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## Psychiatric Nursing Care Process with NANDA, NIC, and NOC Classifications: Case Example

### NANDA, NIC ve NOC Sınıflandırmaları ile Psikiyatri Hemşireliği Bakım Süreci: Vaka Örneği

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#### ABSTRACT

Nursing care plans present a systematic way and standard language for nurses. Standardized care terminology and evaluations are important in providing a common language globally and showing nursing care outcomes. The North American Nursing Diagnosis Association Taxonomy, Nursing Interventions Classification, and Nursing Outcomes Classification form the structure of the nursing care plans. This standardized nursing process language provides a system that supports individualized care, allowing us to visualize and formulate a nursing process. The aim of this study is to present an example of the use of the North American Nursing Diagnosis Association Taxonomy, Nursing Interventions Classification, and Nursing Outcomes Classification system in the care process of a 42-year-old individual with a diagnosis of bipolar disorder.

**Keywords:** NANDA; NIC; NOC; nursing; psychiatric care.

#### Öz

Hemşirelik bakım planları, hemşireler için sistematik bir yol ve standart bir dil sunar. Standardize edilmiş bakım terminolojisi ve değerlendirmeler, küresel olarak ortak dilin sağlanmasında ve hemşirelik bakım sonuçlarının gösterilmesinde önemlidir. Kuzey Amerika Hemşirelik Tanıları Birliği Taksonomisi, Hemşirelik Girişimleri Sınıflaması ve Hemşirelik Çıktıları Sınıflama, hemşirelik bakım planlarının yapısını oluşturur. Bu standartlaştırılmış hemşirelik süreci dili, bireyselleştirilmiş bakımı destekleyen hemşirelik sürecini görselleştirmemizi ve formüle etmemizi sağlayan bir sistem sağlar. Bu çalışma ile 42 yaşında bipolar bozukluk tanısı ile talip edilen bireyin bakım sürecinde Kuzey Amerika Hemşirelik Tanıları Birliği Taksonomisi, Hemşirelik Girişimleri Sınıflaması ve Hemşirelik Sonuçları Sınıflama sisteminin kullanımına ilişkin bir örnek sunmak amaçlanmıştır.

**Anahtar Kelimeler:** Hemşirelik; NANDA; NIC; NOC; psikiyatrik bakım.



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## Introduction

Standardized care terminology is essential in terms of standardizing and evaluating nursing care (Lundberg et al., 2008; Rutherford, 2008; Westra, Delaney, Konicek & Keenan, 2008). Nursing care is a process that begins with assessing the needs of patients, diagnosing problems, and setting goals. After that, nurses determine what to do or implement to achieve the goals, and finally, they reassess the patient's condition to evaluate whether the outcomes are achieved or not. In other words, nursing diagnoses, interventions, and outcomes should be addressed throughout the nursing care process; only in this way can optimal health be provided for patients (Von Krogh, Dale & Näden, 2005; Potter, Perry, Stockert & Hall, 2016). In this way, the nurse can follow the patient's general condition, the course of the disease, and the recovery process and may notice early, review the interventions made, and monitor and increase the effectiveness of nursing care (Moorhead, et al., 2021).

The North American Nursing Diagnosis Association Taxonomy (NANDA), Nursing Interventions Classification (NIC) and Nursing Outcomes Classification (NOC) systems commonly take place in the nursing curriculums. As the first established and old one, the NANDA diagnosis classification system has been used widely today to be able to determine and name nursing problems by nurses (Müller-Staub, Needham, Odenbreit, Lavin & Van Achterberg, 2007; Herdman & Kamitsuru, 2017). However, the usage of NIC and NOC is relatively limited compared with NANDA. After assigning a nursing diagnosis nurses should clarify the desired outcomes in the second step and then they need to plan how to achieve those outcomes by implementing which nursing intervention. The outcomes can be named using the NOC system (Moorhead, Johnson, Maas & Swanson, 2018). To select the interventions and treatments that will enable the desired or determined results in nursing care, the NIC be used (Butcher, Bulechek, Dochterman & Wagner, 2018). Strudwick and Hardiker (2016) reported that the increase in the use of taxonomic classification in nursing care also supports nursing knowledge.

Frauenfelder, Van Achterberg, Needham, and Müller Staub (2016) stated that most of the nurses in psychiatric units received information and courses on nursing diagnoses during their education, however, they do not use it in daily care. Supporting that, a randomized controlled study by Saatchi and Larjani (2019), reported that the utilization rates of the NNN trio system were low when planning the nursing care of nurses. Nurses commonly use the NANDA diagnoses; however, usually they don't use the NIC, especially the NOC system. Müller-Staub (2009) suggests that the way to choose the appropriate nursing activities to reach the desired NOC indicators is to select the diagnosis of proper nursing. However, Saatchi and Larjani (2019), discussed that one of the reasons for the lower use was a lack of information about classification and taxonomy use among nurses. Even though this is a common problem in nursing, nurses do not use the NANDA, NIC, NOC (NNN) system widely in the psychiatric care environment. There needs to be more research on the NNN system's application to psychiatric nursing practice. Because of that, this case study is thought to contribute to the knowledge and practice of psychiatric nursing. Additionally, besides providing standardization and common language, using the NNN system will contribute to developing evidence-based practices by giving us a quantitative eval-

uation opportunity for nursing outcomes (Zauszniewski & Suresky, 2004; Saatchi & Larjani, 2019).

The NANDA, NIC, and NOC trio are parts of a puzzle. These components will only be meaningful if they are appropriately included and connected to each other, in the nursing process. In this respect, it will be more meaningful to consider NNN as pieces that make up the whole rather than seeing sequential or separate work. One of the main aspects of nursing care in psychiatric clinics is patient safety due to the presence of violent behavior in patients with psychiatric disorders. For this reason, the risk of harming oneself and one's environment can be addressed first in the diagnostic system (Saatchi & Larjani, 2019). Another important problem in bipolar disorder is sleep disturbance and which is associated with impaired functioning. Sleep disturbance may prevent adequate response to treatment (Kaplan, 2020). At the same time, sleep difficulties are frequently reported in practice and are part of the diagnostic criteria for depression and bipolar disorder (Comsa, Anderson, Sharma, Yadav & Watson, 2022). These important problem areas were also taken into consideration when determining the diagnostic criteria of our case.

## Aim

This case study's aim is to provide an example of the use of the NNN system in individual with mental illness.

## Case

A 42-year-old man with bipolar disorder was hospitalized (B.A.). He was a primary school graduate and had never worked before and was accompanied by his family. The patient has never married and lives off his father's pension. He smokes cigarettes one pack a day and does not use alcohol/drugs. He had been diagnosed with bipolar I disorder at the age of 20. According to the patient's statements and previous records, the patient who had applied to the outpatient service with complaints of self-talk, increased movements, and increased speech after military service (20 years ago) had been admitted to the acute care inpatient service. There was no psychiatric history in his family, and he has no other chronic disease. There have been 16 hospitalizations since the diagnosis, including the most recent.

The symptoms, seen in his last hospitalization were talking in front of the television as if talking to someone, consuming only closed-pack foods, being constantly on the alert since he believed that those around her would harm him, and sleeping only 3 - 4 hours a day. During the recent hospitalization, the patient was not sleeping at all; even 1 - 2 hours of sleep was sufficient for him, and he said he felt good. In addition, before the hospitalization, the patient did not use his prescribed medications and refused to go to control examinations. No abnormality was found in the physical examination and inspection. The patient's place-time-person orientation was full. It was noted in the patient's file that he had persecutory delusions and a flight of ideas. His mood was euphoric and emotionally inappropriate. There was no hallucination.

During the B.A.'s hospitalization, the notes taken by the physician and nurse on some days were summarized as follows: In the first days, B.A. said that he was not sick, and because of that, he did not take his medication and did not go to the check-ups. At the same

time, he said he did not need to sleep, even if he didn't sleep. The patient stated that there were some patients who wanted to harm him in the unit. And added that if someone attacked him or the staff, he could protect them and take the necessary measures when he felt a risk. In addition, he said that he could not take risks eating the meals since they were served in open pots and that he did not want to take risks this way. He stated that he consumed bread and water only because the bread and water were packed, and the poisoned substances may be added to other foods. Five days after his hospitalization, B.A. stated that he generally knew everyone in the clinic and that no one had harmed him. He said that he had taken the drugs given to him by the nurses, but he still had prejudices about whether or not to use these drugs and that he should watch the situation a little more.

### Nursing Care Plan of B.A. with NANDA, NIC, and NOC

Within the framework of the B.A.'s history and the staff's observations, the nursing diagnosis was determined by major and minor indicators in the NANDA diagnosing system. Secondly, the most appropriate outcomes for the patient from "the adaptation area" in NOC classification were targeted and preferred. In the last step, according to the outcomes related interventions were selected from the NIC classification list.

### Nursing Diagnosis 1: Risk for Other-Directed Violence

Since the patient had some delusional thoughts about being harmed in the first days of his hospitalization, we decided this nursing diagnosis should be the first issue in this situation. This diagnosis "Risk for self/other-directed violence" is under the security/protection area of the diagnosis area in NANDA (domain 11), Violence (class 3). As Slemmon, Jenkins & Bungay (2017) indicated, safety and security in

psychiatric units are considered at the top of the value order beyond an assessment or target.

The fact that the indicators evaluated at a score of two in the beginning and have increased to four and five showed us a decrease in current skepticism within seven days and a decrease in the risk of damaging the environment. In this situation, the patient continued to be observed at the least restrictive level, and no extra intervention was made (Table 1). If the scores were the opposite situation, we would have to change the observation level of the individual more closely regarding harmful behaviors against his environment.

### Nursing Diagnosis 2: Disturbed Sleep Pattern

When it comes to psychiatric disorders, sleep disorders or sleep irregularities can be both a cause and a result of some symptoms (Schrimpf et al., 2015; Freeman, Sheaves, Waite, Harvey & Harrison, 2020). Thus, considering the effect of sleep on emotion and mood (Altena et al., 2016), and when the general history of the patient is examined carefully, it is thought that the diagnosis of disturbed sleep pattern is another essential diagnosis that will affect the patient's recovery process.

This NANDA diagnosis is located in the class of the activity resting area (domain 4), sleep / rest (class 1). This nursing diagnosis represents a group of patients who have a role in qualitative or quantitative problems in the resting process or have undergone a change that affects or prevents the preferred lifestyle (Herdman & Kamitsuru, 2017). The NIC interventions selected from sleep enhancement section. Seven NOC indicators had been selected for this patient and in seven days scores of NOC evaluation showed a recovery in selected sleep areas (Table 2).

**Table 1: Nursing Diagnosis 1- Risk for other/directed Violence (Domain 11, Class 3)**

NANDA	NIC	NOC		
Domain 11: Safety/ protection	Impulse control training	Distorted Thought Self-Control		
Definition	Interventions	Outcomes	1st Evaluation* (24.03.2022)	2nd Evaluation* (31.03.2022)
The situation in which there is a risk that the individual can show behaviors that may be physically, emotionally, or sexually harmful to other people. Suspicious behaviors which indicate that a person may harm others physically, emotionally, and/or sexually.	Assist the patient to identify the problem or situation that requires thoughtful action.	Recognizes hallucinations or delusions are occurring.	2	4
	Teach the patient to cue self to "stop and think" before acting impulsively.	Avoid attending to hallucinations or delusions	2	4
	Teach the patient to consider his own thoughts and feelings before acting impulsively.	Avoids responding to hallucinations or delusions	2	5
		Observes the frequency of hallucinations or delusions	2	4
		Describes the content of hallucinations or delusions	2	4
		Assist patient to identify courses of possible action and their costs and benefits.	Reports the decrease in hallucinations or delusion	2
<b>Associated factors:</b> Psychotic disorders, Ineffective impulse control	Assist the patient to choose the most beneficial course of action			

\*1: Never demonstrated; 2: Rarely demonstrated; 3: Sometimes demonstrated; 4: Often demonstrated; 5: Consistently demonstrated.

**Table 2: Nursing Diagnosis 2- Disturbed sleep pattern (Domain 4, Class 1)**

<b>NANDA Domain 4: Activity/Rest</b>	<b>NIC Sleep enhancement</b>	<b>NOC Sleep</b>		
<b>Definition</b>	<b>Interventions</b>	<b>Outcomes</b>	<b>1st Evaluation* (24.03.2022)</b>	<b>2nd Evaluation* (31.03.2022)</b>
Time-limited awakenings due to external factors.	Determine the patient's sleep/activity pattern.	Observed hours of sleep	2	4
Associated factors: Difficulty maintaining sleep state, Nonrestorative sleep-wake cycle	Approximate patient's regular sleep/wake cycle in planning care.	Sleep pattern	2	4
	Explain the importance of adequate sleep during pregnancy, illness, psychosocial stress, etc.	Sleep Quality	3	5
	Determine the effects of the patient's medications on sleep pattern.	Sleep routine	2	4
	Arrange the environment (e.g., light, noise, temperature, mattress, and bed) to promote sleep.	Sleeping through the night consistently	2	5
	Regulate environmental stimuli to maintain normal day-night cycles.	Feelings of rejuvenation after sleep	2	5
	Discuss sleep-enhancing techniques with the patient and family.	Awake at appropriate times	2	5

\*1 point: Severely impaired; 2 points: Majorly impaired; 3 points: Moderately impaired; 4 points: Slightly impaired; 5 points: No problem.

**Table 3: Nursing Diagnosis: Ineffective Health Self-Management (Domain 1, Class 2)**

<b>NANDA Domain 1: Health Promotion</b>	<b>NIC Health system guidance</b>	<b>NOC Participation in Health Care Decisions</b>			
<b>Definition</b>	<b>Interventions</b>	<b>Outcomes</b>	<b>1st Evaluation* (24.03.2022)</b>	<b>2nd Evaluation* (31.03.2022)</b>	
Unsatisfactory management of symptoms, treatment regimen, physical, psychosocial, and spiritual consequences, and lifestyle changes inherent in living with a chronic condition.  <b>Associated factors:</b> Limited ability to perform aspects of the treatment regimen, Individuals with limited decision-making experience	Explain the immediate health care system, how it works, and what the patient/family can expect.	Identifies health outcome priorities	3	4	
	Instruct patient on what type of services to expect from each type of health care provider.	Uses problem-solving techniques to achieve desired outcomes	3	4	
	Advise usage of the second opinion.	Identifies available support for achieving desired outcomes	3	4	
	Encourage the patient to go to the emergency room, if appropriate.	Monitors barriers to outcome achievement	3	4	
	Identify and facilitate communication among health care providers and patient/family, appropriate.	Evaluates satisfaction with healthcare outcomes	3	4	
	Coordinate/schedule time needed by each service to deliver care, as appropriate.	Identifies the level of outcome achievement	3	3	
	Encourage the patient/family to ask questions about services and charges.				
	Assist individuals to complete forms for assistance, such as housing and financial aid, as needed.				
	Notify the patient of scheduled appointments, as appropriate.				

\*1: Never demonstrated; 2: Rarely demonstrated; 3: Sometimes demonstrated; 4: Often demonstrated; 5: Consistently demonstrated.

### Nursing Diagnosis 3: Ineffective Health Self-Management

This diagnosis is located in the class of the Health Promotion area (domain 1), Health Management (class 2). Ineffectiveness in managing its own health defines the individual's ability to improve health with changes such as lifestyle or behavior (Herdman & Kamitsuru, 2017). Bipolar Disorder (BPD) is a chronic mental illness that necessitates regular treatment and patient compliance to maintain a stable treatment plan (Savaş, Unal & Virit, 2011). Since B.A. had been suffering from this disorder for 16 years and refused to apply to the hospitals for routine checks we considered this diagnosis is more inclusive than ineffective therapeutic regimen management. Then, consistently we selected six NOC indicators from the participation in health care decisions section. B.A showed improvement in these indicators in seven days (Table 3).

### Discussion and Conclusion

In this case study, we tried to set an example of the use of the NNN system as a whole entity for the practice of psychiatric nursing. Along with using NANDA diagnoses using standardized Nursing interventions and outcome classifications may help evaluate the patient's outcomes and the goals of nursing care. In addition, making the outcome evaluations with these standard scales of NOC may support decision-making related to treatment maintenance and also discharge. This standard evaluation system may help to reduce the costs of treatments and hospitalizations. However, even if it is known that nurses have been taught about this NANDA diagnosis, NIC, and NOC system (NNN) during nursing training, this whole system could not be transferred to daily practice (Frauenfelder et al., 2016).

Although some studies indicated that nursing diagnoses and nursing interventions are used in psychiatry, they also show that there is an actual lack of information in this area (Frauenfelder, et al., 2016). Even though many flaws in the use of psychiatry have been identified (Thomé et al., 2014), facilitating NNN processes may help to improve health outcomes in psychiatric units through prevention, treatment, and recovery processes (Bulechek, Butcher, Dochterman & Wagner, 2010; Thomé, Centena, Behenck, Marini & Heldt, 2014). Psychiatric and Mental health nurses need some concrete evaluation procedures to be able to make their therapeutic effects visible. In addition, although the classification of NANDA is a language that must be used in nursing records, nursing managers working in psychiatric units have little information about the nursing diagnosis (Müller-Staub, Needham, Odenbreit, Lavin & Van Achterberg, 2007). This may result in a weakening of the supervision system for the use of nurses. However systematic nursing care can significantly improve the unhealthy psychology of patients with bipolar disorder (Carnahan and Letuchy, 2018). According to the study results of Wang and Yu (2021), systematic nursing for patients with manic episode of bipolar disorder can clearly relieve their bad mood, control their manic state and improve their self-efficacy, quality of life and treatment compliance.

The components of the NNN system cover well the nursing care provided in psychiatric units. Since NOC system presents us a Likert

assessment option, using NOC indicators (for nursing outcomes) is substantial in obtaining objective and measurable data (Thomé et al., 2014; Frauenfelder et al., 2016). In this case study, using the NNN system helped us to evaluate the patient objectively and to have information about the recovery process. We noticed the outcomes that get better and deteriorated in the patient. With the patient's scores, we were able to follow the patient's process objectively and compare these scores with our observations. The decrease in the scores for his current skepticism showed us that the risk of harm to the environment was reduced. In this case, the patient continued to be observed at the least restrictive level and no additional interventions were made. This offers the possibility of evidence-based care for existing changes. At the same time, the NNN system can be a guide for discharge as a numerical evaluation is made together with the NOC.

In addition to all these benefits, nurses use NANDA diagnosing system widely, but most nurses do not know the NIC and NOC system. The fact that the majority of nurses connected with ND during their academic training is one factor in this circumstance (Müller-Staub, et al., 2007; Frauenfelder, et al., 2016). These issues set a barrier for standardization and common language to understand each other psychiatric mental health area. Especially in psychiatric care we as nurses need more concrete evaluations to be able to provide evidence-based information. Li, Li, and Wang (2022), one of the reasons for the use of evidence-based practices among psychiatric nurses is that the results of the nurses cannot be evaluated. As a result, the use of the NNN system in psychiatric patient care may increase the quality of nursing care as well as patient safety. At the same time, as well as the systems evaluated, as well as nursing care, will be a measurable dimension. On the other hand, there were a number of difficulties before implementing the NNN system in clinics. The multi-faceted research that will reveal these difficulties will also guide problem resolution.

**Ethical Considerations:** Since this study was a case report, ethics committee approval was not obtained and informed consent was obtained from the patient.

**Author Contribution:** Study Idea (Concept) and Design – TŞT, FO; Data Collection / Literature Review – TŞT, FO; Analysis and Interpretation of Data – TŞT, FO; Preparation of the Article – TŞT, FO; Approval of the Final Version to be Published – TŞT, FO.

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