicide have completed the criteria for diagnosis of a psychiatric disorder (Qin & Nordentoft, 2005) and generally, people with mental health problems, have a higher risk of death due to the natural and unnatural causes. Literature shows that these people have an average lifespan 15–20 years shorter than others, part of which is due to the die by suicide (Madsen et al., 2017). Ninety per cent of people who die by suicide in the USA, have had a psychiatric disorders such as depression, drug abuse and other disorders (Perlman et al., 2011). Therefore, the relationship between psychiatric disorders and suicidal behaviour is well-documented, which is consistent with the results of our study.

Psychiatric disorders that have the most risk for suicide include mood disorders, psychotic disorders, anxiety disorders, alcohol and substance abuse and personality disorders (Chehil & Kutcher, 2012). Regarding the mentioned studies, the risk of suicide in patients hospitalized in psychiatric settings is very notable at the time of admission, during hospitalization, discharge and even afterwards. Due to the fact that all the people with psychiatric disorders do not always receive the adequate treatment, recent studies have found that suicide risk can be increased based on the level of care received by the patient (Madsen et al., 2017). For this reason, receiving the proper and timely nursing care for an individual can be a rescuer and also reduce the risk of suicide (Suominen et al., 2003).

4.4 | Impulsiveness

Impulsiveness was the second most common risk factor (with 36.2 risk factors) in the behavioural category. Recent models have emphasized the importance of impulsiveness in the suicide risk (Klonsky & May, 2010). Impulsiveness, as a prominent concept in many personality theories, includes a range of behaviours that indicate impaired self-regulation, such as poor planning, premature reaction before considering the consequences, risk-taking, an inability to inhibit responses and preference for immediate over delayed rewards (Evenden, 1999; Gvion & Apter, 2011; Whiteside & Lynam, 2001). Research on suicidal behaviours have greatly identified impulsiveness as an important factor in suicide risk, as increased levels of impulsive personality are connected with different indices of suicidal behaviour, suicidal thoughts and suicide attempts (Dougherty et al., 2004; Hull-Blanks, Kerr, & Robinson Kurpius, 2004; Witte et al., 2008). There is also an evidence that indicates impulsiveness in people who die of suicide is at higher levels (Maser et al., 2002; Witte et al., 2008).

Reviewing different theories about the relationship between suicidal behaviour and impulsiveness, it seems that the evidence for indirect relationship of these two concepts is more convincing, that is the impulsiveness of a person does not necessarily lead to attempting suicide in the person. Actually, impulsiveness engages in the suicidal behaviour, in the face of a stressor (Witte et al., 2008). For instance, according to the Spokas' study on the characteristics of the individuals attempting suicide suddenly, it was found that those who had a history of alcohol abuse, attempt suicide more than those who did not have this problem (Spokas, Wenzel, Brown, & Beck, 2012). Other studies also shown the fact that impulsiveness causes a person to be more vulnerable to the suicidal psychopathological factors (e.g. drug abuse and type-B personality) (McGirr et al., 2008).

4.5 | Loneliness, social isolation and insufficient support

It is suggested that loneliness can reduce well-being in the form of depression, sleep disorders, loss of appetite and so on. For this reason, it is one of the hidden reasons of admission to hospitals and nursing care facilities. Social isolation means that there is not any communication, or there is no satisfying social communication in an individual (Ingram, 2019). Lonely individuals are more likely to initiate harmful behaviours such as smoking, excessive alcohol consumption, overeating and unhealthy sexual behaviours, as the psychological soothing mechanisms (Cacioppo & Hawkley, 2003; Cacioppo et al., 2002; Heffner, Waring, Roberts, Eaton, & Gramling, 2011; Lauder, Mummery, Jones, & Caperchione, 2006; Leigh-Hunt et al., 2017; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). In addition,

individuals who are socially isolated may experience more stress than the rest of the population, due to the lack of relationships and social support (Christakis & Fowler, 2013; Leigh-Hunt et al., 2017). On the other hand, the friends and family network can promote the healthy behaviours and moderate the unhealthy ones. Therefore, relationships can play a buffering role against the loneliness and its negative effects.

Various studies have addressed the correlation between loneliness and social isolation in the mental health field. According to a review of literature by Heigh et al, these two concepts were associated with suicide (suicidal ideation, behaviour, attempts and die by suicide), as low sense of belonging is related to the higher levels of suicidal thoughts and suicide attempts. In general, evidence shows that both, social isolation and loneliness, are connected to all types of deaths (Leigh-Hunt et al., 2017).

Based on the results of our study, living alone, social isolation/helplessness, loneliness/loss of important relationship/disrupted family life, altogether, had 57.27% and 11.97% of the total risk factors identified in this study. Given that loneliness and social isolation are common in today's societies, so they could be of a great importance with respect to the risk of suicide.

Based on the similarity between the risk factors found in our study and the contributing predictors of suicide in the reviewed research, it can be concluded that these risk factors could be an effective tool in identifying suicide and predicting its risk in psychiatric settings. Overall, the identification of these risk factors requires an especial attention from nurses and these findings have highlighted the importance of the nursing care provided in psychiatric settings.

5 | CONCLUSION

According to the results of this study, *risk for suicide* nursing diagnosis is used at a very low level in psychiatric settings, while considerable number of risk factors related to the suicide existed in the meantime. Therefore, planning in-service programs for the nurses working in the psychiatric field, to identify and employ the *risk for suicide*, is strongly recommended.

6 | LIMITATIONS

One of the limitations in this study was that there was not any observation or supervision of nurses in-person. For this reason, only the information documented in the nursing reports was used for the data collection, from the reports' archive.

7 | IMPLICATIONS FOR PRACTICE

The findings of this study indicate the lack of using *risk for suicide* in the nursing reports. In addition, there was a strong similarity between the risk factors of this nursing diagnosis and the contributing predictors of suicide. As a result, teaching this nursing diagnosis and its risk factors to the nurses working in psychiatric field can be one of the foremost educational priorities and its importance should be reconsidered in the educational in-service programs.

CONFLICT OF INTEREST

No conflict of interest has been stated by the authors.

AUTHOR CONTRIBUTIONS

BS collected the data, analysis the results, and also, is the corresponding author of the article. TT designed the method and analysed the data.

ETHICAL STATEMENT

This study was conducted based on the ethical approval of the Joint Ethics Committee of School of Nursing and Midwifery and School of Rehabilitation, Tehran University of Medical Sciences, code IR.TUMS.FNM.REC.1396.2697, and permission for collecting data was obtained from the education office of School of Nursing and Midwifery, as well as Roozbeh hospital education Office, and the nursing office of this hospital, to access to the nursing reports. In agreement with the written commitment to the hospital's nursing office, the personal information of the patients, whose nursing reports were being reviewed, was not used in the study results.

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