SUICIDAL BEHAVIOR: AN UNDERSTANDING FROM THE PERSPECTIVE OF BETTY NEUMAN THEORY

COMPARTMENTO SUICIDA: UMA COMPREENSÃO SOB A ÓTICA DA TEORIA DE BETTY NEUMAN

COMPORATAMIENTO SUICIDA: UNA COMPRENSIÓN DESDE LA PERSPECTIVA DE LA TEORÍA DE BETTY NEUMAN

Robertino Nascimento de Albuquerque
Moema da Silva Borges

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Objective: to understand the phenomenon of suicide from the perspective of Betty Neuman’s System Theories Model. Method: qualitative research, conducted between August and September 2018, with Nursing students from a private higher education institution in the Federal District who attempted suicide. The data were submitted to content analysis, with the aid of Alceste software, and interpreted from the perspective of Betty Neuman’s Nursing theory. Results: two axes emerged from the content analysis: the first highlighted the main intrapersonal stressors faced by the students, distinguishing different amortization strategies used in stress management. The second refers to the possible origin of limiting beliefs that contributed to psychic suffering and regret after the suicide attempt. Final considerations: Betty Neuman theory proved to be an effective tool in understanding the social phenomenon of suicide, and may appear in the list of perspectives of theoretical-philosophical understanding of the problem, highlighting nursing science.


Objetivo: comprender el fenómeno del suicidio desde la perspectiva del Modelo Sistema de Teorías de Betty Neuman. Método: investigación cualitativa, realizada entre agosto y septiembre de 2018, con estudiantes de Enfermería de una institución privada de ensino superior del Distrito Federal que tentaron suicidio. Los datos fueron sometidos al análisis de contenido, con auxilio de software Alceste, e interpretados desde la perspectiva de la teoría de enfermería de Betty Neuman. Resultados: de la anlisis de contenido emergieron dos ejes, el primero destacó los principales estresores intrapersonales enfrentados por los estudiantes, distinguiendo diferentes estrategias amortizadoras utilizadas en manejo del estrés. El segundo, refiere-se a la posible origen de creencias limitantes que contribuyeron a la soledad psíquica y arrepentimiento tras la tentativa de suicidio. Consideraciones finales: la teoría de Betty Neuman demostró ser un efectivo herramienta en el entendimiento del fenómeno social del suicidio, podiendo figurar en el listado de perspectivas de comprensión teórico-filosófica del problema, destacando la ciencia de la Enfermería.


Objetivo: entender el fenómeno del suicidio desde la perspectiva del Modelo Sistema de Teorías de Betty Neuman. Método: investigación cualitativa, realizada entre agosto y septiembre de 2018, con estudiantes de Enfermería de una institución privada de educación superior en el Distrito Federal que intentaron suicidarse. Los datos fueron sometidos al análisis de contenido, con la ayuda de software Alceste, e interpretados desde la perspectiva de la teoría de Enfermería de Betty Neuman. Resultados: dos ejes surgieron del análisis de contenidos: el primero destacó
Suicidal behavior: an understanding from the perspective of Betty Neuman theory

Introduction

Over 800,000 estimated suicides occur annually worldwide, resulting in one suicide every 40 seconds; of this total, 79% occurred in low- and middle-income countries. However, men are three times more likely to die by suicide than women in high-income countries. Moreover, suicide was the main cause of death among 15- to 20-year-olds, behind only traffic accidents (1).

In Brazil, in the period 2011-2018, young people aged 15 to 29 years who had reported self-exterrmination attempts were predominantly white (47.5%), with incomplete or complete high school (33.7%), with some mental disorder (19.5%), mostly living in the urban area (89.4%) in the Southeastern (48.8%) and Southern (24.6%) Brazil. The profile of young people who committed suicide in the same period was mostly male (79%), black (54.9%), with 4 to 11 years of schooling (58.2%) (2).

Suicidal behavior, which comprises the phases of ideation, planning and suicidal act, is a complex and multifactorial phenomenon, and can be influenced by different aspects that interact with each other, such as personal, psychological, social, environmental, spiritual, cultural and biological issues (3). Due to this complexity, suicidal behavior cannot be understood through linear analysis of isolated problems. Therefore, the apprehensions around the pluralities and singularities of each act are a great challenge.

Although there have been many studies on suicide since the 19th century, it is suggested that reports and discussions about “suicide” have occurred since the Middle Ages (4). Currently, reflections on suicidal behavior have been focused on human emotions. Edwin Shneidman, considered the precursor of suicide study in the context of postmodernism, emphasizes that, in order to embrace a person in suicidal ideation, one must seek a solution to a seemingly unavoidable discomfort, such as frustrated psychological needs, a solitary and desperate solution for those who suffer and who do not seem to see alternatives (5).

In the direction of this understanding, different areas of knowledge have been used to explain the phenomenon of suicide, such as Biology, Medicine, Anthropology and Sociology. However, the use of a theory or conceptual model specific to Nursing in clinical practice and in the investigation on suicidal behavior are rare or nonexistent.

Understanding that the use of Nursing’s own conceptions supports and underpins Nursing knowledge in the list of sciences that seek to unravel suicidal behavior. This study sought, using the theoretical bases of Betty Neuman’s systems model, to broaden the understanding of the phenomenon in order to favor the care of people who present suicidal behavior, that is, who have gone through the stages of ideation, planning and suicidal act (6).

Since the 1960s, Betty Neuman has been recognized as a pioneer in the Nursing field, especially in the area of mental health. Neuman’s model uses an approach of systems focused on human needs for protection and stress relief. Moreover, it emphasizes the need for a dynamic balance of human beings, which can be provided by nurses through the identification of problems, mutually agreed goals and the use of the concept of prevention as an effective Nursing intervention, distinguishing that the
causes of stress can be identified and remedied by Nursing mediations\(^{7,8}\).

Therefore, the fundamental question of this study was: “How does Betty Neuman theory contribute to the identification of stressful factors that trigger suicide?” Thus, the aim of this research was to understand the phenomenon of suicide from the perspective of Betty Neuman’s System Theories Model.

**Method**

This is an exploratory, descriptive study with a qualitative approach, based on the Consolidated criteria for reporting qualitative research (COREQ), translated and validated in Brazil\(^9\).

The present study constitutes a qualitative approach linked to a matrix research entitled “Suicidal Behavior among Nursing Students: A Study in the Light of Betty Neuman’s Systems Model”. The full investigation was carried out in two stages. The first was a descriptive, quantitative research conducted with 1,567 Nursing students between October and November 2017. The data collection scenario was a private higher education institution in the Federal District, in Midwestern Brazil.

In this first stage, questions related to the level of stress, anxiety, depression and suicidal behavior of Nursing students were evaluated throughout different moments of the course\(^{10}\).

The article here presented refers to the second stage of the research. For the selection of students in this stage, after being authorized by the institution field of study, the coordination of the course was requested to send an institutional message to all students matriculated in the Nursing course, inviting the 1,567 students who participated in the first stage of the research and have a history of attempts of self-extermination. Students who refused to sign the Informed Consent Form (ICF) and those who felt uncomfortable to talk about what happened were excluded.

Twenty-five students responded to the invitation. Among these, eleven were only available to assist the researcher during data collection; five reported that they had experienced only suicidal ideation; among the nine who had already a history of attempt, three gave up. Thus, six students met the inclusion criteria to participate in the second stage.

After confirming the availability of participation in this stage, the day and convenience time of each of them were scheduled in the facilities of the Psychology clinic of the institution field of study. The interview was conducted by one of the researchers, MSc in Nursing and professor at the institution. It is noteworthy that a team of psychologists and psychology students of the said clinic were aware of the content of the interview and available to meet the possible needs manifested by each student after the interviews, as well as accompany them during the rest of the course.

The average duration of the interviews was two hours. The interviewees talked about their life histories, difficulties and longings, detailing the motivation of suicidal behavior, including ideation, planning and performing the suicidal act, as well as the facts and feelings experienced after the act.

The data obtained in the interviews were recorded in audio, fully transcribed and composed the corpus that was submitted to content analysis with the aid of the software **Analyse Lexicale par Contexte d’un Ensemble de Segments de Texte** (ALCESTE), version 2017. It is worth clarifying that, through lexical analysis, ALCESTE groups the semantic roots of textual data (corpus) and, according to the occurrence and co-occurrence of words and their textual function, classes/categories are delimited. The use of this tool seeks to delimit the action and interference of the researcher in the process of separation of the categories/classes of analysis.
The analysis of the narratives was interpreted based on Betty Neuman’s Systems Model. This phase allowed grasping the significant aspects about the suicidal behavior of the group of students interviewed. To ensure the anonymity of the interviewees, their names were replaced by name of flowers.

The research was approved by the Research Ethics Committee under Opinion n. 73110117.9.0000.5650, following the ethical principles that govern research with human beings determined by Resolution n. 466/2012 of the National Health Council (CNS). All formal requirements contained in national and international regulatory standards involving human beings have been respected.

Results

Six students (four female and two male), aged between 20 and 24 years, matriculated in different academic semesters were interviewed, namely: second, fourth, sixth, seventh and eighth semesters of the Nursing course.

From the analysis of the content of the interviews, two significant axes emerged. The first axis, called “Intrapersonal Stressors and Shock absorbers”, was composed of classes 1 and 2, named respectively: “Asking for Help” and “Recognizing the Psychic Suffering” (Figure 1). In this axis, the main intrapersonal stressors faced by the students at that time stood out, distinguishing the different amortization strategies used in stress management. It was possible to identify that they recognized the internal factors that caused emotional pain and sought ways to attenuate them.

The second axis, called “Extrapersonal Stressors and System Reconstitution”, was composed of classes 3 and 4, named respectively “Disturbing Patterns of Family Balance” and “Consequences of the Act” (Figure 1). In this axis it was possible to apprehend that the students were immersed in a family ambience of high level of stress, permeated by domestic violence, feelings of exclusion and oppression, which translated into tense emotions. It can be inferred that these interpersonal stressors contributed in an important way to suicidal behavior. The reports allowed deducing that the failure of the suicidal act caused a transformation in the way of facing the problems, resulting in the decision to reconstitute one's own life.

Figure 1 – Dendrogram of the corpus of the survivors’ interviews, organized in two axes and four classes.
Axis 1: Intrapersonal Stressors and Shock absorbers

Below are the results of Axis 1 and its respective classes.

Class 1: Asking for Help

In this class, the words “psychiatrist”, “college”, “friendship” and the verb “trip” indicate the absorbing strategies used in the management of the high level of stress and emotional tension they experienced. Thus, they used different means of help in an attempt to minimize the stressing effects of the anguish felt. The fragments of the discourses below exemplify this situation:

After I went to a psychiatrist, I came to seek care here at the college psychology clinic […] I went to the CAPS and had psychological follow-up, but as I was pregnant, I could not go anymore and I was not willing to go either. (Sunflower).

I started buying tickets, traveling alone. I was also looking for casual sex. When I could not afford a psychologist or psychiatrist […] I started coming to college appointments. I show up when I am in crisis. (Carnation).

I started coming to the consultations at the Psychology Clinic here at the college. But I come when I am in crisis. (Orchid).

I spoke of the psychologist […] I was taking medications and I was going to the psychiatrist alone. (Violet).

I know I needed a more specific call. And that is when I first sought a psychiatrist […] I also tried the church, but it did not work out too well. There was a lot of intrigue and gossip. I could not find what I was looking for. (Rose).

Class 2: Recognizing the Psychic Suffering

In this class, the presence of the words “suicidal”, “life”, “help” and the verb “find” suggest that the interviewees had a high degree of self-perception about their conflicts, which caused important psychic suffering. The narrative highlighted the feeling of low self-esteem translated into shame, dissatisfaction and disbelief with life. These internal stressors can be grasped in the following discourses:

In my mind, everything makes sense [suicide]. I do not know, I think nothing will change. I think I will keep like this, maybe because I deserve it. (Rose).

I know many people need help and, like me, suffer in silence (Carnation).

I feel so ashamed to talk about it to my mother. I was finding it too hard and I would not stand it. (Violet).

Axis 2: Extrapersonal Stressors and System Reconstitution

Below are the results of Axis 2 and its respective classes.

Class 3: Disturbing Patterns of Family Balance

In this class, the words “father”, “mother”, “sister”, “home” indicate that dysfunctional family relationships possibly caused serious internal conflicts, the reason for the stressors that contributed to the risk factors of suicidal behavior. These perceptions are shown in the following discourses:

He started to hit me [father]. My boyfriend pushed my father, took me to my bedroom and called the police. (Rose).

My father has always cheated on my mother, a woman showed up saying she had a case with my father, saying she was pregnant. This cheating thing was too intense. So, I have always been afraid of this future for me (Sunflower).

My father had that history cliché of drinking and arguing with my mother. My brother and I grew up separating our parents’ fights. When I was a child, I used to Wake up three, four times because my father was hitting my mother. (Lily).

My mother would not let me call my father. My sister told me that a woman [lover] was pregnant of my father […] When my sister left home, I begged her not to leave me alone too. She was supposed to see me, but never did. (Violet).

Class 4: Consequences of the Act

In this class, the words “hospital”, “remember”, “regret”, “return” mention the shock experienced and the feelings that surfaced after suicide attempts, as well as the effort to remake life, according to the following reports:

All of that could have been avoided, that is why I regret it. But I though I would really die. (Rose).
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I remember still being with the tube [nasogastric tube] after waking up. I asked my mother what had happened. She started crying and asked me why I had done that. I regretted and wanted to leave the hospital. (Sunflower).

I jumped from the bridge. So I fell in the water and started to swim upward. When I got to the surface I remember screaming a lot. I felt so alive. (Lily).

I regret so much [...] I asked a Professor if there was a way to reverse their [medications] effects. He told me to run to the hospital, but then I saw nothing. (Violet).

Discussion

Adolescence, between pre-adolescence (10 to 14 years), adolescence (between 15 and 19 complete years) and youth (15 to 24 years)(11), is a decisive step in the individual’s life, because he/she acquires not only the definitive body image, but also issues of personality and personal identity are defined. Thus, in this phase of life, the young person may present a high stress index due to intense exaltations, demands, possible discouragements and many uncertainties, in addition to thoughts or feelings of giving up life(12).

In this context, studies indicate a direct correlation between stress, decreased life satisfaction, low self-esteem and increased suicidal behavior. Moreover, low self-esteem, especially among young people, can affect their way of being, feeling, acting in the world and relating to other people(13-17). Based on the context of crisis generated by the adolescence phase, this study sought to explain the possible causes of suicidal behavior, anchored in Betty Neuman’s Systems Theory.

For Neuman, each individual is composed of innate factors of a certain variety of normal response contained in a basic structure and there are many stressors – intra, inter and extrapersonal – that can be known, unknown and/or universal. The theorist believes that each stressor differs in its potential to disturb the level of stability of the individual. Thus, a single stressor (or their combination) can be crucial in the person’s life(7).

When encountering these stressors, it is necessary to understand how the individual will react to them. Neuman states that each individual is an open system consisting of a center (“Core”), surrounded by a series of concentric circles, which include the basic factors of survival common to all human beings and which is surrounded by hypothetical contours and different lines of defense of reaction to stressors. This conception can be represented schematically according to Figure 2(7).

Figure 2 – Neuman’s Systems Model

![Neuman’s Systems Model](source: Created by the authors.)
The first line of defense of the individual, called flexible defense line, is responsible for the initial response or protection of the system against stressors. This line serves as an absorber as it expands or moves away from the individual’s normal defense line. It acts as a shield for the usual stable state of the person’s system. Ideally, this flexible defense line is expected to prevent stressors from invading the system\(^7\).

In the narrative of the research students, it is observed that this first defense line could be exercised by the support of family members; the students could not count on the protection system of the family unit to contain the anguish in this first defense line against the stressors manifested and help handle them satisfactorily. Family support should represent a powerful support network, which would serve as an absorber for those stressors. However, the dysfunctional patterns in family interaction allowed identifying that the system was entangled in a network of suffering, without effective conditions of protection of the first protective defense line. This impossibility represented an important stressor for suicidal behavior.

The relationship between family and suicide has been widely analyzed in the scientific literature of suicide study. Studies reveal that individuals with a previous family history of affective and suicide disorders exhibited high rates of suicidal behavior. Parental loss resulting from divorce is also pointed out as a relevant factor for possible suicide attempts\(^18-22\).

In this context, requests for help from young people were probably not heard by the family system. The suffering of the family system itself certainly prevented it from recognizing that although everyone needed help, one of the members was asking for help and on the edge of the abyss; this fact resulted in the elevation of psychic suffering. The disruption of the first defense line favored the loss of total protection of the system.

The second defense line proposed by Neuman, called normal defense line, is composed of physiological, psychological, sociocultural, spiritual and development skills, which are used by the individual to deal with stressors\(^8\).

Due to self-perception of the high level of stress and emotional tension, the students recognized that they were at risk of psychic imbalance. In the absence of family support as an important barrier in the first defense line, they sought help both in professionals (psychiatrists, psychologists), and in other means of support that, in their assessment, would reduce suffering. Thus, they used casual sex, college admission, trips, parties and religious services. These actions correspond to what Neuman points out as psychological, social, sociocultural and spiritual skills to cope with stressors and are part of the strategies found in the second defense line\(^7-8\).

Despite individual efforts to minimize the harmful effects of stressors, it was observed that the strategies used in this second defense line were not sufficient to prevent the invasion of stressors in the system center/core.

The third and final line called the resistance line (or defense line) is closer to the center/Core. When corresponding to the internal factors of the individual, it may be the last defense against stressors\(^8\).

These internal factors understood the students’ negative self-perception of themselves, that is, the awareness of feelings of rejection, guilt, low self-esteem, among others, and drew the internal limits interpreted by Neuman as the internal factors of lesser value. These internal factors were added to the different inter, intra and extrapersonal stressors and exceeded the last psychic protection barrier with the invasion of the center/Core. The arrangement favored the outcome of the suicide attempt.

Thus, the interpretation of the phenomenon of suicidal behavior, through Betty Neuman’s theory, allowed grasping that the family was perceived by the young as the first defense line (flexible defense line) that should help them support their stressors. In the inefficiency of protecting this line, they sought support in their social network (normal defense line). Finally, their negative self-perceptions (resistance lines) were crucial for executing the suicidal act.
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The approximation of these results to the original diagram proposed by Neuman in her Nursing Theory of Systems Models allowed the synthesis and presentation of a diagram adapted to the Systems Models of suicidal behavior, presented in Figure 3.

**Figure 3** – Diagram of suicidal behavior adapted from Neuman’s Systems Model diagram

Source: Created by the author.

Neuman points out that, after the invasion of stressors in the body, the system reconstitution occurs, that is, the necessary rearrangements to combat such stressors. She points out that this reconstitution can occur at any time\(^\text{7-8}\).

Actions such as living at other home, getting married, having children, entering university and seeking professional, social and family support can be observed as strategies of attempts to reconstitution the system when stressors approach their lines of defense.

The suicidal act was pointed out as a moment of extreme suffering; however, surviving the act motivated the feeling of regret, which was crucial to the movement of resignification of life aiming at the reorganization of their systems. In this context, it is emphasized that strategies of qualified embracement and listening in the position of suicide constitute essential attitudes in the care of individuals. This action is pointed out in the reconstitution phase of its systems, a phase proposed by Neuman\(^\text{3,23}\).

In the process of reconstitution of one’s own life, qualified listening about suicidal behavior can help individual create and/or develop their potentialities. The suicidal act has an intimate relationship with the experience of traumatic situations to which it was not possible to give an attribution of meaning in life. Therefore, listening to the unique and singular experience that the person has gone through is fundamental...
for understanding the needs manifested in suicidal behavior and the help of the person who presented suicidal behavior\(^{24-25}\).

It is noteworthy that the students expressed joy at the opportunity of the speech and listening space provided by the interviews. For them, the possibility of describing what happened, in the certainty that they would not be judged, ratified that active listening represented an efficient strategy in the care process in the posvention.

The limitation of the study results from having been carried out in only one higher education institution, not allowing generalization of the trend of the phenomenon among young nursing students. However, future studies are expected to deepen the discussion of the various variables that contribute to a better understanding of this complex problem, through instruments that can help in the application of Betty Neuman’s Systems Model in relation to suicidal behavior in other scenarios of the academic context.

**Final considerations**

The results indicated the main intra, inter and extrapersonal stressors faced by students according to Neuman’s theory. They included the feeling of shame, the normalization of the woman’s condition of submission, disappointment with the paternal figure, domestic violence and parents’ marital separation. Such stressors certainly contributed to the origin of psychic suffering. To escape or mitigate the pain caused by intrasocial stressors, the students used strategies called Neuman psychological, social, sociocultural and spiritual skills to cope with stressors. Unfortunately, these strategies were not effective, resulting in the decision to commit suicide.

Due to the complexity of the suicidal phenomenon and the multifactoriality of aspects that interact with each other, it was not possible to point out the stressors in each phase of suicidal behavior.

However, it is important to emphasize that the early detection of stressors, as well as their proper management, constitutes a key action for the creation of new suicide prevention programs at the university level.

In addition, Betty Neuman’s Systems Theory Model proved to be an efficient tool to understand suicidal behavior, standing out as appropriate to comprehend the social phenomenon of suicide and to figure in the list of perspectives of theoretical-philosophical understanding of such a situation, highlighting Nursing as a science.

**Collaborations:**

1 – conception, design, analysis and interpretation of data: Roberto Nascimento de Albuquerque and Moema da Silva Borges;

2 – writing of the article and relevant critical review of the intellectual content: Roberto Nascimento de Albuquerque and Moema da Silva Borges;

3 – final approval of the version to be published: Roberto Nascimento de Albuquerque and Moema da Silva Borges.

**References**


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