



## Case Report

# Nursing care for a patient with bipolar disorder (mixed attack) based on the Neuman Systems Model: A case report

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### Abstract

Bipolar disorder is a chronic mental illness that can involve manic and depressive episodes, as well as mixed episodes that involve both manic and depressive episodes. It can lead to significant psychosocial impairment and disability and can adversely affect the social relations, education, and professional success of the individual throughout life. Bipolar disorder causes stress for both the patient and family members. In this period, when intense support is needed, informing the patient and his/her family about illness and treatment is important. The Neuman Systems Model focuses on the optimal wellbeing of the individual and holistic management of treatment. In its holistic approach, the Neuman System defines nursing as the only profession that deals with all the factors that can affect an individual's response to possible and true stressors. Neuman attributes the uniqueness of nursing to its use of information and its regular unification with treatment approaches. From this point of view, Neuman believes that nurses should act as health care coordinators for individuals. In this case report, nursing care was planned and applied based on the Neuman System Model for a forty-year-old adult female diagnosed with bipolar disorder. A nursing care plan was prepared, and nursing interventions were applied to the patient aligned with the North American Nursing Diagnosis Association nursing diagnosis. In conclusion, applied nursing care was effective for the patient's needs; however, there is a need for more model-based studies with larger samples.

**Keywords:** Bipolar disorder; Neuman Systems Model; nursing; nursing care.

#### What is known on this subject?

- Every attack suffered by the people diagnosed with bipolar disorder results in much stress for both the patients and their families.

#### What is the contribution of this paper?

- This study indicated that patients were assessed from a holistic perspective, that stressors were understood better during the therapeutic period, and that patients were able to actively participate in their care through the appropriate approaches after the Neuman Systems Model was used by the psychiatric nurse in the care plan for the patient diagnosed with bipolar disorder.

#### What is its contribution to the practice?

- This case report demonstrates which differences nursing practices performed in accordance with Neuman Systems Model generate for the symptoms of people with bipolar disorder. Use of nursing diagnoses assembled for this disorder, nursing care instruments, and nursing results is believed to significantly contribute to nursing practice.

**B**ipolar disorder (BD) is a chronic mental disorder characterized by depressive and manic periods, both of which may cause visible psychosocial impairments and disabilities requiring medical attention. Bipolar disorder may occasionally also include periods of wellness.<sup>[1,2]</sup> The BD diagnosis covers different categories such as "bipolar disorder, mixed" when the symptoms of both depression and mania are seen and when various affectations (sorrow, irritability, euphoria) are present.<sup>[3]</sup> It is very important to inform patients and their families about the disorder and treatment options and to meet their support-related needs during this period.<sup>[4]</sup> Planning nursing care for patients' needs in relation to a certain model and from a holistic perspective covering the patients and their relatives may increase the effectivity of care.

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With its wellness-focused open system characteristics, the Neuman Systems Model (NSM) acts as an important instrument covering five basic human needs: physiological, psychological, socio-cultural, developmental, and spiritual. It provides a holistic approach and guides for nursing practice.<sup>[5]</sup>

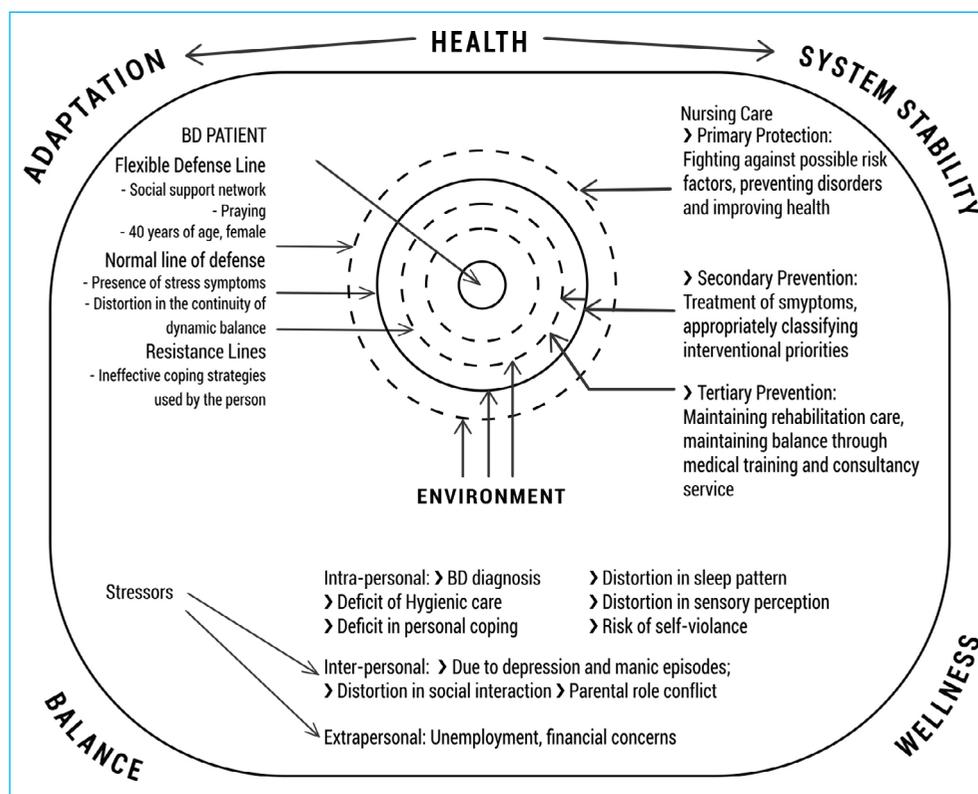
Neuman classified stressors as intra-personal, inter-personal, and extra-personal. According to Neuman, every system has a central core consisting of the basic survival factors, although they are specific in their own.<sup>[6]</sup> She also states that humans share a basic structure of vital qualities: genetic structure, changes in body temperature, weakness or healthiness of organs, possibility of emotional exhaustion, and ego. This structure is protected from stressors using flexible and normal defense lines and resistance lines as well. The normal defense line indicates the healthy state accepted as normal;<sup>[6,7]</sup> the flexible defense line, on the other hand, consists of personal variables and is present at the outermost location. Resistance lines, which protect the basic structure, get activated when stressors harm the normal defense line.<sup>[7]</sup>

The basics of NSM include the reaction of individuals or society toward the concept of stress and nurses' intervention against stress through primary, secondary, and tertiary protection measurements.<sup>[5]</sup> Primary protection is the strengthening of the flexible defense line when there is a suspicion regarding the presence of stressors. The main purpose of primary protection is to decrease the possibility that one may

encounter with the variables that may be the source of stress and to prevent any possible adaptation disorders and improve health in this regard.<sup>[8,9]</sup> Secondary protection aims to restore the patient's system to the balance position and thus cures the symptoms that emerge after stressors cross the defense line.<sup>[9]</sup> The interventions performed to improve one's ability to cope with stressors are the secondary protection initiatives. The third protection covers the consultancy services and rehabilitation programs provided to maintain stability by restoring patients' adaptation to their state and to help them cope with the stressors they may encounter. The resistance shown to the stressors is strengthened through reeducation.<sup>[8,9]</sup>

A nursing process constituted the relevant steps in Neuman's model. This period was systematized in three phases as nursing diagnosis, nursing targets, and nursing results.<sup>[7,10,11]</sup> The nursing diagnosis in the model includes the assessment of all factors affecting patients and collection of basic details in this regard. Nursing targets are inclined to perform certain changes needed to improve the deviations from healthy state. Nursing results determine the outcomes of the initiatives practiced (Fig. 1).<sup>[10,11]</sup>

The objective of this study consists of data collection in accordance with the NSM nursing steps toward the people diagnosed with BD, detection of North American Nursing Diagnosis Association (NANDA) nursing diagnosis, and planning,



**Figure 1.** Neuman Systems Model concepts regarding bipolar disorder.<sup>[14]</sup> (The figure was adapted to the state of bipolar disorder case by the authors, who considered the model as a basis in this regard).

practicing and assessing nursing initiatives. Verbal approval was received from the patient and patient's relatives.

## Materials and Method

This study was conducted in a psychiatry service at a hospital in Denizli, Turkey, between 11.10.2017 and 25.11.2017. A care plan was prepared for the patient diagnosed with BD, and nursing initiatives were performed through the NANDA nursing diagnosis based on Neuman's model. First, the patient's data were collected using interviews and observation. Then, the patient's general state was evaluated based on stressors and variables and in accordance with Neuman's model. Moreover, patient's primary problem was determined through the data, and initiatives were planned, practiced and assessed based on the works "Hemşirelik Tanıları El Kitabı"<sup>[12]</sup> and "Ruh Sağlığı ve Psikiyatri Hemşireliğinin Temelleri"<sup>[3]</sup>. The patient was interviewed twice weekly, each session lasting 45 minutes for a total of six interviews.

### Steps of Nursing Process Based on the Neuman System Model

The nursing process in the NSM was categorized as nursing diagnosis, nursing targets, and nursing results.

#### 1. Nursing Diagnosis involves:

- Defining, classifying and assessing the interaction between five patient variables (physiological, psychological, sociocultural, spiritual, and developmental);
- Defining the sources and stressors in internal, external, and inter-personal fields;
- Defining the differences in the perceptions of patients and caregivers;
- Making efforts to analyze the perceptual differences;
- Determining the deviations from wellness.

#### 2. Nursing Targets involve:

- Determining the targets that will ensure the highest level of comfort for the patient, protect the normal defense line and maintain the flexible defense line (expected patient results);
- Development of primary, secondary and tertiary protection initiatives by nurses to improve relevant factors, personal perceptions and optimal system balance (planned initiatives).

#### 3. Nursing Results involve:

- Practicing the initiatives;
- Assessing and revising the target if necessary, analyzing specific patient reactions, determining the expected results that emerged in the end, specifying the reason why some results were unachieved, and revising the target based on the needs.<sup>[5,13]</sup>

## Case Report

**Medical History:** The female patient in this study is single, 40 years old, and has a child. She divorced her husband in 2005 and lost her father in 2007. She noted that her symptoms (such as sadness, low mood, decrease in interest and desires during winter; as well as insomnia, decrease in sleeping duration, feeling energetic, nervousness, excessive increase in self-confidence, and overspending during summer) started to emerge in 2012. She twice attempted suicide, and she caused financial losses when she was working at an insurance company. She took a plane to İstanbul without informing anyone beforehand in 2012 and stayed in the boats by the dock for two days. She was arrested when she caused problems in a boat where wedding preparations were conducted, saying she was the boss. Following the assessments, she was diagnosed with BD at a hospital in İstanbul. The patient regularly visited the psychiatric polyclinic of a hospital in Denizli, Turkey, used her medications regularly and experienced no symptoms or issues for five years after the preliminary treatment lasting one and one-half months. However, due to irregular use of medications, she felt unwell; her symptoms included hyperactivity, feeling extremely energetic, having a low mood, unhappiness or loss of interest. She was admitted to hospital on 11.10.2017. Among her prescribed medications, she takes Dideral tb 40 mg 1X1/2, Seroguel XR tb 300 mg 1X2, Gyrex tb 250 mg 1X1, Rileptid tb 2 mg 1X2, Seralin tb 50 mg 1X2, and Modiwake tb 100 mg 1X1.

### STEPS OF NURSING ACCORDING TO NSM

#### PATIENT DATA AND STRESSORS ACCORDING TO NSM

##### Nursing Diagnosis Covers:

##### - Intra-Personal Factors

##### a) Physiological

*Respiratory System:* Respiratory rate: 18/min.

*Cardiovascular System:* Pulse rate: 85/min. Blood pressure: 130/80 mmHg

*Genitourinary System:* No problem was found.

*Activity-Exercise:* The patient indicated that her state of activity changed based on her episodes (depression, mania). The patient has recently stated that she is not willing to participate in the social activities conducted in the service.

*Gastrointestinal System:* Regular bowel movement (defecates once a day).

*Neurological System:* Open consciousness, oriented to place, time, and people around her, no issues related to attention or memory.

*Endocrine System:* No patient history involving the endocrine system.

*Functional State:* Inability to perform self-care due to low energy level arising from depression.

*Sleeping and Resting:* No issues related to sleeping pattern. Sleeps six to eight hours per day.

**b) Psychological**

She had no aural and tactile hallucinations (feeling of being touched by someone or flinching, hearing whispers) during her perceptual assessment, but she had grandiose delusions (e.g., she said she was the boss of the business where she worked as an employee) during the manic attacks. Her mood included depressive symptoms such as a decrease in the attention and no desire toward anything; joylessness; unhappiness; or desiring to do nothing. She also had insights. In addition, she made negative statements regarding her maternal role (saying that long periods of stay in hospitals had become an obstacle and burden affecting the care for her child, and that she cannot fulfill her maternal responsibilities).

**c) Sociocultural**

The patient has an associate degree. According to her personal data, she began to live with her mother and sister after she divorced her husband. In addition to using her pension, her mother and sister work to meet the household expenses.

**d) Developmental**

She is the single mother of a male child. She expresses her sorrow that arises from her inability to meet her son's needs: "He goes to school while I am here. I just cannot take care of him."

**e) Spiritual**

She stated that she often prays to go home.

**- Inter-Personal Factors**

She has a mother, son, and sister. Her family supports her, instead of leaving her by herself; they come to visit her as do her relatives. Due to depression and manic episodes, she faces problems in communicating with other patients and medical care staff personnel, which distorts her relationship with the people around her.

**- Extra-Personal Factors**

Her divorce from her husband, her father's passing, her mother's need of staying with her, and her desire to find a job for a better financial status and to meet her son's needs were determined as the external stressors.

**Stressors Perceived by the Patient Based on NSM**

The patient stated that her most important problems are the presence of aural and tactile hallucinations and the stress arising from these hallucinations. She also noted that she was a better mother and could fulfill her maternal responsibilities before she had BD, but that now she cannot care her son as much as she wishes. She asserted that her condition will not

recover totally, and that she can cope with the disease by staying at a hospital when she feels unwell and resting at home only when she feels normal. Her divorce case and her father's passing were her worst experiences, weakening her psychological state and provoking her against life. She said she wants to have a job and to reach a condition where she can care for her son. Her weakest characteristics, in her opinion, were a quick temper, inability to achieve targets, and being unemployed. She expressed that she goes outdoors to feel better when she is under stress. She said she knows the symptoms of her disease and visits and stays at hospital when she feels unwell. She added that her family feels sorrowful toward her about her condition but supports her constantly and that their relationship is very strong, resulting in a love-based tie among them. Her opinion of the medical staff was as follows: "They do what they can and try to help me, talking to me directly. I know that my condition will not get better, but I would be happier if they explain why they amend my medications when they do so."

**Stressors Perceived by Nurses Based on NSM**

The patient's treatment in the psychiatric service increased her depressive mood and stress. As a result of the distortion in conscious functions, she suffered from stress and fails to cope with it. She wore clothes suiting the seasonal conditions and age-related stereotypes but there were stains on these clothes. Moreover, her hair looked messy and greasy, her teeth were stained, and she had foul breath, indicating insufficient self-care. She spent most of her time in her room and avoided communication with other patients and medical staff unless it was necessary. There was a decrease in her interests and desires; she suffered from joylessness and unhappiness and desired to do nothing. A low energy level caused her to be reluctant to participate in social activities.

The nurse reported that the greatest stressor perceived by the patient was the patient's expression that she will not recover totally and that she fell apart from her son and family due to this condition. Moreover, she noted that her divorce, her father's passing, and the condition-related problems affected her maternal role among the other negative stressors impacting her health resulted in insufficient care for her son and her suffering from depressive moods.

The nursing diagnoses specified for this patient include:

- distortion in sensory perception;
- insufficiency in self-coping skills;
- decrease in self-respect;
- deficiency in self-cleaning/hygienic care;
- conflict between parental/social roles;
- risk of self-violence;
- distortion in social interactions.

## Assessment of Nursing Diagnoses Based on NSM Steps and Patient Data

### 1) Distortion in Sensory Perception Based on the Distortion of the Ability to Assess the Reality

#### Expected Patient Results

- Patients will not talk to themselves.
- Patients will ask for help when their stress or concerns increase or hallucinations begin.
- Patients will use the methods they learned to manage their stress and concerns.
- Patients will be able to assess the stimulants in a manner suiting the reality.
- Patients will take part in occupational activities.

#### Planned Initiatives (Secondary and Tertiary Protection)

- Hallucinatory symptoms must be observed to prevent patients from harming themselves or others.
- Patients are not physically contacted any more than is necessary. Patients are informed beforehand when physical contact is necessary, in certain cases such as treatments.
- All stimulants, including the noise from other rooms (such as the television audio from the adjacent areas), are noticed by the patient. The objective is to reduce the stimulants.
- The noise and light of the environment where the patients stay is reduced, and the noises and tactile hallucination patients hear and feel are explained. Patients are encouraged to share how they perceived the noises and tactile hallucinations. Efforts are made to reduce patients' concerns and fears, with the health personnel stating that these noises and tactile hallucinations are not real and that they are safe.
- The content of these hallucinations is examined without agreeing that they are present ("I do not hear any noises... What do you hear? There is nobody but me here").
- Patients are oriented to people who will come into contact with them, place and time (They are told about the nurse and informed that they are at the hospital and told about the current date).
- Concrete, verbal communication is established. Estimates, sarcastic remarks, and abstract ideas are avoided.
- As there is a relationship between the increase of concerns and emergence of hallucination, patients are assisted in coping with these by being shown methods of terminating these ideas and directing their attention to something else (e.g., listening to music, watching television, exercising or participating in occupational activities) when they have negative feelings about their condition.
- Patients are encouraged to direct their attention to the actions in their surroundings instead of their hallucinations.
- They are approached in a specific manner to ensure they accept their condition, which will facilitate the process of sharing hallucinations with the nurse. For that purpose, they are told to take their time they need to express them-

selves. Moreover, their ideas and feelings are interpreted, and they are asked about what their statements mean. The target is to clarify the unclear expressions. Patients are encouraged to achieve realistic expectations by being introduced to simple and achievable activities (drawing, painting, bead work or mandala).

### Nursing Results

Environmental planning was performed for the patient who was observed on the days of implementation. She was informed about the diagnosis of distortion in sensory perception. The relationship between concerns, stress, and hallucination was explained. The importance of verbally indicating concerns was mentioned. Methods to be used when she had hallucinations were explained, such as terminating these concerning ideas and directing her attention to something else (e.g., listening to music, watching television, exercising or participating in occupational activities).

The patient stated that she tried the practices regarding the distortion in sensory perception, that she listened to music and watched television when she heard noises and experienced tactile hallucinations, that she directed her attention to her environment but still heard whispers, and that she felt somebody was breathing on her neck and touched her. The diagnosis was examined during six interviews. The problem still exists.

### 2) Insufficiency in Self-Coping Skills Based on Negative Mood

#### Expected Patient Results

- Patients will have positive statements about themselves.
- They will state that they know about their personal capabilities.
- They will mention which coping methods have been ineffective.
- They will implement at least one of the effective coping methods.

#### Planned initiatives (Primary, Secondary and Tertiary Protection)

- The methods patients used to cope with stressful situations are assessed and appropriate ones are recommended (e.g., praying, supporting patients' listening to music, and ensuring they avoid actions that may harm them).
- Efforts are made to ensure patients discover that they use ineffective coping methods (using anger in an ineffective manner, performing self-harming activities, and having negative feelings about the self).
- Positive coping methods such as taking a deep breath and performing relaxation activities, taking problem solving steps, and solving problems by discussion is mentioned.
- During the informational stage, the patient's mood and physical state is evaluated, and the appropriate timing is selected.

- Patients are encouraged to express their moods and ideas, and an interview is planned for that purpose.
- Implementation of stress-relieving activities is supported. Patients are encouraged to perform an exercise program and to take walks.
- The focus will be on what could or can be done instead of what was not done.
- Patients are told that their condition is really challenging, and they are supported in having positive feelings rather than negative ideas by confirming that they need to have a more hopeful and realist approach when they feel unwell. Interviews and practices are conducted from this point of view.
- Patients' strong and weak characteristics are assessed, and their strong side is emphasized.
- The social supports patients have established are used, and the same coping methods are mentioned to patients' relatives to ensure effective domestic cooperation.
- Failing to perform self-care and its impact on feeling well is stressed. Patients are encouraged to perform self-care.
- Their attention is directed to the points where they are successful and feel good, and what they can do. They are asked to record in writing what they do that makes them feel good and what is done successfully by them for a week.
- They are encouraged to participate in group activities such as occupational actions, sports activities, or morning meetings.
- They are informed about what they can do by themselves in the clinic or at home.
- They are provided feedback about what they did in the clinic.
- They are informed about stress management to protect themselves and recommended to perform the relevant practices for that purpose.

### **Nursing Results**

The patient was interviewed concerning her methods of coping with her illness. The topic focused on the stressors in her life and the ineffective coping methods she had been using against them. The methods that are effective in stress management were mentioned.

The patient noted that she had more a clearer understanding of her problems in the early weeks after performing the practices related to this nursing diagnosis; that she managed to express her ideas and feelings better as time passed; that she felt better and stronger; and that she participated in the activities in the service. She took part in the occupational activities and did some painting. Her family visited her more frequently. Her diagnosis was examined during four interviews.

### **3) Decrease in Self-Esteem Based on Negative Mood**

#### *Expected Patient Results*

- Patients will perform self-care.
- They will not perform self-harming activities.
- They will contact their friends and medical staff in the clinic.
- They will not have negative statements about the self.
- They will have at least one positive statement about themselves.

#### *Planned initiatives (Secondary and Tertiary Protection)*

- Patients' self-thoughts and feelings are examined.
- They are approached in a manner to ensure they accept the condition, and time is spared for them.
- Their positive and negative aspects are talked together with them.
- The impact of negative ideas, feelings, and attitudes on them is assessed.

### **Nursing Results**

Interviews were conducted to explore the patient's ideas. Her self-evaluation of her positive and negative characteristics was reviewed. The patient had more difficulty expressing her positive characteristics as compared with her negative characteristics. A separate interview on ideas, feelings, and attitudes was conducted. She was provided feedback about what she did in the clinic. What could be done following the discharge was mentioned.

Following the practices involved with this nursing diagnosis, patient stated that she had difficulties in revealing what made her feel good in the following weeks. As weeks passed, she noted that she was able to express her feelings and ideas better, that she began to discover her positive sides, and that she participated in the activities conducted in the service. The diagnosis was examined during six interviews.

### **4) Deficit in Cleaning/Hygienic Care Based on Low Energy Level and Negative Mood**

#### *Expected Patient Results*

- Patients will shower at least twice weekly.
- They will wear clean and suitable clothes.
- They will state that they brush their teeth twice daily (morning and evening).

#### *Planned Initiatives (Primary and Secondary Protection)*

- Factors causing self-care deficiencies are determined.
- Patients' participation in their own care is ensured. They are encouraged to be both independent and participative, and importance of doing so is mentioned.
- A consistent dressing habit is created. Patients are told to take their pajamas off and wear comfortable clothes, and to get into their pajamas before sleep.

- They are assisted in selecting their clothes beforehand.
- They are told to brush their teeth after eating and to tie their hair back as a routine.
- They are recommended to take a shower at least twice weekly (evening hours can be preferred as taking a shower then can help sleep).
- For every care activity they perform on their own, they are provided positive feedback.
- They are told that they can receive help from their companions or clinic staff when they cannot do these activities by themselves.

### **Nursing Results**

The patient was supported in establishing better self-care. As a result, she took showers. She was assisted in selecting clothes and organizing her room. She was provided a toothbrush and toothpaste. She had to be reminded occasionally to change her clothes.

She stated that she had taken showers and brushed her teeth regularly in the last few weeks. It was observed that patient's hair was in better condition compared with the early weeks, that her room was tidier, and that her teeth and clothes were cleaner and well-cared for as a result of assistance from others. The diagnosis was examined during six interviews.

### **5) Parenthood-Role Conflict Based on Attributing Care Responsibility to a Single Parent**

#### *Expected Patient Results*

- Patients will verbally express their ideas about their disease and hospitalization period.
- They will make statements accepting their roles.
- Negative statements regarding their maternal role will not be made.

#### *Planned Initiatives (Primary Protection)*

- What is effective in the changes regarding patients' role (divorce, hospitalization, staying at mothers' house, and other occurrences) is told to patients. Patients are encouraged to express their ideas.
- They are allowed to share their disappointments/loss of expectations. In addition, their fears and concerns regarding their future are lessened, and they are told they can go home following the treatment.
- Patients' parenthood-related responsibilities are reviewed, and cooperation is planned to maintain the responsibilities they wish to fulfill.
- Patients are encouraged to share child-raising difficulties arising from being the only parent and usual or recent stressors impacting them.
- Support systems are assessed (family, friends) and support from other family members is obtained.

- Efforts are made to ensure they gain habits they love to perform, and they are told to list their expectations and targets regarding their life.

### **Nursing Results**

An interview regarding the maternal role and hospital stays was performed with the patient. The importance of support from family and friends was stressed.

The patient noted that she became ill following the nursing initiatives on sufficient parenthood, that she needed to stay at hospital to recover, and that her son could be cared by her mother and sister. However, she also stated that she missed her son when hospitalized for too long, and that this process could be a burden for her family. The diagnosis was examined during four interviews.

### **6) Risk of Self-Violence Based on Previous Suicide Attempts**

#### *Expected Patient Results*

- They will not perform self-harming activities.
- They will mention which coping methods are effective.
- They will perform at least one of the effective coping methods.
- They will have positive statement regarding life.

#### *Planned Initiatives (Primary and Secondary Protection)*

- Patients' source of hope and social support is assessed with them.
- They are encouraged to express their positive sides instead of statements that they are valueless.
- They are asked whether they have any plans to commit suicide.
- A verbal agreement is made with them to ensure they will not commit suicide. A feeling of trust is formed stating that they can contact the medical staff when they feel that they want to commit suicide.
- Patients are observed at irregular intervals.
- They are not left alone as long as possible, and their locations are observed.
- Although patients are in a therapeutic environment in the psychiatric clinic, to achieve continuity of a safe environment, efforts are made to ensure detrimental objects are not in place.
- Patients are observed to ensure they swallow medications prescribed for oral treatment.
- The patient's mood is observed and in case of any changes, a small meeting is held, and the team is notified.
- Patients are observed regarding self-harming symptoms such as social isolation, self-care deficit, and verbal expression of death.
- Information regarding patients' home lives and relationships is obtained from their relatives. Accordingly, patients'

relatives or those who are important for the patient are informed about the condition and what they should be careful about.

### **Nursing Results**

Organization of the patient's environment was observed regarding the possibility for self-violence; she was often observed at irregular intervals. An interview was held with the patient concerning this issue. Her family was separately informed about the condition and the points they should observe.

Following the diagnosis-related nursing initiatives, the patient's answer to the question regarding committing suicide was: "I have to live. I cannot leave my son behind. I should fulfill my responsibilities." Stating that she does not plan to commit suicide, the patient was observed regarding her mood. The diagnosis was examined during six interviews.

### **7) Distortion in Social Interaction Based on the Decrease in Self-Esteem During a Depressive Attack and Based on the Feelings of Being Valueless and Impulsive Behaviors During a Manic Attack**

#### *Expected Patient Results*

- Patients will be able to define the behaviors that distort inter-personal communication.
- Patients will establish positive communications with other patients and medical staff in the clinic.
- Patients will attend intra-clinic activities.

#### *Planned Initiatives (Secondary and Tertiary Protection)*

- A personal and supportive relationship is established with the patients.
- Patients are first directed to one-on-one relationship and then to group relationships to have better social interaction skills.
- Patients are assigned the duty of improving their relationship with other patients in the clinic, and efforts are made to ensure these activities are organized in view of the possibility of a manic or depressive attack.
- An environment with limited number of stimulants is provided in case of manic attacks, and limitations are imposed on uncontrollable manipulative behaviors (such as neglecting the service rules). This is not discussed with the patients. Because this sort of behavior is not condoned, patients are kindly notified that certain of their acts are not acceptable.
- A collective participation to group activities such as occupational actions, sports activities, or morning meetings is ensured.
- Patients are encouraged to try new social behaviors (drawing, painting, bead work, or mandala painting in the multi-purpose room along with other patients); they are provided positive feedback.

### **Nursing Results**

Considering the changing attacks, the case-study patient was gradually directed to intra-clinic practices such as morning meeting or occupational or sports activities. She was encouraged to visit the multi-purpose room, but she left the room within a couple of minutes after arriving. Relevant initiatives were maintained, and changes were observed in the patient. As a result, the patient spent less time in her room; she chatted with other patients in multi-purpose room; she participated in activity hours; and she performed activities. She chatted with her family when they visited her. The diagnosis was examined during six interviews.

### **Discussion**

People with BD are generally single or divorced people who have had problems in their previous relationships.<sup>[15]</sup> The patient in the present case study stated that she had inter-personal and socio-economic problems due to her condition, and that she ended her marriage because of these problems. Mood disorders are the most common psychiatric disorders associated with committing suicide: the prevalence of BP patients who attempt to commit suicide at least once ranges from 25% to 50%.<sup>[16]</sup> The data from another study indicate that suicidal behaviors might be significantly related to BP.<sup>[17]</sup> The patient in this case study attempted to commit suicide twice, which is in line with published data.

The NSM has been adapted for and implemented in various particular fields of nursing care practice.<sup>[18-22]</sup> The present study demonstrates that using the NSM in nursing care facilitated the treatment process and was effective in holistically assessing the patient's problems.

The study conducted by Şengül, İnan, and Üstün<sup>[21]</sup> (2014) to examine the topic of breast cancer found the distress, anxiety and depression scale scores of its case as high. A psychoeducational activity was performed to support the patient in the post-treatment period using NSM in the aforementioned study, and NSM was regarded as a person-centric, extensive, and ideal model in reviewing the stressors and variables of the patient group. In the present study, a holistic approach was employed, observing the patient and her family members coping with intra-, inter-, and extra-personal stressors. Thus, the NSM model was found to be effective against the psychiatric symptoms and to have decreased the patient's problems.

Sources indicate that people with chronic disease have dominant thoughts of being a burden for others.<sup>[18]</sup> Similarly, the patient in our study stated that she knew she had to stay in hospital for her clinic condition to recover, that her son was well cared for by her mother and sister, that she missed his son owing to the lengthy stay period, and that this period might be a burden for her family.

Güner and Kavlak<sup>[20]</sup> (2015) stated that their patient was able to perform her self-care activities with minimum level of assistance and through the initiatives conducted to ensure that

their patient fulfill his/her self-care responsibilities independently and show participation at the maximum level. Similarly, the patient in the present study actively participated in relevant activities to meet her self-care needs, resulting in successful alleviation of her condition. Studies regarding the NSM model reflect the importance of encouraging patients to meet their needs themselves. The support for the patients is effective in helping them regain their self-confidence and to increase their self-value.<sup>[19,20]</sup> The primary, secondary, and tertiary protection initiatives performed for the patient in this case study helped the patient achieve her optimal health status, reestablish her balance, and achieve wellness.

## Conclusion

Thanks to the training they receive, psychiatric nurses have an important place in determining the psychosocial care needs of patients and their families and planning and practicing the appropriate initiatives.<sup>[21]</sup> The objective of this study was to provide appropriate nursing diagnoses and to meet the patient's needs holistically and effectively following the nursing initiatives established beforehand by the NSM. Increasing the knowledge of the BD patient regarding the steps followed in NSM nursing care and performing new model-based studies while assessing more patients is important.

## Limitations

As clinical practice was performed twice a week, the inability to perform nursing initiatives by the same person for the patient can be a limitation of the study.

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## References

1. Velentza O, Grampsa E, Basiliadi E. Psychoeducational interventions in bipolar disorder. *American Journal of Nursing Science* 2018;7:51–6.
2. Zengin Eroğlu M, Özpooyraz N. Long-term treatment in bipolar disorder. *Current Approaches In Psychiatry* 2010;2:206–36.
3. Townsend CM. Ruh sağlığı ve psikiyatri hemşireliğinin temelleri kanıta dayalı uygulama bakım kavramları. (Özcan CT, Gürhan N, Translation Editor). 6th ed. Ankara: Akademisyen Tıp Kitabevi; 2016. p. 428–60.
4. Kahn DA, Ross R, Printz DJ, Sachs GS. Treatment of Bipolar Disorder: A Guide for Patients and Families. *A Postgraduate Medicine Special Report* 2000;97–103.
5. Ayaz Alkaya S. Betty neuman: Sistemler modeli. Karadağ A, Çalışkan N, Baykara ZG. Hemşirelik teorileri ve modelleri. İstanbul: Akademi Basın ve Yayıncılık; 2017. s. 444-463.
6. Haggart M. A critical analysis of neuman's systems model in relation to public health nursing. *Journal of Advanced Nursing* 1993;18:1917–22.
7. Pektekin Ç. Hemşirelik Felsefesi Kuramlar-Bakım Modelleri ve Politik Yaklaşımlar. 1.baskı. İstanbul: İstanbul Medikal Sağlık ve Yayıncılık; 2013.
8. Veliöğlu P. Hemşirelikte kavram ve kuramlar. 2nd ed. İstanbul: Akademi Basın ve Yayıncılık; 2012.
9. Jukes M, Spencer P. Models for practice: Neuman's Systems Model. In: Jukes M, Aldridge J, editor. *Person - centred practices, a holistic and integrated approach*. London: Quay Books; 2007. p. 33–50.
10. George JB. Betty Neuman. In: George BJ, editor. *Nursing Theories: The Base for Professional Nursing Practice*. Norwalk: Appleton&Lange; 1995. p. 281–300.
11. Aylward DP. Betty Neuman: The neuman systems model and global applications. In: Parker ME, editor. *Nursing theories and nursing practice*. Philadelphia: FA Davis Company; 2001. p. 329–41.
12. Carpenito-Moyet LJ. Hemşirelik Tanıları El Kitabı. (Erdemir F, Translation Editor). Ankara: Nobel Tıp Kitapevleri; 2005.
13. Fawcett J. *Contemporary Nursing Knowledge Analysis and Evaluation of Nursing Models and Theories*. 2nd ed. Philadelphia: F.A. Davis Company; 2005.
14. Ross MM, Bourbonnais FF. The Betty Neuman Systems Model in nursing practice: a case study approach. *J Adv Nurs* 1985;10:199–207.
15. Arguvanlı S. Bipolar bozukluğu Olan Bireyler ve Aileleri. *Türkiye Klinikleri Journal of Psychiatric Nursing-Special Topics* 2018;4:48–53.
16. Jamison KR. Suicide and bipolar disorder. *J Clin Psychiatry* 2000;61:47–51.
17. Karamustafaloğlu O, Özçelik B, Bakım B, Cengiz Ceylan Y, Gökşan Yavuz B, Güven T, et al. İntiharı öngörebilecek bir araç: Hastane anksiyete ve depresyon ölçeği. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences* 2010;23:151–7.
18. Uysal N, Khorshid L, Eşer İ. A case study according to the neuman systems model. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi* 2009;12:74–81.
19. Mert H, Demir Barutçu C. Neuman sistemler modelinin kalp yetersizliğinde kullanımı. *Cumhuriyet Hemşirelik Dergisi* 2013;2:64–70.
20. Güner Ö, Kavlak O. Neuman sistemler modeline göre endometriyum kanserli hastanın bakımı: Olgu sunumu. *Balıkesir Sağlık Bilimleri Dergisi* 2015;4:94–102.
21. Şengün İnan F, Üstün B. Evde Psikososyal Bakım Örneği: Meme Kanserinde Tedavi Sonrası Dönemde Psikoeğitim Uygulaması. *DEUHYO ED* 2014;7:52–8.
22. Ahmadi Z, Sadeghi T. Application of the Betty Neuman systems model in the nursing care of patients/clients with multiple sclerosis. *Mult Scler J Exp Transl Clin* 2017;3:2055217317726798.