

Review

Contextual factors of the placebo effect in psychiatric care

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Abstract

Interest in studies of the use and effects of placebos in the nursing discipline has increased in the last decade. The placebo effect is the effect of the psychosocial context that accompanies any treatment and care rather than an ineffective drug or intervention administered to relax or please individuals. Contextual factors, considered as psychosocial components of nursing care, are essential for the interpretation of care perception and therapeutic interventions by both patients and healthcare professionals. Psychiatric nurses have an important role in determining placebo effects and applying therapeutic factors that contribute to the emergence of those effects in psychiatric care. The fact that psychiatric nurses provide individual-centered care by considering contextual factors such as therapeutic relationships, empathetic and compassionate communication, and the therapeutic environment increases the level of the placebo effect and impacts the therapeutic process. Nurse researchers are increasingly using usual care in their control groups rather than placebo controls in their studies since the placebo effect in care is not easy to measure. In this regard, it is important to define usual care, observe placebo effects on individuals by identifying potential problems, and include a placebo group in nursing studies. It is accordingly necessary to carry out studies on the contextual factors that increase the effects of placebos in nursing practices and psychiatric care, and to increase the awareness of nurses regarding placebo effects. Within this framework, this review was conducted to explain the issues regarding contextual factors of the placebo effect in psychiatric care and the ethical dimensions of placebo application from the perspective of psychiatric nursing.

Keywords: Nursing care; placebo effect; placebo response; psychiatric nursing.

Although the concept of placebo has existed since the beginning of the history of medicine, it continues to be studied as a complex phenomenon in clinical practice and research, it is allowed to be included in research within certain rules, as its ethical basis is debated.^[1-3] A placebo is a simulation of any therapeutic intervention, such as a drug, therapy, imaging device, or vaccine, which does not contain any pharmacological substance or therapeutic effect, but can alter the body's biochemistry.^[3,4] The placebo effect is the result of complex and different psychoneurobiological events that occur in the therapeutic encounter.^[4]

Today, placebo is used as a control arm in randomized controlled trials to determine the effect of a real pharmacological agent. Placebo controls became standardized in pharmacological studies in the 1940s and took its place in psychiatry

with psychopharmacological developments.^[5] The most interesting and fascinating aspect of the use of placebos is that they influence the therapeutic process by contributing to the satisfaction and relaxation of individuals in a wide range of medical and psychiatric disorders. Non-pharmacological practices in psychiatric care; that is, factors such as suggestion, belief, trust, expectation of well-being, person-centered approach, patient-nurse interaction, use of empathy, therapeutic setting are thought to be more effective.^[2,6]

Evidence-based studies in psychiatry have increased over the last decade to identify the psychoneurobiological processes mediating placebo effects and the contextual factors that influence them.^[7-9] According to Palese et al.,^[10] it was stated that the concept of placebo in the nursing discipline started to be visible since 1966, while nocebo effects have been included in

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the nursing literature for the last 10 years. On the other hand, Miller, and Miller,^[11] in their study with implications for nursing practice, pointed out that placebo effects have received little attention in the nursing literature. However, the results of these studies were soon reflected in the nursing discipline and nurse researchers have recently turned to identifying and examining the contextual factors that cause placebo effects.^[10,12]

Psychiatric care evolves within a person-centered and recovery-based model, providing an understanding of the evidence on the neurobiology of psychiatric disorders and psychotropic treatment and integrating it into the patient-nurse relationship. In this context, it is stated that psychiatric nursing practice is an approach consisting of the integration of "psychopathology, psychopharmacology, therapeutic patient-nurse communication and environmental management" practices.^[13] Psychiatric nurses are responsible for providing holistic and high-quality psychiatric care to protect and improve the physical and psychosocial health of individuals. Therefore, it is important for psychiatric nurses to be aware of the placebo effect and contextual factors in psychiatric care.^[12] Therefore, the aim of this review is to explain the contextual factors of placebo effect in psychiatric care and the ethical dimension of placebo administration from the perspective of psychiatric nursing.

The Placebo Effect and its Mechanism

A placebo is generally recognized as a simulation of the biochemistry of an individual's body by any substance or therapeutic intervention.^[3,4] A placebo is received by the individual and is influenced by a psychosocial context of equal importance to the potency of the therapeutic intervention or components that influence the therapeutic outcome.^[14] The placebo effect is a phenomenon that can be explained by physiological, psychobiological, and neurological mechanisms, although it is defined as a result of a sham drug or treatment administered to an individual.^[3,4] According to the twenty-nine internationally recognized placebo researchers, a placebo response is any change that occurs after an inactive treatment that results in a change in the course of the disease or relief of symptoms. The placebo effect is any condition characterizing placebo mechanisms consisting of neurobiological and psychosocial changes.^[2] However, the current conceptualization of placebo and the placebo effect refers to the effects of the psychosocial context that accompany any treatment and care, whether active or sham, rather than an ineffective drug/intervention given to comfort and please individuals.^[10]

There is no single known mechanism of the placebo effect, and different mechanisms play a role in different medical conditions and therapeutic practices. One of the main problems with the placebo effect is that there is still no defined and accepted classification. When the mechanisms of placebo effect are classified based on psychological, neurophysiological and biomedical approaches, there are limitations regarding in which situation, when and under which condition these mechanisms occur. However, much of the knowledge about

What is presently known on this subject?

- In psychiatric care, psychiatric nurses are in a prominent position to identify placebo effects and to use therapeutic factors that contribute to the emergence of placebo effects.

What does this article add to the existing knowledge?

- Awareness of contextual factors that supports the placebo effect and are influential in psychiatric care can contribute to the consideration of the placebo effect in care.

What are the implications for practice?

- It is thought that nurses' awareness of the value of clinical skills and therapeutic process in the emergence of placebo effects is extremely important to benefit from the placebo effect in psychiatric care and to improve nursing care.

the physiological mechanisms of placebo effects is also explained by the disease-based classification approach, where a single medical condition, such as pain and Parkinson's, is analyzed.^[14] Therefore, the causes and mechanisms of placebo effects, which are still a complex phenomenon, provide an inclusive theoretical framework through the integration of physiology, neuroscience, and biological and psychosocial developmental processes.^[2,15]

In most of the studies carried out to determine the basis of placebo effects, the main mechanism is explained by the concepts of expectancy, reward and classical conditioning. Individuals can get better and adopt a particular response simply by being given a placebo, even when they usually have a positive expectation. On the contrary, individuals with negative expectations may inhibit a particular response, minimizing the therapeutic effect as well as causing harmful effects. For example, while having a positive expectation for recovery may decrease the level of anxiety, having a negative expectation may increase anxiety.^[16] Different brain regions are activated during the anticipation phase, when a positive or negative effect is anticipated, and during the perception phase when analgesic or hyperalgesic effects are experienced.^[15] This has been demonstrated psychologically and neurobiologically in neuroimaging studies.^[14,15] However, the individual's expectations enable the realization of powerful rewards such as therapeutic benefit and clinical improvement. Especially after placebo administration in Parkinson's disease, depression, anxiety and pain, nucleus accumbens nucleus and dopaminergic activity have been shown to increase through activation of the reward mechanism.^[14-16]

Placebo effects involve learning mechanisms and can occur through social learning as well as classical conditioning.^[14] Classical conditioning suggests that past experiences have an impact on learning and that these effects are mostly subconscious. According to the classical conditioning approach, a placebo is a conditioned stimulus, and placebo effects are conditioned responses. Therefore, the positive or negative experiences of the individual may be influential in the emergence of placebo effects and may affect the therapeutic process. In particular, the effect of the shape, color, and taste of a drug on the alleviation of the symptoms of the disease, the fact that the injection is better for some individuals, the fact that

the treatment setting is a hospital, the use of white coats and stethoscopes, and the interaction with doctors and nurses have effects on clinical improvement explain the placebo effects with the classical conditioning mechanism.^[17,18]

Another factor that is effective in the emergence of the placebo effect is explained as personality traits. Some individuals may show placebo effects more depending on their personality traits. A systematic review by Kern et al.^[19] on the effect of personality traits on placebo and nocebo response reported that optimism increases the placebo response, and individuals with anxiety may be more prone to experience nocebo effects. Especially in placebo studies, reliable determination of the traits of placebo responders and non-responders and identification of whether these individuals have a common trait is predicted to be important in both the design of clinical trials and the determination of person-centered treatment and care. However, through the results of behavioral, neurobiological, and genetic studies, it has been reported that different genetic variables, especially dopamine, opioid, serotonin, and endocannabinoid systems, affect placebo responses.^[1] It has been shown that genetic variables play an important role in the emergence of placebo effects, especially in psychiatric disorders such as schizophrenia, anxiety and depression.^[20] More importantly, a better understanding by researchers and health professionals of the mechanisms of different genes in the emergence of placebo effects will be effective in maximizing placebo effects that contribute to the therapeutic process in treatment and care.^[1] Benedetti, a professor of physiology and neuroscience with numerous studies on placebo and nocebo, emphasized that the placebo effect arising from the interaction of health professionals with the patient can be explained by biochemical and physiological approaches and stated that this effect is obvious.^[14]

It is evident that there has been an increase in recent studies to explain the neurobiological and psychological processes mediating placebo and nocebo effects and to identify the contextual factors affecting them.^[3,7,8,21] The existence and consequences of the placebo effect have been an area of interest to scientists as it provides an entry point in the investigation of sensory, emotional, and environmental factors, while its effects on an individual's experience and behavior show how powerful the human mind is.^[4] With the impact of these developments, nurse researchers have also focused on examining contextual factors by drawing attention to placebo effects.^[10-12,22]

Relation of the Placebo Effect to Psychiatric Care

Views on the placebo effect in psychiatry have changed markedly due to advances in psychopharmacology.^[20] The placebo effect has a more interesting and complex relationship in psychiatry than in other fields. Both are related to the mind-body connection, and both are caused by similar psychological and neurobiological mechanisms.^[14] In addition, the fact that the psychological effects of psychiatric drugs are not yet fully known makes it difficult to use placebo in psychi-

atry compared to other fields.^[16] It has recently been reported by internationally recognized placebo researchers that the beneficial effects of placebo can be used clinically to improve patient outcomes.^[2] Nevertheless, placebo effects are not clear enough to utilize placebo mechanisms in clinical practice. In psychotherapy, the use of placebos has different challenges, and explaining them is quite complicated. One of these is that current standards in pharmaceutical research, such as the use of true placebo and double-blinding, cannot be applied to most psychotherapy techniques, and the other is that the frequency and intensity of patient-therapist interaction and the use of empathy have specific effects in psychotherapy. Therefore, as psychiatric disorders have important psychosocial components, the identification of placebo effects in psychiatry research and the true effect of a treatment becomes more complex.^[5]

Psychiatric nurses provide holistic psychiatric care for the protection and development of the physical and psychosocial health of individuals.^[23,24] Therefore, they not only provide physical care but also implement psychiatric care by placing the safe therapeutic setting, individual characteristics, interpersonal relationships, and environmental factors affecting mental health at the center of the therapeutic process. Kwekkeboom^[25] stated that placebo effects occur in 90% of nursing interventions and that nurses can increase the effectiveness of the intervention by utilizing placebo effects. However, it is reported that the use of a placebo in clinical nursing research is impractical, and it is difficult to measure and control the actual placebo effects. For this reason, nurse researchers are increasingly using usual care as their control instead of using a placebo control in their studies. However, given the placebo effects, it is necessary to identify interventions that are and are not effective in the therapeutic process. In this case, it is important to define usual care, identify potential problems, observe placebo effects on individuals and include a placebo group in nursing studies.^[11,22]

Contextual Factors of the Placebo Effect

The treatment that eliminates the individual's complaints may be an active drug or a placebo.^[26] Individuals have contextual information about the treatment and care process, such as past experiences, treatment method, clinical environment, and perceptions of the health professional. These contextual features combine to form the context of treatment and care, resulting in the active components of placebo effects.^[21] In this respect, contextual factors that increase placebo effects or decrease nocebo effects may affect individuals' recovery processes.^[3,14,21] The placebo effect occurs on the clinical, physiological, and neurobiological outcomes of individuals through the effects of the context surrounding medical treatment and care.^[3,11,21]

Nurses play an important role in the observation of placebo effects that occur in individuals in the provision of treatment and care in clinical practice. However, the majority of placebo studies are physician-orientated and pharmacological studies.

[27] On the other hand, although there are very few studies on the placebo effects of nurses in clinical practice, they usually associate the use of placebo with randomized, placebo-controlled studies.^[11] Placebo effects may result not only from the pharmacological properties of the placebo administered to the control group in clinical trials but also from contextual factors related to treatment and care during the therapeutic interaction.^[3]

Contextual factors are a powerful field that surrounds the treatment and care of the individual psychologically, cognitively, sensorily, socially, and relationally. This area consists of internal and external contextual factors related to the individual, the health professional, the treatment modality and the care environment^[21] and these mobilize placebo effects.^[8,15] The external context consists of variables such as the color, shape, taste, and smell of the drug, physical characteristics of the therapeutic setting, characteristics of health professionals and medical supplies, nurse-doctor-patient interaction, while the internal context consists of the effects of the meaning that the individual attributes to concepts such as biopsychosocial characteristics, personal beliefs, experiences, emotions, expectations, hopes for treatment.^[3]

Contextual factors are also recognized as the psychosocial component of nursing care and have the ability to enhance the effectiveness of evidence-based nursing interventions.^[12,26] Therefore, the interpretation of the perception of care and therapeutic interventions has a meaning determined by individuals and health professionals. This meaning influences the direction of recovery by initiating the process explained by psychoneurobiological mechanisms that reveal the expect-

tations, emotions, experiences, and personal characteristics of the individual who creates placebo effects.^[10,18] In a study conducted by Palese et al.^[26] the majority of nurses defined the contextual factors that increase placebo effects as “an intervention that has a possible effect but no specific effect for the condition being treated,” others as “an intervention with a specific effect through known physiological mechanisms,” “An ineffective treatment used as control tests for the safety and efficacy of active treatment” and “A harmless or ineffective intervention.” The contextual factors that lead to the emergence of placebo and nocebo effects in nursing practices were determined as the characteristics of the nurse and the individual, the nurse-individual relationship, the characteristics of the intervention, and the characteristics of the therapeutic setting.^[10,26] These features are given in Figure 1 and each of them is analyzed, respectively.

Characteristics of Nurse and Individual

The extent of the placebo effect may vary according to the characteristics and experiences of the nurse and the nurse's attitude toward the treatment and the individual.^[14,20] It is stated that the professional appearance, expertise, competence and perception of competence of psychiatric nurses affect individuals' satisfaction, compliance with treatment and care, and that the uniform of nurses affects individuals' perception of professionalism and competence.^[2,28,29] In a study conducted by Palase et al.^[26] it was reported that verbal communication (e.g., positive messages about intervention) and a person-centered approach increased positive expectations more than nurses' uniform and professional appearance. In addition to

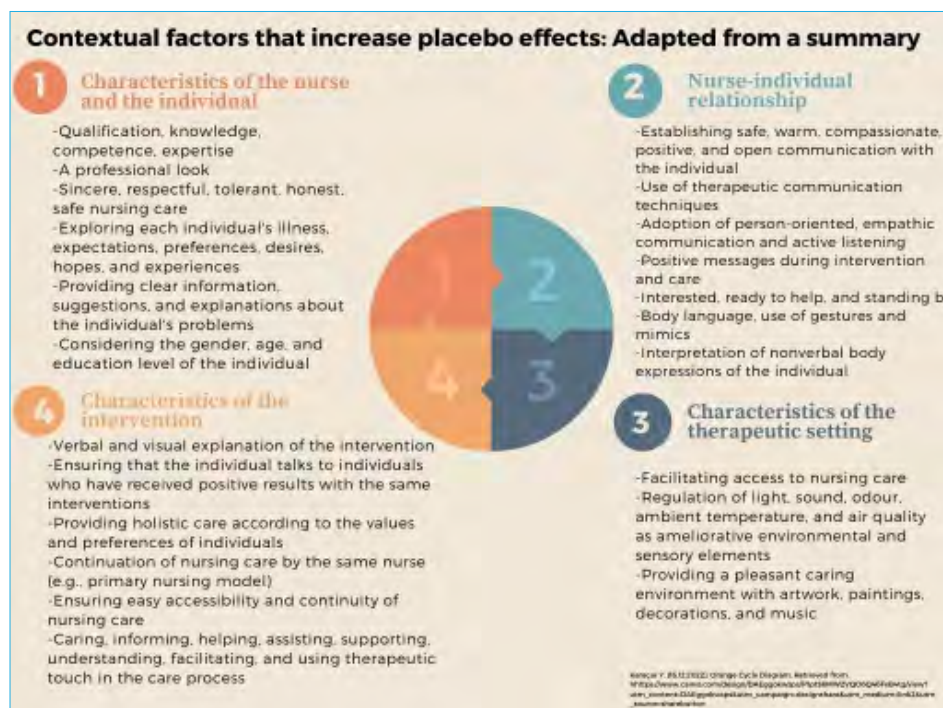


Figure 1. Contextual factors that increase placebo effects: Adapted from a summary^[10] for clinical practice.

the characteristics of the nurse, individuals' sociodemographic characteristics such as age, gender, education, personality traits, experiences, expectations, preferences, and participation in treatment and care are important contextual factors affecting the emergence of placebo effects.^[9,10] It is stated that the placebo effect is related to factors such as personal characteristics, expectation, social observation, learning, and experiences.^[2,20,21] At the same time, positive expectations, optimistic attitudes, and hopes of individuals increase the effectiveness of treatment and nursing care.^[26] Therefore, it is important for psychiatric nurses to be aware of the placebo effects and to provide person-centered care by taking into account the characteristics, values, feelings, and preferences of individuals in the care process.^[12,30]

Nurse-individual Relationship

The therapeutic relationship between psychiatric nurses and individuals with mental disorders is an important component of psychiatric care.^[31] It also has the potential to influence the therapeutic process and care outcomes.^[32] In a literature review by Charlton et al.^[33] (2008), it was reported that nurses' communication styles were associated with patient satisfaction, compliance with treatment and recovery process. Hildegard E. Peplau, one of the nurse theorists, considered the therapeutic relationship as the center of nursing and emphasized the importance of the patient-nurse relationship.^[24] Using instrumental, authentic, and interpersonal approaches that can help transform individuals' illness experiences can contribute to their recovery. In a sense, these approaches express the "therapeutic use of the self," which is considered among the basic interventions of psychiatric care.^[34] In the care process, nurses use themselves as a therapeutic tool to help individuals develop, change and heal by establishing therapeutic relationships.^[24] In a systematic review on the impact of contextual factors on health outcomes, it was reported that a warm and reassuring approach between patients and health professionals increased therapeutic effectiveness.^[35] Blasini et al.^[6] reported that empathic and person-centered care positively affects a patient's experience in the clinical setting, activating biopsychosociological mechanisms and revealing placebo effects. Especially in the therapeutic interaction of psychiatric nurses with the individual, offering their presence, being open and honest, being sensitive, empathy and communication skills, trust, courage, professionalism, and respect have an important place in the care literature and offer the opportunity to reveal placebo effects.^[11,29,31]

Features of the Therapeutic Setting

The placebo effect can be the propulsive force of significant clinical change in psychiatric care. Psychiatric nurses should be aware of the impact on the therapeutic process of contextual factors related to the therapeutic setting and nursing interventions that elicit placebo effects. At the same time, the characteristics of the care setting, such as natural lighting, heat, a relaxing and noise-free environment, healing gardens, and the use

of music and artistic elements, are important contextual factors in the emergence of placebo effects.^[10,29] It is emphasized that placebo effects form part of all therapeutic settings and play an important role in treatment/care outcomes. Although the care environment is a factor influencing the therapeutic process, a caring and warm relationship is also known to ameliorate the potential negative impact of the environment.^[29] Palese, Cadorin et al.^[26] reported that the contextual factors that most increased the placebo effects in nursing practice were verbal communication and a person-centered approach, while the least effect was reported to be architectural and environmental design. It is stated that certain design features related to the physical characteristics of the therapeutic setting, such as the use of abundant light, nature view, and art, positively affect the well-being of individuals; however, such features may vary according to diseases and individuals.^[36]

Characteristics of Nursing Intervention

It is stated that the selection of nursing interventions with an person-centered and holistic approach that respects the characteristics, preferences, values and needs of the individual increases the satisfaction and compliance of individuals with care.^[2,29,30] Psychiatric nurses can mobilize placebo effects by using simple and clear language, an empathic approach and therapeutic touch in a way that individuals can understand the interventions they plan.^[20,29-31] In addition, creating a therapeutic context in an environment where individuals can share their experiences regarding treatment and care, strengthening social support, and presenting educational interventions by utilizing group interaction positively affect the therapeutic process by increasing motivation, compliance, and hope of individuals.^[26,31]

Wiechula et al.^[29] reported that the factors affecting the care relationship between the nurse and the individual include expectations and their effects, values, knowledge and skills, communication, environment, and related context effects. In particular, individuals' expectations from nurses are that nurses should be competent and experienced, have a compassionate and empathic approach, be caring, respectful, and reliable.^[29] Palese, Cadorin et al.^[26] reported that nurses observed therapeutic, psychological, and physiological effects of contextual factors in acute and chronic pain, insomnia, emotional problems, oncological, cardiovascular, neurological and rheumatological disorders, psychological effects in cognitive disorders and sexual problems, and physiological effects in gastrointestinal problems. Placebo effects can be elicited directly by contextual factors as positive effects, or they can activate the nocebo effect and cause negative outcomes.^[3,29] Psychiatric nurses experienced in psychiatric care, with their clinical knowledge, expertise, and competence, can ensure that placebo effects are enhanced, observed, and contextual factors are examined in depth.^[10,11,27,37] Therefore, identifying the effect of contextual factors on nursing interventions may help to determine the specific effect of the intervention. For this reason, psychiatric care should not only be accessible but

also be strengthened by care models such as primary nursing to ensure the continuity of individual-centered, quality, sensitive, joint participation, and competent care.^[10] In this process, the most effective way to ethically support placebo effects is for the individual and the nurse to recognize and benefit from the naturally occurring aspects.^[11] In this context, it is important for nurses to be aware of the ethical dimension of placebo and placebo effects in care practices.

The Ethical Dimension of Placebo Administration in Psychiatric Care

Although ethical issues related to placebo are generally relevant to placebo control groups in randomized controlled trials, the main issues include informed consent, privacy, and deception.^[18,38] In general, the use of placebo is criticized as unethical for two main reasons. The first is the view that placebos violate the requirement to provide benefits on the basis that they are ineffective or less effective than actual treatments.^[18] The second is the view that placebos violate individual autonomy and entail deception.^[27,37]

Deception is associated with both the autonomy of the individual and trust.^[18] When deception occurs, it may also negatively affect the sense of trust, which is the basis of effective nurse-patient communication.^[6,29] Therefore, these individuals may not accept the recommended treatment or may be exposed to more health problems because of this. In this case, the nurse is expected to act in line with the principle of honesty towards the individual. Attention should be paid to the way the truth about the clinical condition of the individual is communicated, and importance should be given to the use of communication methods that minimize negative consequences. Individuals may not be able to use their autonomy if they are not fully informed by the nurse about their health and are not aware of their options. On the other hand, individuals may prefer not to receive information about the facts of their situation. In this case, an ethical dilemma may arise in nurses about whether or not to disclose situations that may adversely affect the psychological health of individuals and that they do not want to receive information.^[6,27]

It is considered inappropriate to adopt an ethic of absolute truth/honesty, especially where hope and a positive outlook support recovery. It is stated that it is important to be honest, however, in such cases, that compromises can be made when an ethical dilemma is experienced. The nurse may decide that the principle of benefiting the individual by making them feel better takes priority over being honest. Another view argues that deception may be perpetrated where the use of placebo is believed to be the individual's best or only chance of obtaining some therapeutic benefit.^[39] It is important how the situations that should or should not be shared about informing individuals are decided. If the nurse influences the patient's choice through deception, paternalistic behaviour can be mentioned here.^[38] Paternalism in nursing occurs when the patient's preferences, decisions or actions are changed for the good of the patient. Nurses may show a paternalistic attitude

towards individuals who do not receive sufficient information for conscious decisions. However, the paternalistic attitude of nurses is generally criticized on the grounds that it leads to ethical violations. It is important for nurses to be aware of the needs and wishes of individuals to fulfill their advocacy role when necessary. However, it is necessary to distinguish the limits of nursing's advocacy role and paternalistic attitude. In a study conducted by Palese, Cadorin et al.^[26] on nurses, it was reported that the use of contextual factors that increase placebo effects can be considered ethical when they show beneficial psychological effects but unethical when they are based on deception and threaten the trust between patient and nurse.^[26]

Nurses' knowledge and attitudes regarding the role and mechanism of placebo and ethical problems that may occur are important. The placebo effect is considered to be a part of the ethical responsibility of nursing because it positively affects the autonomy of the individual, the healing process, and the outcomes of care. Nursing principles require establishing a relationship with the individual as a whole, not only as a biological being, and it is assumed that respect for individuals is the most fundamental moral principle in nursing. Nurses respect the dignity, value, and uniqueness of each individual under the guidance of ethical rules and provide care in line with the principles of harmlessness-usefulness, autonomy/respect for the individual, privacy and confidentiality, justice and equality.^[23] Accordingly, in placebo studies, individuals have the right to refuse any treatment if they have sufficient decision-making capacity. Therefore, deceiving individuals about clinical treatments may violate their right to consent to or refuse treatment. In this context, there is a legal and ethical consensus that individuals should be informed and give consent before medical treatments are applied. Informed consent is to ensure that the patient or surrogate has the opportunity to accept or refuse the proposed treatment without coercion. It is emphasised that appropriate informed consent procedures increase mutual trust and are the foundation of a strong therapeutic relationship.^[40] Failure to do so jeopardizes the autonomy and dignity of the individual. The ethical code of nursing clearly states that all nurses, whatever their role, have a responsibility to create, maintain, and contribute to environments that support them in fulfilling their ethical obligations.^[23] Therefore, it can be said that nurses are ethically obliged to refuse to fulfill the instruction to give a placebo unless the individuals are informed. Therefore, nurses should endeavor to explore the rationale behind any proposed use of placebo and question whether the aims of nursing care can be furthered by the use of placebo. Nurses should also inform their colleagues about the problems with placebos and work together to develop policies against their use.^[11,12,27]

Conclusion

Although the scientific understanding of the placebo effect has improved in recent years, it is still seen as a complex phenomenon. Placebo has effects on the structure, functioning,

and outcomes of psychiatric care that are not yet fully explained. The placebo effect can elicit direct positive effects by contextual factors and improve the effectiveness of psychiatric care. Since the placebo effect covers all aspects of nursing care, understanding this process is extremely important to improve nursing care and increase placebo effects.

Nurses should be aware that clinical skills and the therapeutic process can elicit placebo effects. In psychiatric care, psychiatric nurses play a significant role in understanding, identifying, and incorporating the placebo effect into the therapeutic process. In addition, ethical discussions on placebo applications continue, and it is thought that policies should be established for nursing practice and research in this field. Since the literature on placebo and its effects in nursing practice and research is very limited, More research is needed to understand the complex nature of placebo by nurses and to determine the placebo effect in nursing interventions.

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