

e-ISSN: 3023-7270

JNCR

Journal of Nursing Care Research

Volume: 1

Issue: 4

Year: 2024



MHA
MEDIHEALTH ACADEMY

www.medihealthacademy.com

EDITOR-IN-CHIEF

Assoc. Prof. Hilal SEKİ ÖZ

Department of Psychiatric Nursing, Faculty of Health Sciences, Kırşehir Ahi Evran University, Kırşehir, Türkiye

ASSOCIATE EDITORS-IN-CHIEF

Assist. Prof. Belgin VAROL

Department of Psychiatric Nursing, Faculty of Nursing, University of Health Sciences, Ankara, Türkiye

Assoc. Prof. Didem AYHAN

Department of Mental Health and Diseases Nursing, Faculty of Health Sciences, Bandırma Onyedi Eylül University, Balıkesir, Türkiye

EDITORIAL BOARD

Assist. Prof. Amine TERZİ

Department of Internal Disease Nursing, Faculty of Health Sciences, Artvin Çoruh University, Artvin, Türkiye

Assist. Prof. Arif Hüdai KÖKEN

Department of Medical History and Ethics, Faculty of Medicine, Kırşehir Ahi Evran University, Kırşehir, Türkiye

Assoc. Prof. Arzu YÜKSEL

Department of Psychiatric Nursing, Faculty of Health Sciences, Aksaray University, Aksaray, Türkiye

Assist. Prof. Ayşe ÇİÇEK KORKMAZ

Department of Management in Nursing, Faculty of Health Sciences, Bandırma Onyedi Eylül University, Balıkesir, Türkiye

Assist. Prof. Burcu DULUKLU

Department of Surgery Nursing, Faculty of Nursing, Hacettepe University, Ankara, Türkiye

Assist. Prof. Emine KORKMAZ

Department of Fundamental Nursing, Faculty of Health Sciences, Kırşehir Ahi Evran University, Kırşehir, Türkiye

Assoc. Prof. Ezgi Seyhan AK

Department of Surgical Nursing, Florence Nightingale Faculty of Nursing, İstanbul University-Cerrahpaşa, İstanbul, Türkiye

Prof. Fatma ÖZ

Department of Psychiatric Nursing, Faculty of Health Sciences, Lokman Hekim University, Ankara, Türkiye

Prof. Gökçe DEMİR

Department of Public Health Nursing, Faculty of Health Sciences, Kırşehir Ahi Evran University, Kırşehir, Türkiye

Assoc. Prof. Kerime BADEMLİ

Department of Psychiatric Nursing, Faculty of Nursing, Akdeniz University, Antalya, Türkiye

Assoc. Prof. Maral KARGIN

Department of Psychiatric Nursing, Faculty of Health Sciences, Cyprus Science University, Girne, Cyprus

Assist. Prof. Miray AKSU

Department of Fundamental Nursing, Gülhane Faculty of Nursing, University of Health Sciences, Ankara, Türkiye

Assist. Prof. Nurdan ÇAKIL AYMELEK

Department of Obstetrics and Gynecology Nursing, Faculty of Health Sciences, Kırşehir Ahi Evran University, Kırşehir, Türkiye

Assist. Prof. Özkan SARIKAYA

Department of Child Development, Faculty of Health Sciences, Kırşehir Ahi Evran University, Kırşehir, Türkiye

Assist. Prof. Seçil EKİZ ERİM

Department of Internal Disease Nursing, Faculty of Health Sciences, Kocaeli University, Kocaeli, Türkiye

Assoc. Prof. Sibel ARGUVANLI ÇOBAN

Department of Psychiatric Nursing, Faculty of Health Sciences, Zonguldak Bülent Ecevit University, Zonguldak, Türkiye

Assist. Prof. Yasemin Eda TEKİN

Department of Surgical Nursing, Faculty of Health Sciences, Mudanya University, Bursa, Türkiye

Assoc. Prof. Yunus KAYA

Department of Child Development, Faculty of Health Sciences, Aksaray University, Aksaray, Türkiye

Assoc. Prof. Zeliha KAYA ERTEN

Department of Public Health Nursing, Faculty of Health Sciences, Nuh Naci Yazgan University, Kayseri, Türkiye

Assist. Prof. Zübeyde Ezgi ERÇELİK

Department of Child Health and Diseases Nursing, Faculty of Health Sciences, Bandırma Onyedi Eylül University, Balıkesir, Türkiye

ENGLISH LANGUAGE EDITOR

Assoc. Prof. Esra Güzel TANOĞLU

Department of Molecular Biology and Genetics, Institute of Health Sciences, University of Health Sciences, İstanbul, Türkiye

STATISTICS EDITOR

Assoc. Prof. Turgut KÜLTÜR

Department of Physical Therapy and Rehabilitation, Faculty of Medicine, Kırıkkale University, Kırıkkale, Türkiye

LAYOUT EDITOR

Şerife KUTLU

Engineer, MediHealth Academy Publishing, Ankara, Türkiye

ORIGINAL ARTICLES

Picture analysis of nursing perception of children on coagulation factor therapy 88-94

Öztürk, B., Seki Öz, H.

Evaluation of infection status of patients with acute renal failure according to catheter placement site: a retrospective study..... 95-100

Yılmaz, Ü., Enç, N.

Use of simulation in psychiatric nursing education: a systematic review..... 101-105

Belen, H. M., Sarıkoç, G.

REVIEWS



Nursing care for children with autism spectrum disorder within the scope of pediatric health and nursing.....106-110

Göker, F. N.

A brief overview of the therapeutic alliance: historical, theoretical and contemporary debates..... 111-114

Öz, T.

Picture analysis of nursing perception of children on coagulation factor therapy

 Bedriye Öztürk¹,  Hilal Seki Öz²

¹Department of Psychiatric Nursing, Aksaray Training and Research Hospital, Aksaray, Türkiye

²Department of Psychiatric Nursing, Faculty of Health Sciences, Kırşehir Ahi Evran University, Kırşehir, Türkiye

Received: 16/10/2024

Accepted: 23/11/2024

Published: 20/12/2024

Cite this article: Öztürk, B., & Seki Öz, H. (2024). Picture analysis of nursing perception of children on coagulation factor therapy. *J Nurs Care Res.* 1(3), 88-94.

Corresponding Author: Hilal Seki Öz, hilalseki@hotmail.com

ABSTRACT

Aims: Children with clotting factor deficiency need to receive clotting factors intravenously throughout their lives; this necessity leads to intense interaction between the child and the nurse.

Methods: The study was conducted using projective picture analysis method to examine the perceptions of children with clotting factor deficiency disease towards nurses. The study was conducted between March 5 and April 12, 2022 in the Pediatric Clinic of Aksaray Training and Research Hospital with 20 children aged 7-11 years with clotting factor deficiency disease. The data were collected through the "Introductory Information Form" and the pictures drawn by the children with the instruction "draw me a nurse". Data analysis was done by projective picture analysis method.

Results: It was observed that 75% of the nurse drawings in the study contained positive perceptions of nurses. It was found that 40% of the children's perception of nursing was emotional, 35% was professional, 10% was both physical and professional, 10% was both physical, emotional and professional, and 5% was physical.

Conclusion: It was observed that hemophilic children perceived nurses positively, but they felt anger towards them for opening the vein and thought that they hurt them; however, especially the gifts given, the smiling face and the completion of the procedure made the children feel good. It is recommended that pediatric nurses use this method in children with different diseases.

Keywords: Children's pictures, nursing, hemophilia, picture analysis

INTRODUCTION

Childhood chronic diseases are diseases that can negatively affect the development of the child in terms of physical, mental and environmental adaptation and can cause different psychological reactions (Kavaklı, 2016). Coagulation factor deficiency diseases, which are among the diseases that start in childhood and deeply affect life, occur due to hemophilia A and hemophilia B, factor VIII and factor IX deficiency. The child is often diagnosed with the experience of a bleeding that does not stop, bleeding symptoms occur after the baby becomes mobile, starts walking in the later period, accidents, bumps or surgical operations such as circumcision, and after the diagnosis, a childhood full of limitations and years of receiving the missing factor in the hospital begin for children (Zhang, Zhang & Chen, 2024). Since there is no definitive treatment for the disease, the missing clotting factor is regularly administered externally (Srivastava et al., 2013). Due to the short half-life of these factors, which are not produced by the body due to the disease, factor replacement is performed with intravenous administrations, which can

be one to three times a week (Kavaklı, 2016). Therefore, a challenging life begins for the hemophilic child and his/her family and turns into a process that affects all family members emotionally, socially and financially due to the need for lifelong hospitalization and prolonged hospitalization (Berntorp, et al., 2023).

For the hemophilic child, bleeding periods and the resulting prolonged hospitalizations can be a frightening, disturbing and limiting experience for children. On the one hand, the child has to struggle with treatments including invasive interventions to combat the disease, on the other hand, he/she has to struggle with the negative feelings of being separated from his/her family, playmates, school environment and being different from his/her peers (Zhang, Zhang & Chen, 2024). The experience of being sick and hospitalized in childhood can interfere with children's independence, relationships with friends, school and play activities, which are very valuable for children (Boyce, et al., 2023). While hemophilic children already have a life outside the hospital

that makes them feel different from other children, where running, playing soccer and even participating in physical education classes are prohibited in addition to the soft room arrangement to prevent bleeding, this situation is further restricted with hospitalization (Negrier et al., 2013). Anderst et al. (2017) showed that hospitalization and mobility restriction of children with bleeding disorders due to illness negatively affect school attendance and reduce the happiness, well-being and interaction with others (Negrier et al., 2018).

For the hemophilic child, bleeding periods and the resulting prolonged hospitalizations can be a frightening, disturbing and limiting experience for children. On the one hand, the child has to struggle with treatments including invasive interventions to combat the disease, on the other hand, he/she has to struggle with the negative feelings of being separated from his/her family, playmates, school environment and being different from his/her peers (Zhang, Zhang & Chen, 2024). The experience of being sick and hospitalized in childhood can interfere with children's independence, relationships with friends, school and play activities, which are very valuable for children (Boyce, et al., 2023). While hemophilic children already have a life outside the hospital that makes them feel different from other children, where running, playing soccer and even participating in physical education classes are prohibited in addition to the soft room arrangement to prevent bleeding, this situation is further restricted with hospitalization (Negrier et al., 2013). Anderst et al. (2017) showed that hospitalization and mobility restriction of children with bleeding disorders due to illness negatively affect school attendance and reduce the happiness, well-being and interaction with others (Negrier et al., 2018).

The technique of having children draw pictures can be a more effective way than verbal expression in conveying the events that affect them emotionally. Children reflect a part of themselves through their drawings and express their feelings, thoughts and perspectives about events (Yavuzer, 2005). Due to these advantages, it is recommended to use drawing, which is a projective method, in children who express themselves verbally in a more limited way than adults (Efe, et al., 2023). The fact that the majority of children like drawing pictures facilitates the use of this technique (Yavuzer, 2005). The hemophilic child may feel "angry" at the nurse who constantly opens the intravenous line and sometimes hurts him/her due to the disease process, being "obliged" to the same nurse for the continuity of the treatment and receiving the treatment thanks to the "nurse" may create a process involving ambivalent feelings in the child. Again, the difficulties that these children may experience in communicating themselves make it difficult to express this ambivalence in words. The ability of the child to express himself/herself to the nurse, to convey his/her feelings, to communicate his/her expectations and existing problems will increase the strength of the relationship with the nurse, while nurses will be able to understand the needs of hemophilic children and provide optimal care in this direction. Therefore, it is important to examine the perceptions of hemophilic children towards nurses.

METHODS

Ethical Dimension

The approval of the ethics committee of the research was first obtained from Aksaray Provincial Health Directorate

to which Aksaray Training and Research Hospital, where the application will be carried out, with the decision dated 15/09/2021 and numbered 3612. After the institutional permission was obtained, approval was obtained from Kırşehir Ahi Evran University Faculty of Medicine Non-interventional Clinical Researches Ethics Committee for the implementation of the research (Date: 19.10.2021, Decision No: 2021-17/178). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

Research Model

This research was shaped according to the phenomenology model, one of the qualitative research methods. In this research, the perceptions of children with clotting factor deficiency disease towards nurses were determined as phenomena and the drawing technique was used.

Population and Sample of the Study

The population of this study consisted of 30 children between the ages of 7 and 11 who had coagulation factor deficiency disease and received factor replacement therapy at Aksaray Training and Research Hospital in Aksaray province. The 7-11 age group was chosen because it is the age group that continues primary education and knows how to read and write. The information of the children who underwent coagulation factor deficiency treatment was obtained from the hospital where the application was performed, and it was seen that a total of 30 children were registered. The times of the replacement therapy were learned from the hospital records, and the children and their parents were informed about the study during the application and invited to the study. Inclusion criteria were as follows: administration of coagulation factor deficiency treatment, age between 7-11 years, the child's willingness to participate in the study, the parent's willingness to participate in the study, no factor treatment in the last 24 hours and no active bleeding. The exclusion criteria were as follows: having any physical disability to draw, not consenting to participate in the study by themselves or their parents, having received factor treatment in the last 24 hours (negative perception may occur due to pain and pain sensation), having active bleeding due to an increase in the amount of factor applied and the number of invasive procedures.

After the children and parents were informed about the study, 23 children met the inclusion criteria and 5 children were excluded because they did not want to participate and 2 children were excluded because they were bleeding. For the implementation of the study, children were invited again to draw pictures on a day without factor replacement therapy. In this process, 3 children did not participate in the application and were excluded from the study. Accordingly, the study was conducted with 20 children with coagulation factor deficiency disease.

Data Collection Tool

Personal Information Form and 'Draw Me a Nurse' themed picture were used as data collection tools.

Personal Information Form: The personal information form used in our study was prepared by the researcher considering the personal and family characteristics of children with coagulation factor deficiency. The form includes questions about age, gender, grade, height, weight, family income,

number of siblings, presence of bleeding disorders in parents, and frequency of anti-bleeding treatment (Appendix 1).

'Draw me a nurse': Drawing a picture for a nurse with the theme. This data collection form consists of a blank, white A4 paper. After the "draw me a nurse" command is given to the participant, he/she can draw whatever he/she wants with the coloring pencils given to him/her.

Implementation of the Research

The treatment times of the children who were treated for coagulation factor deficiency in the Pediatrics Clinic of Aksaray Training and Research Hospital were learned. Firstly, the researcher working in the same hospital informed the parents and children about the study during the treatment of the children and invited them to the study. After the consent of the child and the parent was obtained, they were invited to the hospital again between March 5 and April 12 for the implementation of the study. Before the application, the verbal and written consent of the parent and the child was obtained. Then the child was asked to fill in the introductory information form, and finally, the children were given blank A4 file paper, 12 color crayons, one pencil and told to "draw me a nurse". During drawing, the child was not intervened, conditions were provided so that he/she could draw comfortably and waited until he/she completed his/her drawing. Finally, when the drawing was completed, the child was asked to interpret the drawing. Two children asked for an eraser during the drawing process, but they were not given erasers in order not to change the results of the study. On average, all the procedure lasted 20 minutes for each child. After reaching 20 children who received clotting factor deficiency treatment, the data collection process was terminated.

Statistical Analysis

Document analysis technique was used in the research. Document analysis is used to support the information obtained when written and visual materials, observations and interviews are not sufficient or when such methods are used (Baş, 2017). Since the main body of the study consisted of nurse drawings made by children aged 7-11 years with clotting factor deficiency, document analysis was used. The pictures drawn by children with clotting factor deficiency disease were used as data collection tools in the study. In order to determine the nurse perception of children with coagulation factor deficiency through pictures, each child was asked to draw a picture by saying "draw me a nurse". The drawn pictures were interpreted in line with the information obtained after attending the "child pictures analysis and psychological tests" course taken by the researcher, and the interpretation was based on Haluk Yavuzer's approaches to the picture analysis method in his 2005 book "children with pictures." During the interpretation, the parts of the body in the human figure in the picture drawn by the child, the colors used by the child and the child's interpretation were taken into consideration. In the pictures where the human figure was not drawn or where there were missing limbs in the human figure, the child's interpretation, the colors used by the child in the picture and other figures were taken into consideration.

Validity and Reliability

The following methods were followed in internal reliability measures. The research was conducted with a descriptive

approach and the data obtained through drawing were presented with direct visual quotations and then interpreted. The findings of the picture analysis were matched with the information obtained from the children and the information obtained from the parents about the child, and it was determined that there was 90% agreement between the picture interpretations and the data. In addition, a comparison was made with similar research findings and the analysis interpretations were approved by two experts in the field. In external reliability measures, the information of the children included in the study was confirmed by comparing the hospital records.

In the validity measures of the research, the data were associated with the evidence obtained. It was clearly stated how the interpretations were arrived at. With regard to external validity, due to the low generalizability of qualitative studies, it is stated that elaboration and good description of the research stages in ensuring external validity will facilitate similar studies by other researchers in other settings. In this respect, in this study, the research stages and the interpretations of the picture analysis were detailed.

RESULTS

The research findings were analyzed in two sections. In the first part, the personal information of the children and in the second part, the interpretations of the pictures drawn by the children were given (Table).

Table. Distribution of children with hemophilia according to their personal information

Personal Characteristics	n	%
Age (year)	7	10
	8	30
	9	30
	10	30
Gender	Kız	5
	Erkek	95
Class of education	Grade 1	10
	Grade 2	30
	Grade 3	30
	Grade 4	30
Height (cm)	120-125	10
	126-130	35
	130-135	30
	136-140	25
Weight (kg)	20-25	60
	25-30	30
	30-35	10
Income status	Income is equal to expenditure	80
	Income less than expenditure	5
	Income more than expenditure	15
Number of siblings	0	5
	1	5
	2	80
	3	10
Presence of bleeding disorders in mother/father	Mother is a carrier	75
	The mother has a disease	5
	The father has the disease	25
	Both have the disease	5
	No disease in both of them	0
Frequency of anti-bleeding treatment	1 time a week	25
	2 times a week	70
	3 times a week	5

Of the children who participated in the study, 10% were 7 years old, 30% were 8 years old, 30% were 9 years old and 30% were 10 years old. 95% of the children were boys and 5% were girls. When their educational status is analyzed, it is seen that all of them went to primary school and 30% were in 2nd grade, 30% in 3rd grade, 30% in 4th grade and 2% in 1st grade. 35% of the children were 126-130 cm tall and 60% weighed 20-25 kg. The majority of the children had an income equal to their expenses and had 2 siblings.

When the characteristics related to the disease were evaluated, it was observed that 75% of the children's mothers were carriers and 70% of the children received anti-bleeding treatment 2 times a week. The results of the analysis of children's perception of nurses are as follows;

- **C1:** Looking at the overall picture, the use of colors and the child's interpretation, the child's perception of nurses is positive and the emotional aspect comes to the fore.
- **C2:** It can be said that the child felt very painful during the nursing interventions and complained a lot about this situation, and wanted to talk to the nurse, indicating an emotional deficiency due to these interventions. The child's perception of nurses is negative. It is seen that the profession of nursing comes to the forefront in the picture.
- **C3:** When the child's perception of nurses is combined with his/her comments and the picture he/she drew, the child's perception of nurses is positive. It is seen that the nursing profession comes to the forefront in the picture.
- **C4:** The child likes nurses and has a positive perception of nurses. Emotional aspect came to the fore.
- **C5:** It can be said that the child has a negative view of nurses due to nursing interventions, but still loves them. Considering the child's interpretation and drawing, the child's perception of nurses is not completely positive or negative. There are positive and negative expressions. The nursing profession came to the forefront.
- **C6:** It was revealed from the child's expressions and the picture drawn by the child that the child had a distrust towards nurses and thought of illness when he/she thought of nurses. The child's perception of nurses is negative. The emotional aspect came to the fore.
- **C7:** The child's view of nurses is generally positive, but the appearance of the mouth, which is the most striking part of the drawn face, expresses negativity. The child's perception of nursing is not completely positive or negative, it is predominantly negative. Emotional aspect came to the fore.
- **C8:** The child's perception of nursing is positive. Emotional aspect came to the fore.
- **C9:** The child's perception of nursing is positive. It came to the fore physically.
- **C10:** The child's perception of nursing is negative. In the picture, it is seen that the nursing profession and physical characteristics come to the forefront.
- **C11:** The child's perception of nurses is positive. He drew a big head, he expresses that he sees them as academically successful. The nursing profession came to the forefront.
- **C12:** The child's perception of nursing is negative. The emotional aspect came to the fore.
- **C13:** The child did not draw the face and therefore expresses that he/she experiences uncertainty about the lack of emotion. Considering the child's comments and drawings, the child's perception of nursing is positive. The physical characteristics of nurses came to the fore.
- **C14:** The child's perception of nursing is negative. It is seen that the nursing profession comes to the forefront in the picture.
- **C15:** The child's perception of nursing is positive. There is an eyelash drawing expressing that he finds nurses physically beautiful. He associated the nurse with himself. Physical, emotional and professional aspects were emphasized in the perception of nurses.
- **C16:** It is seen that nursing interventions negatively affect the child's perception of nursing, but otherwise the picture is positive and the child's perception of nursing is positive. It is seen that the nursing profession comes to the forefront in the picture.
- **C17:** It is a positive picture towards the nursing profession, but it is a picture in which the child has a communication problem with the nurse applying treatment. The child's perception of nursing is negative. Physical, emotional and professional aspects were emphasized in the perception of the nurse.
- **C18:** The child's perception of nursing is positive. He drew a nurse emotionally.
- **C19:** The child's perception of nursing is positive. It is seen that the nursing profession comes to the forefront in the picture.
- **C20:** The child's perception of nursing is positive. It is seen that the nursing profession and physical characteristics come to the fore in the picture.

DISCUSSION

It is seen that 75% of the nurse drawings in the study contain positive perceptions of nurses. The comments of some of the children with positive perceptions of nurses are as follows: "Nurses are always in my life, I love them very much." (C4). "They always hurt me, but after a short time the pain goes away and I can love them then." (C5). "I love nurses very much, my nurse too." (C6). "I love them very much, whenever I start to feel bad, they always heal me." (C11). Çakırer Çalbayram et al. (2018) asked children with chronic diseases to draw a picture. 83.3% of the children drew a nurse figure. In this study, in which the facial expressions of the nurses were asked to be drawn, it was found that 95.5% of the nurses drawn by the children were smiling and 4.5% were angry. Similarly, Corsano et al. (2012) examined the relationships of hospitalized children aged 6-15 years with doctors and nurses and analyzed their drawings for this purpose. The study revealed that children's relationships with the healthcare team, especially with nurses, were positive. It can be said that the findings obtained in the study are consistent with the literature, hemophilic children who undergo frequent invasive procedures feel relieved after these interventions, which offer the opportunity to access treatment and recovery, and their perceptions of nurses are generally positive.

It was found that 40% of the children's perception of nursing was emotional, 35% was professional, 10% was both physical and professional, 10% was both physical, emotional and professional, and 5% was physical. When the children's drawings and their own comments are analyzed, it is seen that nurses are considered by children in emotional, professional and physical dimensions. Some of the comments of the children for the professional dimension are as follows: "Nurses are constantly doing something like robots. In fact, they are constantly giving injections and hurting people." (C2). For the emotional dimension, a child said: "Nurses are always in my life, I love them very much" (C4), while the comments on the physical dimension were as follows. "Nurses are very ugly, I don't like them because they give me injections." (C10), 'Nurses are very beautiful.' (C13). A similar study was conducted by Sönmez et al. (2014) to examine the perception of nurses among children aged 6-18 years. In the study, when children were asked about the responsibilities of nurses, 74.8% stated that they gave injections and 1.9% stated that they played with them. In a similar study, the views of hospitalized children on "good nurses" were examined and for this purpose, a study was conducted with 22 children between the ages of 7 and 12 using the draw and write technique. As a result of the research, the characteristics of a good nurse defined by children were identified as five themes: communication, professional competence, trust, professional appearance and virtues (Brady, 2009). It can be said that these themes, especially professional competence and professional appearance, are similar to the professional characteristics emphasized in our study.

It was determined that 85% of the children participating in the study used human figures in their drawings of nurses and all of these figures were drawn as women. In a study conducted by Canbulat et al. (2012), it was found that 57.8% of the children drew nurses as female figures. The reason why nurses are mostly drawn in the female figure may be due to the fact that the number of female nurses working in our country is considerably higher than the number of male nurses and therefore the rate of encounters with female nurses will be higher (Yayan & Kan, 2019), and it can be said that especially based on the positive perception of the nurse, it can be said that the nurse with a positive experience is drawn more. In this direction, it can be thought that female nurses may be more caring, patient or understanding in their approach to children compared to male nurses due to gender differences and motherhood roles, and therefore children may prefer to draw female nurses more.

In the study, it was found that half of the children drew a needle figure in the hands of a nurse. In the study by Uysal et al. (2018), it was determined that children with negative perceptions of nurses defined nurses as people who give injections, hurt, give medicine, make them cry, scare them, make them angry, frustrated and silence them. Durualp et al. (2012) found that 75% of children reported that nurses gave injections, and Ünal et al. (2002) found that 22% of children reported that nurses gave injections. In the upbringing of children, it is known that families show the nurse as "the person who gives injections" and as a threat for children to be more docile, calm, not to misbehave or to finish their meals before they ever come to the hospital or encounter a nurse (Uysal et al., 2018). It is clear that this misguidance creates a sense of prejudice and fear against nurses in children.

In addition, the child is also introduced to injection as a painful and painful procedure in hospital experiences, and this experience increases the child's negative feelings like a self-fulfilling prophecy. For these reasons, it can be said that children identify needles and nurses, and this is reflected in their drawings.

It is thought that there is a strong link between the colors used in children's drawings and diseases. It was determined that 55% of the children participating in the study used blue, 35% black, 30% red, 30% purple, 30% yellow, 20% pink, 20% green, 15% brown and 5% orange colors. In a study, it was found that children with aggressive behavior preferred red the most in school-themed drawings of children (Şener, 2018). In another study, it was determined that the color in which the feeling of anger was expressed was red. When the colors in the violence-themed study of Aytar and colleagues (2019) were examined, it was found that brown was used more intensely. In a study conducted by Yayan and Kan (2019) with children with leukemia, it was found that children mostly used red in their drawings (Yayan & Kan, 2019). In the study, it was observed that blue was used the most, followed by black and then warm colors. Blue color expresses trust. The color black is seen as a reflection of the negativity in the child's feelings and thoughts. Children sometimes associate the color black with the thought of death. Children also used the color red and it is thought that this is because some children associate red with blood. The color red can also be associated with a burning sensation, pain or a tumor. It can be said that the colors chosen in the drawings are often related to the treatment process of the children, that the disease and infusion practices have a decisive place in their lives, and that they need to feel trust. It is possible that nurses, who are frequently encountered in the treatment process, can be reassuring and healing as well as hurting and disliked people in their illnesses. For this reason, children experience ambivalent feelings towards nurses and it can be said that this ambivalence is reflected in the colors they use.

In the pictures drawn by the children participating in the study, it was determined that 30% of the nurse figure's hands or fingers were missing, some children drew feet or legs, and some children drew the face missing. The pictures for the missing limbs were interpreted as follows: "... but he drew the hands missing, which, when considered together with his tall height and his interpretation, indicates that the child wanted to punish the nurse for giving the needle by not drawing her hands." (C2). "..., the fingers were drawn missing on the hand that was expressed to be a needle, which, when considered together with the child's tall stature, indicates that the child considered nursing interventions as violence." (C5). "...legs and feet were drawn missing; this expresses a sense of insecurity." (C6). "...fingers were drawn missing on the hand that was expressed to be a needle, and when this is considered with the open mouth and the prominent drawing of the teeth, it is obtained that the child thinks of nursing interventions as violence." (C10). "...the fingers on the hands are drawn missing and the needle figure can be expressed that the nursing intervention is perceived as violence by the child, this situation, together with the absence of a neck, indicates that the child is angry with the nursing interventions." (C14). "... he did not draw the face, so he expresses a lack of emotion and uncertainty." (C13). In one study, it was observed that although children had the ability to draw the limbs of human

figures completely, they drew the limbs of human figures incompletely (Aktın, 2018). When the drawings are examined, it is seen that the fingers, hand, face, legs and feet are drawn incompletely. It is seen that this situation is mostly related to the fact that the child perceives the process of opening an intravenous line for infusion as violence, feels anger at the nurse who does this from time to time and wants to punish her. In addition, there is also a lack of communication and trust problems with the nurse. These findings are consistent with the colors used and the comments of the children.

Another finding obtained in the study is that some gifts given to children by nurses were pictured. The comments of the children who received gifts from their nurses were as follows. "She bought me a hairpin once, one with a butterfly, and I wanted to draw it. I love her very much." (C9). Another child said: "first they give me an injection, but then they make me happy, once she gave me a chocolate bar, I drew it in her hand." (C1). The fact that the children reflected a gift given to them by the nurses in their drawings shows that this action had a significant effect on them and created a positive perception about nurses in a professional sense. It is also thought that this situation helps hemophilic children to cope with the anger they feel towards nurses and the perception of violence they feel due to infusion applications, which is a painful, painful and repetitive procedure. Working with children and reaching out to children requires very different competencies than adults, and the use of techniques such as therapeutic play and therapeutic communication facilitates communication. It can be said that the nurses' being caring, smiling and talking to the children relaxed the children before the infusion, therapeutic games such as balloons made by inflating gloves prepared the children for the procedure, and small gifts given after the infusion made it easier to cope with the negative effects of the procedure and reflected this situation in the children's drawings.

CONCLUSION

In this study, which aimed to examine the perceptions of children who received factor therapy due to hemophilia disease towards nurses by using picture analysis method, it was determined that children's perceptions towards nurses were mostly positive and the emotional aspect was more prominent. It was observed that half of the children defined nurses as 'needle-makers' and perceived the invasive procedure as violence. It was found that hemophilic children were angry with the nurse for opening the vascular access and thought that she hurt them, but especially the gifts given, the kind face and the completion of the procedure made the children feel good. In line with these results, it can be said that nurses' being friendly in their communication with the child and using therapeutic play can make it easier for the child to cope with invasive procedures. It is recommended to conduct studies with different designs to clarify the situations that cause this perception in children with negative perception of nursing.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was initiated with the approval of the Kırşehir Ahi Evran University Faculty of Medicine Non-interventional Clinical Researches Ethics Committee (Date: 19.10.2021, Decision No: 2021-17/178).

Informed Consent

All childrens' parents signed and free and informed consent form.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

REFERENCES

- Aktın, K. (2018). Reflections from happiness themed drawings by refugee children. *Primary Edu Online*, 17(3),1524-1547.
- Anderst, J., Carpenter, S., Presley, R., Berkoff, M., Wheeler, A., & Sidonio, R. (2018). Relevance of abusive head trauma to intracranial hemorrhages and bleeding disorders. *Pediatrics*, 141(5),e20173485.
- Aytar, F., Eren, C., Aşkan, M., & Şahin, S. (2019). An investigation of 5-6-year-old children's basic emotions through their drawings. *Soc Sci Surveys J*, 9(1),91-105.
- Baş, T. (2017). Quantitative research methods, Baş, T. & Akturan, U. eds. (3. Edition). Ankara: Seçkin Yayıncılık.
- Berntorp, E., Fischer, K., Hart, D. P., Mancuso, M. E., Stephensen, D., Shapiro, A. D., & Blanchette, V. (2021). Haemophilia. *Nat Rev Dis Pri*. 7(1),45.
- Boyce, S., Fletcher, S., Jones, A., Kohli, R., Mangles, S., Ong, M., Pollard, D., Sivasubramaniyam, S., Stephensen, D., Stoner, N., & Kazmi, R. (2023). Educational needs of patients, families, and healthcare professionals to support the patient journey in haemophilia gene therapy in the UK. *Orphanet J Rare Dis*, 18(1),366.
- Brady, M. (2009). Hospitalized children's views of the good nurse. *Nurs Ethics*. 16(5),543-560.
- Canbulat, N., Kurt, A., Balcı, S., & Kara, S. (2012). An analysis of children's thoughts about the nursing profession using the method of having children draw pictures. *Health MED*, 6(6),1900-1905.
- Corsano, P., Majorano, M., Vignola, V., Cardinale, E., Izzi, G., & Nuzzo, M. (2012). Hospitalized children's representations of their relationship with nurses and doctors. *J Child Health Care*, 17(3),294-304.
- Çalbayram, N., Altundağ, S., & Aydın, B. (2018). Investigating children's perception of nurses through their drawing. *Clin Nurs Res*, 27(8),984-1001.
- Durualp, E., Çiçenoğlu, S., Mümüneoğlu, S., Kalkanlı, G., & Altuntaş, Z. (2012). An analysis of the pictures drawn of the hospitalized preschool children. *J Edu Train Surveys*, 1(3),249-260.
- Efe, Y.S., Söyünmez, S., Zülkar, Y., & Başdaş, Ö. (2023). Determining family relations through drawing: family relations in images drawn by immigrant children. *J Pediatr Nurs*, 72,e105-e113.
- Kavaklı, K. (2016). World and Türkiye profile of children with bleeding diseases. *Turk Clin Pediatr Nurs Spec Topics*, 2(2),1-3.
- Negrier, C., Seuser, A., Forsyth, A., Lobet, S., Llinas, A., & Rosas, M. (2013). The benefits of exercise for patients with haemophilia and recommendations for safe and effective physical activity. *Offic J World Federat Hemophilia*, 19(4),487-498.
- Sönmez, D., Uysal, G., & Akay, H. (2014). Nursing perception of the children hospitalized in a university hospital. *Proced Soc Behavioral Sci*, 152,362-367.
- Srivastava, A., Brewer, A., Mauser-Bunschoten, E., Key, N., Kitchen, S., & Linas, A. (2013). *Guidelin Manag Hemophilia*, 19(1),47-66.
- Şener, G. (2018). Interpretations on the school-themed drawings made by the children in pre-schematic stage (4-7 age). *MSKU Fac J Edu*, 5(2), 31-42.
- Uysal, G., Düzükaya, D., Bozkurt, G., & Çöplü, Y. (2018). Investigation of the nursing perception of children in hospital with drawing method: projective research. *Mersin Uni J Health Sci*, 11(1),62-74.
- Ünal, A., Akbayrak, N., & Uluğ A. (2002). About children's nursing thoughts. *J Res Nurs Develop*, 4(2),60-66.

- Yavuzer, H. (2005). *Child with pictures*, İstanbul: Remzi Booksore.
- Yayan, G., & Kan, N. (2019) The effects of picture therapy on children with 7-12 age group leukemia. *J Dialectol Nat Soc Sci*, 20,81-110.
- Zhang, L., Zhang, P., & Chen, W. (2024). Overview of patients with hemophilia in china: demographics, diseases, treatment, and health status. *Patient Prefer Adherence*, 18,101-109.

Evaluation of infection status of patients with acute renal failure according to catheter placement site: a retrospective study

Ülkü Yılmaz¹, Nuray Enç²

¹Department of Nursing, Faculty of Health Sciences, İstanbul Beykent University, İstanbul, Türkiye

²Department of Nursing, Florence Nightingale Faculty of Nursing, İstanbul University-Cerrahpaşa, İstanbul, Türkiye

Received: 24/10/2024

Accepted: 29/11/2024

Published: 20/12/2024

Cite this article: Yılmaz, Ü., & Enç, N. (2024). Evaluation of infection status of patients with acute renal failure according to catheter placement site: a retrospective study. *J Nurs Care Res.* 1(4),95-100.

Corresponding Author: Ülkü Yılmaz, ulkyilmz@gmail.com

ABSTRACT

Aims: Acute renal failure (AKI) develops frequently in intensive care units, and hemodialysis (HD) is used for its treatment. Infections of catheters used in HD procedures directly affect patient care, workload, and cost. This study aimed to determine the infection status according to catheter placement in patients who developed ABF and received HD treatment.

Methods: The study was designed as a retrospective-descriptive study. The data collection form created by the researcher was applied to the files of 362 patients who completed their treatment in the intensive care unit of a hospital in İstanbul between November 2018 and October 2019. Ethics committee and institutional approval were obtained, and the study was initiated.

Results: Infection was observed in 52% of the femoral region, 27.1% in the jugular region, and 20.3% in the subclavian region. Diabetes (49.2%), hypertension (42.4%), intensive care unit length of stay of 15 days or more, use of 1% chlorhexidine in catheter care, and infection status were significantly different ($p < 0.05$).

Conclusion: The femoral region has the highest rate of infection. Considering this rate, nurses should carefully perform catheter care and infection follow-up and take necessary precautions to prevent infection to reduce workload and catheter losses.

Keywords: Acute renal failure, catheter infections, central venous catheter care, hemodialysis catheters, hospital infections

*The abstract was presented at the İstanbul Beykent 4th International Health Sciences Research Days Congress

INTRODUCTION

Acute renal failure (AKI) is a clinical picture in which blood urea nitrogen (BUN) and creatinine values increase, and urine output decreases due to a rapid and severe decrease in the glomerular filtration rate. The development of AKI can occur within hours or weeks. Etiologic causes are listed as economic status, environmental factors, and age (Enç, 2020). Prerenal, renal, and post-renal problems are the causes of AKI (Yılmaz & Enç, 2023). Although it is a common complication, it is seen in 5-20% of intensive care unit patients. The mortality rate is between 35-65%. The occurrence of AKI in patients hospitalized in the intensive care unit poses a severe problem for patients, prolongs the length of hospitalization, and increases the cost of treatments such as dialysis (Gerkuş & Sivrikaya, 2020). Since AKI is a reversible clinical picture, hemodialysis (HD) is performed if the factors causing failure cannot be treated with medication (Enç, 2020). A suitable vascular access route is needed to perform HD. Temporary HD catheters are used in patients in urgent need of HD. The internal jugular vein is the most commonly used catheterization site, although femoral and subclavian veins are also used. Catheters have an essential

place among vascular access alternatives and have life risks during insertion and significant complications in long-term use (Altındal et al. 2021). Infections are one of the most severe complications of prolonged catheter use. Multiple factors contribute to their occurrence, including the effect of pathogenic microorganisms, the duration of hospitalization, whether the catheter is inserted electively, the length of catheter use, catheter care, and location (Koştu & Ok, 2021). Bacteremia rate differs according to the catheter placement site. The femoral catheter is the highest. Most infections that are important in catheter losses occur due to the settlement of microorganisms in the skin at the catheter entry site and tip. Risk factors vary according to the type of catheter, number of lumens, insertion site, duration of use, and type of catheterization (Yüksel et al. 2020). Studies conducted to prevent catheter infections consider the catheter insertion procedure and catheter care and use essential. Despite refurbished catheters, staff training and aseptic technique are the most important ways to prevent catheter infection (Yüksel et al. 2020; Kiray et al. 2019). Central venous catheter (CVC) care and placement packages created by different

disciplines reduce the incidence of catheter infections. The antiseptic solution used in care also plays a vital role in catheter infections (Kıray et al. 2019). In this study, considering that catheter infections are an essential cause of catheter loss and catheter placement affects the infection rate, we aimed to investigate the infection status according to catheter placement in patients with acute renal failure receiving hemodialysis treatment.

Aim of the Work

This study aimed to investigate the infection status of patients with acute renal failure receiving hemodialysis treatment according to catheter placement.

METHODS

Ethical Aspect of Research

Permission was received from the İstanbul Beykent University Clinical Researches Ethics Committee (Date: 01.02.2019, Decision No: 2011-KAEK-50) and the Health Directorate. All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

The study was planned as a retrospective cross-sectional descriptive study.

Research Questions

- Is there a significant difference between catheter infection and sociodemographic characteristics of patients with hemodialysis catheters?
- Is there a significant difference between catheter infection and the location of the hemodialysis catheter?

Place and Time of Research

The study was conducted in the cardiovascular surgery intensive care unit of a training and research hospital in İstanbul between November 2018 and October 2019.

Population and Sample of the Research

The study population consisted of patients who were treated in the intensive care unit of a thoracic and cardiovascular surgery training and research hospital in İstanbul for one year, diagnosed with AKI, and received catheter HD treatment. A total of 362 patient files were analyzed, and the study was completed.

Method of Data Collection

A patient identification form was used to analyze the patient files. This form obtained demographic characteristics, systemic diseases, body-mass index (BMI), antibiotic use, surgical procedure site, use of ultrasound during catheter insertion, number of insertions, emergency or elective insertion, reason for change, frequency of care, antiseptic used in care, duration of intensive care unit stay, use of mechanical ventilator, and discharge information.

Analysis and Evaluation of Data

In the biostatistical analysis of the data obtained with the Patient Identification Form, the criteria were defined with mean, standard deviation, frequency, and percentage values. Chi-square and Fisher's exact probability tests were used

to compare frequencies and percentages between groups. Student's t-test was used to compare the means of normally distributed variables between two groups. A significance limit of $p < 0.05$ was taken for interpretation. SPSS (version: 23) package program was used for biostatistical analysis.

RESULTS

Table 1 shows the frequency distribution of the subjects ($n=362$) included in the study. The mean age of the individuals included in the study was 63 years, and according to the analysis performed with student's t-test, no significant difference was found between infection status and mean age ($p=0.669$). In the study, 59.9% of the cases were male, and 40.1% were female, and there was no significant difference between gender (male/female) and the presence of infection ($p=0.291$). 79.6% of the cases were married, 20.4% were single, 13.8% were literate, 46.7% were in primary school, 17.1% were in secondary school, 17.7% were in high school, and 4.7% were in university and above. 15.2% were employed, 55.2% were retired, 29.6% were housewives, and all had health insurance. According to the presence of systemic diseases, 52.8% had systemic diseases, 26% had diabetes, and 29.3% had hypertension. Regarding BMI, 7.7% were underweight, 73.5% were average, and 18.8% were overweight or obese.

Variables	Frequency	Percentage	
Gender	Male	217	59.9
	Female	145	40.1
Marital status	Married	288	79.6
	Single	74	20.4
Education	Literate	50	13.8
	Primary school	169	46.7
	Middle school	62	17.1
	High school	64	17.7
	University and above	17	4.7
Employment status	Employee	55	15.2
	Retired	200	55.2
	Housewife	107	29.6
Health insurance	Yes	362	100.0
Systemic disease	Yes	191	52.8
	No	171	47.2
DM	Yes	94	26.0
	No	268	74.0
Hypertension	Yes	106	29.3
	No	256	70.7
BMI	Weak	28	7.7
	Normal	266	73.5
	More and above	36	18.8

DM: Diabetes mellitus, BMI: Body-mass index

Table 2 shows the difference between information on catheter infection and systemic disease and the treatment process of the study's patients. According to the Chi-square test, there is a significant difference between diabetes, BMI, surgical procedure, intensive care unit stay duration, femoral catheter, chlorhexidine, and presence of catheter infection ($p < 0.05$). The frequency of diabetes mellitus (DM) in the infected

subgroup (49.2%) was higher than the DM level in the non-infected subgroup (21.5%), which is a significant difference finding. When we look at the subgroup with infection, the rate of infection is higher in those with normal BMI compared to those with underweight and overweight. When the presence of surgical procedures and infection are analyzed, this rate (100%) is high. When the subgroups of the intensive care unit length of stay variable were evaluated regarding infection, the infection rate in patients hospitalized for five days or more was 100%. No significant difference was found between the distributions of the subgroups for the variables of whether the patient was connected to a mechanical ventilator and antibiotic use ($p>0.05$).

Table 2. The difference between catheter infection and systemic disease and treatment process

	No infection		Infection present		c ²	p
	n	%	n	%		
DM						
No	238	78.5	30	50.8	19.71	0.0001
Yes	65	21.5	29	49.2		
BMI						
Weak	19	6.3	9	15.3	13.86	0.001
Normal	234	77.2	32	54.2		
More and above	50	16.5	18	30.5		
Surgical operation						
No	53	17.5	0	0	12.09	0.001
Yes	250	82.5	59	100		
Antibiotic use						
No	8	2.6	0	0	0.4*	
Yes	295	97.4	59	100		
Duration of intensive care hospitalization						
≤4 days	88	29.0	0	0	22.63	0.0001
≥5 days	215	71.0	59	100		
Mechanical ventilator						
No	12	4.0	0	0	0.2*	
Yes	291	96.0	59	100		
Catheter placement						
Jugular	142	46.9	16	27.1	66.12	0.0001
Subclavian	132	43.6	12	20.3		
Femoral	29	9.6	31	52.5		
Catheter care solution						
1% chlorhexidine	173	57.1	43	72.9	5.11	0.02
10% povidone iodine	130	42.9	16	27.1		

DM: Diabetes mellitus, BMI: Body-mass index, *Fisher

Table 3 shows the difference between catheters inserted in the jugular region and catheter infection in the patients included in the study. According to the Chi-square test, there was a significant difference between diabetes and duration of intensive care unit stay and the presence of catheter infection ($p<0.05$). The frequency of DM in the infected subgroup (43.8%) was similar to the DM level in the non-infected subgroup (16.2%). When the subgroups of the intensive care unit length of stay variable were evaluated regarding infection, the infection rate in patients hospitalized for five days or more was 100%. No significant difference was found

between the distributions of the subgroups for the variables of whether the patient was connected to a mechanical ventilator, the presence of surgical procedures, and antibiotic use ($p>0.05$). Statistical interpretation cannot be made due to using povidone-iodine in caring for all catheters inserted in the jugular region.

Table 3. The difference between catheter infection and systemic disease and treatment process of catheter inserted in the jugular region

	No infection		Infection present		c ²	p
	n	%	n	%		
DM						
No	119	83.8	9	52.6	5.41	0.02
Yes	23	16.2	7	43.8		
Surgical operation						
No	22	15.5	0	0	0.13*	
Yes	120	84.5	16	100		
Antibiotic use						
No	4	2.8	0	0	1.00*	
Yes	138	97.2	16	100		
Duration of intensive care hospitalization						
≤4 days	38	26.8	0	0	4.26	0.04
≥5 days	104	73.2	16	100		
Mechanical ventilator						
No	8	5.6	0	0	1.00*	
Yes	134	94.4	16	100		
Catheter care solution						
1% chlorhexidine	-	-	-	-	-	-
10% povidone iodine	142	100	16	100	-	-

*Fisher, DM: Diabetes mellitus

Table 4 shows the difference between catheters inserted in the subclavian region and catheter infection in the patients included in the study. According to the Chi-square test, there was a significant difference between the duration of intensive care unit stay and the presence of catheter infection ($p<0.05$). When the subgroups of the intensive care unit length of stay variable were evaluated regarding infection, the infection rate was 100% in patients hospitalized for five days or more. No significant difference was found between the distributions of the subgroups for the variables of diabetes, use of a mechanical ventilator, presence of surgical procedure, and antibiotic use ($p>0.05$). Statistical interpretation cannot be made because povidone-iodine is used for all catheters inserted in the subclavian region.

Table 5 shows the difference between catheters inserted in the femoral region and catheter infection in the patients included in the study. According to the Chi-square test, there was a significant difference between diabetes and duration of intensive care unit stay and the presence of catheter infection ($p<0.05$). The frequency of DM in the infected subgroup (61.3%) was similar to the DM level in the non-infected subgroup (20.7%). When the subgroups of the intensive care unit length of stay variable were evaluated regarding infection, the infection rate in patients hospitalized for five days or more was 100%. No significant difference was found between the distributions of the subgroups for the variables of whether the patient was connected to a mechanical ventilator, the presence of surgical procedures, and antibiotic

use ($p>0.05$). Statistical interpretation cannot be made due to the use of chlorhexidine in the care of all catheters inserted in the femoral region.

Table 4. The difference between catheter infection and systemic disease and treatment process of catheter inserted in subclavian region

	No infection		Infection present		χ^2	p
	n	%	n	%		
DM						
No	96	72.7	9	75.0	0.0001	0.9
Yes	36	27.3	3	25.0		
Surgical operation						
No	29	22.0	0	0	0.12*	
Yes	103	78.0	12	100		
Antibiotic use						
No	2	1.5	0	0	1.00*	
Yes	130	98.5	12	100		
Duration of intensive care hospitalization						
≤4 Days	40	30.3	0	0	3.63	0.06
≥5 Days	92	69.7	12	100		
Mechanical ventilator						
No	3	2.3	0	0	1.00*	
Yes	129	97.7	12	100		
Catheter care solution						
1% chlorhexidine	-	-	-	-	-	-
10% povidone iodine	132	100	12	100	-	-

*Fisher, DM: Diabetes mellitus

Table 5. The difference between catheter infection and systemic disease and treatment process of catheter inserted in femoral region

	No infection		Infection present		χ^2	p
	n	%	n	%		
DM						
No	23	79.3	12	38.7	10.16	0.001
Yes	6	20.7	19	61.3		
Surgical operation						
No	2	6.9	0	0	0.22*	
Yes	27	93.1	31	100		
Antibiotic use						
No	2	6.9	0	0	0.23*	
Yes	27	93.1	31	100		
Duration of intensive care hospitalization						
≤4 days	10	34.5	0	0	10.46	0.001
≥5 days	19	65.5	31	100		
Mechanical ventilator						
No	1	3.4	0	0	0.50*	
Yes	28	96.6	31	100		
Catheter care solution						
1% chlorhexidine	29	100	31	100	-	-
10% povidone iodine	-	-	-	-	-	-

*Fisher, DM: Diabetes mellitus

DISCUSSION

Many precautions and rules must be followed to prevent infection in hemodialysis catheters. Among these is selecting the most appropriate catheter placement site. The right internal jugular vein is the most appropriate site for temporary hemodialysis catheter placement (Kotwal et al. 2022). In this study, 362 patient files with temporary HD catheters diagnosed with ABF and receiving HD therapy were included. The mean age of the individuals included in the study was 63 years, and according to the analysis results, no significant difference was found between infection status and mean age ($p=0.669$). However, in the literature, being over 60 is considered a risk factor for infection (Yuan et al. 2022). In our study, there was a significant difference between diabetes, BMI, surgical procedure and duration of intensive care unit stay, femoral catheter and chlorhexidine, and the presence of catheter infection ($p<0.05$). When examined separately according to catheter placement sites, a significant difference was found between the presence of catheter infection and having a diagnosis of diabetes and the duration of intensive care unit stay for catheters inserted in the femoral and jugular regions ($p<0.05$). There was a significant difference between the duration of intensive care unit stay and the presence of catheter infection in catheters inserted in the subclavian region ($p<0.05$). A meta-analysis found a significant relationship between DM, having a catheter in the femoral region, and infection (Guo et al. 2024). This study found a significant association between DM and infection in catheters inserted in the femoral and jugular regions. Excess BMI (>25) is a risk factor for catheter placement and infection. However, in our study, a significant correlation was found between the occurrence of infection and average BMI ($p<0.05$).

The risk of catheter-related infection appears to be higher in individuals with femoral catheters (Jiang et al. 2016). In this study, the femoral region had the highest infection rate, with 52.5% among catheter sites. According to the study by Zhang et al. (2017) in China, the infection rate was 36.07% in the jugular region, 35.5% in the femoral region, and 30.63% in the subclavian region. In the same study, as a result of the analysis using multiple Logistic regression analysis, the femoral region was found to be more risky in terms of infection than the subclavian region ($p=0.030$) (Zhang et al. 2017). Nurses should evaluate catheters in the femoral region more carefully for signs of infection.

Duration of intensive care unit stay is an influential risk factor for catheter infections. In a study, it was found that there was a significant difference between the duration of intensive care stay and the development of infection (Tanrıverdi et al. 2021). It is similar to our study. Considering the presence of surgical procedures and the presence of infection, it is seen that this rate (100%) is high (Table 2). The individuals included in the study were patients who underwent cardiovascular surgery. Cardiac surgery is a complex surgery and leads to a weakened immune system and increased risk of infection (Subramani, 2020). Microorganisms can quickly enter the catheter site of patients with weakened immune systems because the skin integrity is disrupted. The catheter entry site of operated patients should be regularly evaluated for signs of infection. (Reindl-Schwaighofer et al. 2020).

Since all catheters in our study were serviced twice daily, no statistical interpretation can be made. It is known that catheter dressings should be performed at certain intervals, but in cases of loosening, wetting, contamination, bleeding, etc., maintenance should be performed again (National Vascular Access Management Guide 2019). The retrospective nature of our study and insufficient catheter maintenance records limit the comments on this issue (İşeri et al. 2019). The catheterization procedure was performed in all cases without the use of USG. For this reason, statistical interpretation cannot be made.

When 1% chlorhexidine and 10% povidone-iodine used in catheter care in our study were evaluated in terms of infection status, there was a significant difference in favor of 1% chlorhexidine ($p=0.020$). In our study, the femoral catheter was maintained with 1% chlorhexidine, and the jugular and subclavian catheters were maintained with 10% povidone-iodine. In addition, all catheter care was performed using a gauze dressing. In a study, it was found that 20% of patients treated with 1% chlorhexidine gluconate, 9.5% of patients treated with 2% chlorhexidine gluconate, 13.6% of patients treated with 4% chlorhexidine gluconate and 58.3% of patients treated with 70% alcohol had growth (Özen et al. 2020). The study by Aslan et al. showed that the infection rate decreased significantly in the group dressed with chlorhexidine gluconate-impregnated nursing dressings (Aslan et al. 2020). In studies with a high level of evidence, it was found that most infections detected in adult intensive care units developed through catheters inserted in the femoral region, and it was concluded that the use of the femoral region should be avoided (Acun & Çalışkan, 2021). Our study used 1% chlorhexidine gluconate only in catheters inserted in the femoral region. Therefore, it is not possible to compare with other sites. In the existing literature with a high level of evidence, it is reported that chlorhexidine gluconate with a concentration of $>0.5\%$ containing 70% alcohol is more effective in skin contamination than alcohol-containing antiseptic solutions and povidone-iodine in terms of skin antisepsis (Acun & Çalışkan, 2021).

Frequent and inappropriate antibiotic use, comorbid diseases, metabolic disorders, and ventilator use increase the development of infection (Şahin et al. 2019). There was no correlation between antibiotic use, mechanical ventilator use, and the presence of infection in the patients included in our study.

When the studies on catheter care are examined, the common opinion is the use of chlorhexidine as a skin absorbent. The appropriate patient profile recommends transparent drapes, hand hygiene, and maximum sterile barrier precautions. In our study, 1% chlorhexidine was used only on femoral catheters, and all dressings were gauze. We could not obtain information on whether maximum sterile barriers were used during maintenance and whether more than two catheters were maintained in one day.

Limitations

The incidence of infection can be reduced by implementing interventions with proven efficacy in preventing infections. Lee et al. (2018) showed that catheter-related infections decreased when care packages, including hand hygiene, sterile precautions, chlorhexidine use, and selecting the

appropriate site for catheter placement were preferred. In the study conducted by Yazıcı & Bulut (2018), an infection prevention package was applied to patients hospitalized in the anesthesiology intensive care unit, and the results of this study were similar to the study conducted by Lee et al. (2018). Preventing catheter infection is one of the indicators of quality nursing care. With quality nursing care, the nurse workload decreases, and patients' hospitalization duration decreases (Kurt, 2018). These practices effectively reduce infection, shorten the length of hospital stay, reduce costs, and positively affect mortality and morbidity by reducing the incidence of infection. During the data collection process, it was impossible to follow and comment on the catheter care process due to the nature of the retrospective study. This was one of the limitations of our study.

CONCLUSION

In this study, hemodialysis catheters placed in the femoral region had the highest infection rate. Many factors, such as patient-specific factors, duration of hospitalization, and the presence of surgical procedures, affect this rate. Taking the necessary precautions will increase the quality of care by reducing catheter losses and the nurse's workload. Various nursing care practices affect central venous catheter-associated infections and are used to prevent infection. It is recommended that healthcare professionals conduct clinical trials with a high level of evidence investigating the effectiveness of these nursing care practices on infection, prepare clinical protocols that can guide central venous catheter care, and monitor these protocols regularly.

3 keypoints;

- Infection in hemodialysis catheters used to treat acute renal failure remains essential.
- The incidence of infection varies according to catheter placement.
- Taking the necessary precautions will increase the quality of care by reducing catheter losses and the nurse's workload.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of the İstanbul Beykent University Clinical Researches Ethics Committee (Date: 01.02.2019, Decision No: 2011-KAEK-50).

Informed Consent

Because the study was designed retrospectively, no written informed consent form was obtained from patients.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

REFERENCES

- Acun, A. & Caliskan, N. (2021). Prevention of central catheter-associated bloodstream infections in adult intensive care units: a systematic review. *Selcuk Uni Med J*, 37,4. doi:10.30733/std.2021.01512
- Altındal, F., Kayabaşı, H., Şit, D., Yeşil, E.E., Yılmaz, F., Kızılay, Y. & Karakoç A. (2021). Vascular access preferences in patients undergoing emergency hemodialysis: a single center experience/vascular access preferences in patients undergoing emergency hemodialysis: a single center experience. *J Nephrol Nurs*, 16(2),54-59. doi:10.47565/ndthdt.2021.32
- Aslan, N., Yıldızdaş, D., Menemencioglu, A., Korkmaz, F., Horoz, Ö.Ö. & Gündeşlioğlu, Ö.Ö. (2020). Comparison of standard care drape and care drape containing chlorhexidine gluconate in terms of preventing catheter-associated bloodstream infection in our pediatric intensive care unit. *J Pediatr Emerg Intensive Care Med*, 2020;7(1):24-29. doi:10.4274/cayd.galenos.2019.75547
- Enç, N. (Ed.). Internal Medicine Nursing. 2020. İstanbul, Nobel Medical Bookstores. <https://dergipark.org.tr/en/pub/sabited/issue/79593/1250905>
- Gerkuş, Ş. & Sivrikaya, S.K. (2020). Acute renal failure in intensive care units and nursing management. *J Intens Care Nurs*, 24(2),150-156. <https://dergipark.org.tr/en/pub/ybhd/issue/56840/751991>
- Guo, H., Zhang, L., He, H. & Wang, L. (2024). Risk factors for catheter-associated bloodstream infection in hemodialysis patients: a meta-analysis. *PLoS One*, 27;19(3),e0299715. doi:10.1371/journal.pone.0299715
- İşeri, A., Çınar, B., Düzkaya, D.S., Sözeri, E., Uğur, E., Baykara, F. & İşçimen, R. (2019). National vascular access management guideline. *J Hospital Infect*, 23(1),1-54.
- Jiang, Z.H., Liao, Y., Wang, Q.S., Quan, H.J. & Fu, H. (2016). Analysis and intervention of risk factors for hemodialysis catheter associated bloodstream infection in ICU. *Chinese J Nosocomiol*, 26(16):3824-3826. doi:10.1371/journal.pone.0299715
- Kıray, S., Yıldırım, D., Özçiftçi, S., Korhan, EA. & Uyar M. (2019). Central venous catheter care and infection: a systematic review. *Turk J Intens Care*, 17(2),60. doi:10.4274/tybd.galenos.2019.02418
- Koştü, N. & Ok, D. (2021). Nursing care of hemodialysis patient with catheter site infection according to functional health patterns: case report. *J Nurs Sci*, 4(2),106-113.
- Kotwal, S., Cass, A., Coggan, S., Gray, N. A., Jan, S., McDonald, S., Polkinghorne, K. R., Rogers, K., Talaulikar, G., Di Tanna, G. L., Gallagher, M., & REDUCTION Investigators (2022). Multifaceted intervention to reduce haemodialysis catheter related bloodstream infections: REDUCTION stepped wedge, cluster randomised trial. *BMJ (Clinical Research ed.)*, 377,e069634. doi:10.1136/bmj-2021-069634
- Kurt, B. (2018). Evidence-based nursing practices for the prevention of central venous catheter infections. *J Adnan Menderes Uni Fac Health Sci*, 2(3),148-154.
- Lee, K. H., Cho, N. H., Jeong, S. J., Kim, M. N., Han, S. H., & Song, Y. G. (2018). Effect of central line bundle compliance on central line-associated bloodstream infections. *Yonsei Med J*, 59(3),376-382.
- Özen N., Köse T. & Terzioğlu F. (2020). Evidence-based practices in preventing central venous catheter infections: information of intensive care nurses. *Turk J Intensive Care*, 18,2. doi:10.4274/tybd.galenos.2019.25991
- Reindl-Schwaighofer, R., Matoussevitch, V., Winnicki, W., Kalmykov, E., Gilbert, J., Matzek, W. & Sengölge G. (2020). A novel inside-out access approach for hemodialysis catheter placement in patients with thoracic central venous occlusion. *Am J Kidney Dis*, 75(4),480-487. doi:10.1053/j.ajkd.2019.08.024
- Subramani, S. (2020). The current status of EuroSCORE II in predicting operative mortality following cardiac surgery. *Ann Cardiac Anaesthes*, 23(3),256-257. doi:10.4103/aca.ACA_32_19
- Şahin, A.R., Yıldız, B.T., Aktemur, A., Topal, B., Nazik, S. & Ateş S. (2019). Evaluation of infections developed in the neurology intensive care unit of a university hospital. *J Contemporary Med*, 9(1),43-47. doi:10.16899/gopctd.481366
- Tanrıverdi, Z., Yiğitaslan, O., Nemli, S.A., Yurtsever, S.G., Baskurt E., Türe H. & Çelebisoy M. (2021). Evaluation of central venous catheter-related bloodstream infections in neurology intensive care unit. *J Immunol Clin Microbiol*, 6(3),97-108.
- Yazici, G. & Bulut, H. (2018). Efficacy of a care bundle to prevent multiple infections in the intensive care unit: a quasi-experimental pretest-posttest design study. *Appl Nurs Res*, 39:4-10.
- Yılmaz, Ü. & Enç, N. (2023). Effects of COVID-19 on the renal system: acute renal insufficiency and nursing care. *Abant J Health Sci Technol*, 3(2),39-48.

Yuan, X.P., Cheng, Z.T., Liu, G.X., Jiang, H.W. & Cheng, X. (2022). Construction of risk prediction model of catheter-related bloodstream infection for long-term hemodialysis patients. *Chin J Nosocomiol*, 32(01),61-65.

Yüksel, E., Kaya, Ş. & Günay, E. (2020). Evaluation of catheter-related bloodstream infections in hemodialysis patients. *Dicle Med J*, 47(3),665-670. doi:10.5798/dicletip.800259

Zhang, M., Xu Y., Jiang, Z., Qian J., Zhang, Z. & Sun, N. (2017). Study on risk factor of central venous catheter infection in ICU: 1 160 patients report. *Zhonghua Wei Zhong Bing Ji Jiu Yi Xue*. 29(12),1082-1086. doi:10.3760/cma.j.issn.2095-4352.2017.12.006

Use of simulation in psychiatric nursing education: a systematic review

 Hilal Merve Belen¹,  Gamze Sarıkoç²

¹Department of Nursing, Faculty of Health Sciences, Lokman Hekim University, Ankara, Türkiye

²Department of Psychiatric Nursing, Gülhane Faculty of Nursing, University of Health Sciences, Ankara, Türkiye

Received: 04/11/2024

Accepted: 01/12/2024

Published: 20/12/2024

Cite this article: Belen, H. M., & Sarıkoç, G. (2024). Use of simulation in psychiatric nursing education: a systematic review. *J Nurs Care Res.* 1(4),101-105.

Corresponding Author: Hilal Merve Belen, hilal.belen@lokmanhekim.edu.tr

ABSTRACT

Aims: The use of simulation and standardized patient practice has increased in nursing undergraduate education in recent years, but limited research has been conducted on the effect of appropriate simulation and standardized patient in the development of knowledge and confidence in psychiatric nursing practice education. The aim of this systematic review is to review the studies on the use of simulation and standardized patient in psychiatric nursing practice education and to systematically examine the results of these studies.

Methods: The study was conducted using PubMed, Science Direct, Web of Science, EBSCO, and Scopus databases. The keywords 'graduation', 'psychiatric nursing', 'education', 'simulation', 'standard patient' were used in the search, and the articles published in the last 10 years, the full text of which was accessed and in English, were analyzed.

Results: The included studies were conducted between 2013 and 2023, and simulation-standardized patient practice with structured scenarios of suicide attempt, obstetrics, pediatrics, and mental health, role-playing, communication skills, acute mental health care, family-centered care, generalized anxiety disorder, therapeutic communication, and dependent individuals was used in the studies. In the studies, it was determined that simulation-standardized patient practice is an effective practice method in developing communication skills competence. In addition, it was found that the standard patient simulation application had a positive reflection on students' mental health care in the clinical environment.

Conclusion: In this systematic review, it is noteworthy that although simulation and standardized patient practice in psychiatric nursing practice education have an important contribution to the development of psychiatric nursing skills, research is limited. In this direction, it is important to conduct experimental studies on simulation and standardized patient practice in psychiatric nursing education.

Keywords: Psychiatric nursing, simulation, standardized patient, education

*This study was presented as an oral presentation at the 7. International 11. National Psychiatric Nursing Congress, 18-20 October 2023.

INTRODUCTION

Psychiatric nursing is defined as a discipline that combines knowledge, experience, nursing skills, biological and social science data, and the therapeutic use of the self that plays a critical role in the processes of protecting, promoting, and treating individuals' mental health. This field requires not only an education based on theoretical knowledge but also an understanding of complex human behavior, empathy, and the development of effective therapeutic relationships. The main purpose of psychiatric nursing education is to train professionals who will contribute to the processes of protecting and improving mental health and contributing to the treatment and rehabilitation processes in cases where mental health is impaired by using the principles, concepts, and processes that make up this discipline effectively (Özbaş & Buzlu, 2011; Robinson-Smith et al., 2009). In this context,

one of the most important components of the educational process is that students can effectively apply the knowledge and skills they acquire through clinical practice in the real world.

Psychiatric nursing clinical practice aims for students to acquire the skills of establishing a therapeutic relationship with individuals with mental disorders, performing mental status examinations, and providing care. However, this process can often be a source of intense stress and anxiety for students. In the literature, it is emphasized that nursing students carry various prejudices and reservations before starting psychiatric nursing clinical practice, and this is usually due to fear of the unknown (Lehr & Kaplan, 2013; Alshowkan & Kamel, 2016; Brown, 2015). Alshowkan and

Kamel's study revealed that nursing students participating in psychiatric nursing clinical practice initially felt inadequate due to lack of experience and anxiety, but these feelings decreased as they gained experience. It was also stated that this intense anxiety experienced by the students negatively affected their thinking processes and prevented the establishment of a therapeutic relationship and therapeutic use of the self (Alshowkan & Kamel, 2016).

The therapeutic use of the self involves the effective management of emotions and the ability to empathize. This skill is one of the cornerstones of successful nursing care in mental health services. However, students often lack the opportunity to develop and practice these skills before starting clinical practice. Studies show that the most intense stress factors that students face in clinical practice are providing care to patients, communicating with patients' relatives, and coping with the dynamics in clinical settings (Szpak & Kameg, 2013; Olasoji et al., 2020; Alzayvat et al., 2015; Felton & Wright, 2017). Ineffective coping with these stressors has been reported to negatively affect students' learning process and clinical performance.

In this context, the inclusion of clinical simulation in psychiatric nursing education stands out as an important tool to better prepare students for clinical practice. Clinical simulation offers students the opportunity to apply their theoretical knowledge, assess risks, develop therapeutic communication skills, and gain self-confidence in a safe and controlled environment. This method is used especially in psychiatric nursing education as an effective tool to reduce students' anxiety levels and strengthen their therapeutic relationship skills. In addition, these practices have positive results such as increasing awareness of patient safety, developing critical thinking skills, and increasing students' level of preparation for clinical practice (Felton & Wright, 2017; Vandyk et al., 2018). It is noteworthy that studies on the use and effectiveness of clinical simulation in psychiatric nursing education are more limited than these methods, which are widely used in other nursing fields. This systematic review aims to evaluate the simulation modalities used in psychiatric nursing education, the student groups to which these modalities were applied, and the results of these studies.

METHODS

Ethical Approval

Since secondary data were used in this study, ethical approval permission was not required. The rules of research and publication ethics were followed in this article.

Research Design

The 'preferred reporting items for systematic reviews and meta-analyses (PRISMA) checklist' and 'Cochrane' were used as guides in the process of preparing systematic reviews. In this study, studies published in English between January 2013 and December 2023 were retrospectively analyzed. 'PubMed', 'Web of Science', 'Scopus', 'EBSCO', 'Google Scholar' and 'ScienceDirect' were used as data sources. The following keywords were used: "graduation" OR 'psychiatric nursing', 'education' AND 'simulation' OR 'standardized patient'. Filters were applied according to study inclusion or exclusion criteria. The authors evaluated all abstracts for the following inclusion criteria: studies were (a) simulation-standardized patient use in psychiatric nursing practice, (b)

published in peer-reviewed journals between January 2013 and December 2023, and (c) qualitative and quantitative studies, reviews, and systematic reviews published in English. Excluded studies are: (a) gray literature reports such as these, doctoral theses, letters to the editor, committee reports, government reports, and conference proceedings (b) duplicate studies; (c) studies for which full text was not available. The population, intervention, control, outcome, and cluster of controls (PICOs) strategy was used for data screening. The research questions were formed as P: sample group/population, I: simulation-standard patient practice/intervention, C: comparison, P: outcome, S: study design. The sample characteristics and size of each study included in the review (P), the effect of the simulation modality applied at the end of the studies (O), and descriptive studies (S) were evaluated. All characteristics of the included studies are described in Table. As a result of the literature search, 404 studies were found based on keywords. After the first search, 201 duplicates were removed. The authors evaluated the titles and abstracts of the remaining 201 articles, and 122 of them were excluded because they did not meet the inclusion criteria. After a full-text review of the remaining 79 studies, 29 were excluded due to limitations in accessing full details of the study, and 41 were excluded because they were not directly relevant. Finally, 9 studies were included in the current systematic reviews (Figure). The "PRISMA" flowchart was used by the researchers to control the study. The included studies are indicated in the bibliography.

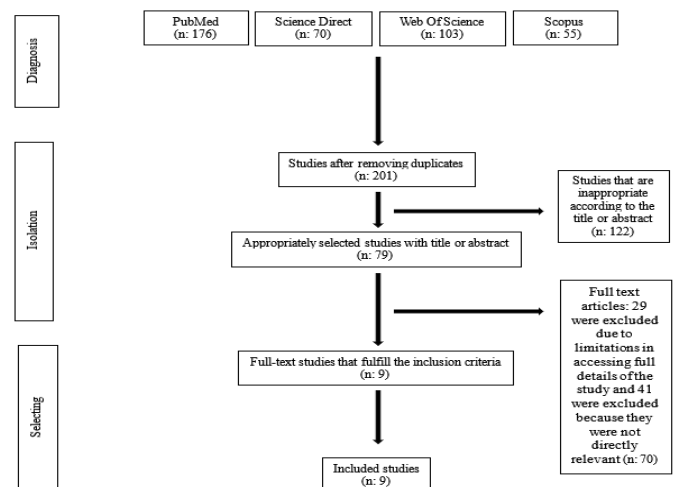


Figure. Flowchart of the studies included in the systematic review (PRISMA-P flowchart)

RESULT

The included studies were conducted between 2013 and 2023; one of the studies was conducted with post-graduate nursing students, one with associate degree nursing students, three with graduate nursing/multidisciplinary teams, and four with undergraduate nursing students. The included studies used structured scenarios on suicide attempts, obstetrics, child mental health, role-playing, communication skills, acute mental health care, family-centered care, generalized anxiety disorder, and dependent individuals. It was determined that two studies were conducted during the pandemic period. In the studies, it was determined that simulation application is an effective application method in developing communication skills competence. In addition, it was found that simulation practice had a positive reflection on students' mental health care in the clinical environment (Table).

Table. Characteristics of the included studies				
Author-year	Objective	Application	Sampling	Conclusion
Clark et al. (2022)	The aim of this study is to compare an innovative interprofessional simulation application to the interruptions caused by the pandemic in nursing education.	Standardized patient-opioid use disorder simulation case study	Interdisciplinary (graduate social worker, mental health and psychiatric nursing students)	Interprofessional simulation was found to be advantageous.
Pfeiffer & Wands (2021)	The aim of this study was to examine the feasibility and learning outcomes of a partnership between nursing and theater departments aimed at creating trained cumulative patient comparisons for psychiatric nursing simulation applications.	Standardized patient-therapeutic communication skills	Undergraduate psychiatric nursing students	Positive simulated patient learning experiences were observed for both groups of students, increasing their confidence.
Kobeissi et al. (2021)	The aim of this study is to enable graduate psychiatric nursing students to utilize their missing clinical hours with the innovative use of virtual simulation.	Virtual simulation (adult-gerontology, family nursing, common ank., major depression)	Graduate nursing students	It was determined that it is advantageous to use virtual simulation as a complementary method in graduate psychiatric nursing clinical education.
Fitzgerald & Ward (2019)	The aim of this study was to examine nursing students' performance in providing family-centered care and empathic communication in pediatric simulation.	Standard patient (family centered care - empathy)	Undergraduate nursing students	The simulated experience was found to benefit students by providing a safe environment to improve therapeutic communication and family-centered care.
Kunst, Mitchell & Johnston (2017)	The aim of this study was to determine whether simulation scenarios are an effective form of learning to improve nursing students' self-reported confidence, knowledge, and ability to manage mental health problems in the acute care setting and to determine whether these benefits can translate into improved capacity in clinical practice.	High reality simulation (patient applying to emergency department)	Undergraduate nursing students	She suggests that simulation training can enable undergraduate nurses to develop confidence, skills and knowledge in the delivery of mental health care in acute care settings.
Yu & Kang (2017)	The aim of this study was to develop a role-play simulation program that incorporates the SBAR technique in nurse-doctor handover, to implement the program, and to analyze its effects on situation, background, assessment and recommendation communication, communication clarity, handover confidence, and educational satisfaction in nursing students.	Standard patient (communication skills)	Undergraduate nursing students	Participants in the role-play simulation program reported high levels of posttest satisfaction and changes in communication clarity. Therefore, the role-play simulation program was an effective educational method for teaching the SBAR technique to nursing students.
Aronowitz et al. (2017)	It was aimed at evaluating the effectiveness of the application of the OSCE exam in nursing education practice.	Standard patient (objective structured physical examination)	Graduate nursing students	Starting with basic cases and increasing complexity throughout the program, OSCEs have been identified as best practice examples.
Lilly, Hermanns & Crawley (2016)	The aim of this study was to evaluate the transfer of knowledge from simulation experience to nursing practice within the scope of psychiatric nursing practice in graduate nursing students.	Standard patient (suicide attempt)	Nursing undergraduates	It was determined that graduate nursing students evaluated simulation practices as useful and comprehensive.
Curl et al. (2016)	The aim of this study was to evaluate the effectiveness of using high-fidelity simulations to replace traditional clinical experiences in obstetrics, pediatrics, intensive care and mental health nursing.	Standard patient (obstetrics, pediatrics, mental health and emergency care scenarios)	Associate degree nursing students	The addition of high-fidelity simulation applications was found to increase pre-graduation competence.

SBAR: Situation, background, assessment, and recommendation, OSCE: Objective structured clinical examination

DISCUSSION

This systematic review primarily focused on simulation modalities used in psychiatric nursing education and the results obtained from these studies. As a result of the studies reviewed, it was seen that structured, standardized patient applications are most frequently preferred in the field of psychiatric nursing. It was determined that the applications gained weight most frequently with the pandemic process and were used in postgraduate education as well as undergraduate education.

Simulation practices in psychiatric nursing have been found to increase students' self-confidence and competence, especially in key areas such as communication skills (Yoo & Yoo, 2003; Leighten & Russell, 2011) and therapeutic communication (Fitzgerald & Ward, 2019). For example, in a study by Yoo and Yoo (2013), an increase in communication clarity and

handover confidence was observed in students participating in a role-play simulation program. Similarly, family-centered care and empathic communication skills improved in pediatric simulations (Wotton et al., 2010). This reveals the potential of creating a safe learning environment for nursing students to provide more effective patient care in clinical settings.

In extraordinary situations such as pandemics, virtual simulations have emerged as an important alternative due to the reduction of clinical hours. Medley et al. (2005) stated that students studying psychiatric nursing at the graduate level were able to complete their missing clinical hours through virtual simulations and that this method was advantageous. It is emphasized that such technological innovations are more flexible and accessible compared to traditional clinical education models.

Furthermore, high-fidelity simulations and structured exams such as OSCE have been observed to improve students' ability to manage complex scenarios (Aronowitz et al., 2017; Kunst et al., 2017). This finding suggests that simulation trainings should become a standard to enhance pre-graduation competencies.

It was observed that post-graduate psychiatric nursing practices were carried out in a multidisciplinary manner. In line with our findings, interprofessional simulation practices provide a great advantage in education because they improve students' ability to collaborate with colleagues from different disciplines. Clark et al. (2022) reported that nursing and social work students achieved positive results by working together in the simulation of opioid use disorder. It can be said that these practices will increase the coordination and effectiveness of healthcare teams.

One of the most important advantages of simulation applications used in psychiatric nursing education is that they enable students to care for individuals with mental health disorders in a safe learning environment. Students experience the practice of managing complex clinical situations such as psychiatric emergencies, interviewing and caring for individuals with mental disorders without jeopardizing patient safety (Clark et al., 2022). In a study conducted by Kunst et al. in 2017, it was reported that students who experienced acute mental health care with high reality simulation increased their confidence and knowledge in mental health care after the intervention. In addition, it was reported that improvement was observed in students' application skills (Kunst et al., 2017). The positive effects of using high validity and standardized patient simulation applications in education such as increasing communication skills, improving clinical decision-making ability and raising awareness on patient safety issues have been emphasized in many studies (Yıldırım et al., 2020; Karabacak, 2013; Şenyuva & Kaya, 2014; Sarıkoç et al., 2018). The positive effects of using high validity and standardized patient simulation applications in education such as increasing communication skills, improving clinical decision-making ability and raising awareness on patient safety issues have been emphasized in many studies (Yıldırım et al., 2016; Karabacak, 2013; Alshowkan & Kamel, 2016).

As a result, it is seen that the use of simulation applications in psychiatric nursing education offers a very advantageous and qualified opportunity to achieve the goals expected to be gained by students.

Limitations

The most important limitation of this study is that few studies could be included in the systematic review.

CONCLUSION

Clinical simulation in psychiatric nursing education is an effective method that supports students to put their theoretical knowledge into practice in a safe environment, improve their therapeutic communication skills and gain self-confidence. In addition to reducing anxiety, this approach strengthens therapeutic relationship skills, increases patient safety awareness and improves critical thinking skills. It also stands out as a tool that strengthens students' preparation for clinical practice. In this systematic review, simulation

modules used in psychiatric nursing education and the results obtained from these applications were discussed. Nine quantitative studies were included in the review and it was determined that structured standardized patient applications were most frequently preferred in the field of psychiatric nursing. At the same time, it was determined that these simulation applications contributed positively to the development of communication skills and mental health services in the clinical environment. In conclusion, it is noteworthy that simulation and standardized patient methods contribute significantly to the development of skills in psychiatric nursing education, but research in this field is limited. In this context, more widespread use of these methods in education will improve the quality of education by increasing both students' therapeutic communication skills and self-confidence.

ETHICAL DECLARATIONS

Ethics Committee Approval

Since secondary data were used in this study, ethical approval permission was not required.

Informed Consent

Because the study was designed retrospectively, no written informed consent form was obtained from patients.

Informed Consent

All patients signed and free and informed consent form.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

REFERENCES

- Alshowkan, A.A., & Kamel N.F. (2016). Nursing student experiences of psychiatric clinical practice: a qualitative study. *J Nurs Health Sci*, 5(3), 60-67.
- Alzayyat A., Almaraira O.A., & Alhelih Y.M. (2015). Stress and coping among nursing students during their practical education in psychiatric settings: a literature review. *Global Advanc Res J Med Medic Sci*. 4(5), 240-247.
- Aronowitz, T., Aronowitz, S., Mardin-Small, J., & Kim, B. (2017). Using objective structured clinical examination (OSCE) as education in advanced practice registered nursing education. *J Profession Nurs*, 33(2),119-125.
- Brown A.M. (2015). Simulation in undergraduate mental health nursing education: a literature review. *Clin Simulation Nurs*, 11(10),445-449.
- Clark, A., Wagner, R., Brubaker, M., Acquavita, S., & Wilder, C. (2022). Pandemic-related disruptions in nursing education: zooming out for an innovative interprofessional simulation. *Academic Med*, 97(3S),S110-S113.
- Curl, E.D., Smith, S., Chisholm, L.A., McGee, L.A., & Das, K. (2016). Effectiveness of integrated simulation and clinical experiences compared to traditional clinical experiences for nursing students. *Nurs Edu Perspect*, 37(2),72-77.

- Felton, A., & Wright, N. (2017). Simulation in mental health nurse education: the development, implementation and evaluation of an educational innovation. *Nurs Edu Pract*, 26,46-52.
- Fitzgerald, M., & Ward, J. (2019). Using standardized actors to promote family-centered care. *J Pediatr Nurs*, 45,20-25.
- Sarıkoç, G., Sarmasoğlu, S., Tüzer, H., Elcin, M., & Burn, C.L. (2018). Intervention for standardized patients' anxiety after "receiving bad news" scenarios. *Clin Simulat Nurs*, 25,28-35.
- Henderson, B., Aitken, R., Lewis, L.K., & Chipchase, L. (2021). Postgraduate nursing students' perceptions of consensus marking with online oral vivas: a qualitative study. *Nurs Edu Today*, 101,104881.
- Kameg, K., Howard, Y.M., Clochesy, J., Mitchell, A.M., & Suresky, J.M. (2010). The impact of high fidelity human simulation on self-efficacy of communication skills. *Issue Mental Health Nurs*, 31(5),315-323.
- Karabacak, Ü. (2013). The use of simulation techniques in nursing education. *Florence Nightingale J Nurs*, 21(2),101-107.
- Kobeissi, M., Christopherson, K., Kearney, K., & Aggarwal, S.S. (2021). Expanding clinical education during a time of crisis: innovative virtual simulation. *Clin Simulat Nurs*, 56,117-120.
- Kunst, E.L., Mitchell, M., & Johnston, A.N. (2017). Using simulation to improve the capability of undergraduate nursing students in mental health care. *Nurs Edu Today*, 50,29-35.
- Lehr, S.T., & Kaplan, B. (2013). A mental health simulation experience for baccalaureate student nurses. *Clin Simulat Nurs*, 9(10),e425-e431.
- Leighen, K., & Russell, J.J. (2011). *Innovative Teaching Strategies in Nursing and Related Health Professions*, editor; Bradshaw M.J. & Lowenstein A.J. (Ed), Innovation in facilitating learning using simulation (239-264). Sudbury-MA: Jones & Bartlett Pub.LLC.
- Lilly, M.L., Hermanns, M., & Crawley, B. (2016). Clinical simulation in psychiatric-mental health nursing: post-graduation follow up. *J Psychosoc Nurs Mental Health Serv*, 54(10),40-46.
- Medley, C.F., & Horne, C. (2005). Using simulation technology for undergraduate nursing education. *J Nurs Edu*, 44(1),31-34.
- Olasoji, M., Huynh, M., Edward K.L., Willetts G., & Garvey L. (2020). Undergraduate student nurses' experience of mental health simulation pre-clinical placement: a pre/post-test survey. *Int J Mental Health Nurs*, 29(5),820-830.
- Özbaş, D., & Buzlu, S. (2011). Psychiatric nursing from past to present. *Florence Nightingale J Nurs*, 19(3),187-193.
- Pfeiffer, K.M., & Wands, L. (2021). Setting the stage for psychiatric mental health nursing education: Outcomes of a simulated patient pilot program. *Clin Simulat Nurs*, 59,75-80.
- Robinson-Smith, G., Bradley P.K., & Meakim, C. (2009). Evaluating the use of standardized patients in undergraduate psychiatric nursing experiences. *Clin Simulat Nurs*, 5(6),e203-e211.
- Şenyuva, E., & Kaya, H. (2014). The use of simulation method in nursing education: advantages and limitations. *Turk Clin J Nurs Sci*, 6(3),220-226.
- Szpak, J.L., & Kameg, K.M. (2013). Simulation decreases nursing student anxiety prior to communication with mentally ill patients. *Clin Simulat Nurs*, 9,13-19.
- Vandyk, A.D., Lalonde, M., Merali, S., Wright, E., Bajnok, I., & Davies, B. (2018). The use of psychiatry-focused simulation in undergraduate nursing education: a systematic search and review. *Int J Mental Health Nurs*, 27(2),514-535.
- Wotton, K., Davis, J., Button, D., & Kelton, M. (2010). Third-year undergraduate nursing students' perceptions of high-fidelity simulation. *J Nurs Edu*, 49(11),632-639.
- Yıldırım, N., & Özdemir, N. (2016). The role of simulation in nursing education. *J Edu Res Nurs*, 13(4),289-294.
- Yoo, S.M., & Yoo, Y. (2003). The effectiveness of standardized patients as a teaching method for nursing fundamentals. *J Nurs Edu*, 42(10),444-448.
- Yu, M., & Ja Kang, K. (2017). Effectiveness of a role-play simulation program involving the sbar technique: a quasi-experimental study. *Nurs Edu Today*, 53,41-47.

Nursing care for children with autism spectrum disorder within the scope of pediatric health and nursing

 Fatma Nur Göker

Department of Nursing, Health Sciences Institute, Kırşehir Ahi Evran University, Kırşehir, Türkiye

Received: 01/12/2024

Accepted: 17/12/2024

Published: 20/12/2024

Cite this article: Göker, F. N. (2024). Nursing care for children with autism spectrum disorder within the scope of pediatric health and nursing. *J Nurs Care Res.* 1(4),106-110.

Corresponding Author: Fatma Nur Göker, gokerf025@gmail.com

ABSTRACT

Autism spectrum disorder is one of the common neurodevelopmental disorders of childhood characterized by repetitive abnormal behavior, limited interests, and impairments in social communication and interactions. Although the prevalence of ASD is increasing day by day, the treatment and rehabilitation of the disease is important. In the process from the diagnosis of the child with ASD to his/her education and inclusion in the community, it is important to educate and guide the family with the awareness of health professionals and to interact with public and private institutions. In this process, the importance of effective nursing care increases. This review includes the clinical presentation, etiology, epidemiology, treatment methods and nursing care of ASD.

Keywords: Autism spectrum disorder, child, nursing care

INTRODUCTION

Autism spectrum disorder (ASD) was first described by Leo Kanner in 1943. Autism, derived from the Greek word “autos”, means “self/self, own”. The word autism was first used in 1908 by Bleuner to describe withdrawal in schizophrenia patients. Kanner (1943) used autism to describe social isolation and language impairments in children without schizophrenia or known psychiatric disorders. These children had repetitive behaviors that accompanied social isolation and linguistic disorders (Kanner, 1943). The American Psychiatric Association’s DSM-5 (The Diagnostic and Statistical Manual of Mental Disorders), which is used in the definition of many psychiatric disorders, divides childhood pervasive developmental disorders into five groups and ASD is included in this group as childhood autism (APA, 2024).

ASD is defined as a neurodevelopmental disorder whose symptoms appear in childhood, characterized by repetitive behaviors, accompanied by social interaction disorder and linguistic disorders, and whose effects last a lifetime (CDC, 2023; Tohum Autism Foundation, 2017). Although autism symptoms are recognized during childhood, the earliest symptoms appear at the age of 2-3 years. The etiology of autism was initially thought to be influenced by genetic factors and the refrigerator mother’s attitude (inadequate bonding, acting distant and indifferent to the child, not providing stimuli), but recent studies have argued that environmental and epigenetic influences may also be involved (Frewer, Gilchrist & Collins, 2021). According to the

centers for disease control and prevention data for 2020, one in every 36 children has ASD (CDC, 2023). Although there is no definitive cure for ASD, treatments and therapies have an effect on reducing the severity of the symptoms of autism (Campisi, Imran & Nazeer, 2018).

A multidisciplinary treatment approach is essential in ASD and another factor in increasing the effectiveness of treatment is early diagnosis. Nurses have important roles in early diagnosis, follow-up and treatment. This review aims to present nursing care in addition to general information about ASD.

CHARACTER OF AUTISM SPEKTRUM DISORDER

Autism is considered as a childhood neurodevelopmental disorder and its symptoms vary according to the developmental period and chronological age. In order to be diagnosed, it is important to recognize the symptoms between 12-18 months after birth. Before 24 months, it is very difficult for parents to recognize the symptoms, but these symptoms can be observed by health professionals such as nurses and doctors during routine examinations (Aydın & Özgen, 2018). The average age of early diagnosis of ASD is reported to be after the 46th month (Tohum Autism Foundation, 2017).

Children diagnosed with autism are defined as “well-behaved babies” in the newborn period. The baby behaves as if it

does not need its mother and is indifferent to strangers in the presence and absence of the mother (Ocakçı & Karakoç 2013). The process of diagnosing autism in children is usually completed 2-3 years after the symptoms appear (CDC, 2023). In the diagnostic process of autism, laboratory results are not sufficient to make a definitive diagnosis and behavioral criteria observed in the child are important (Korkmaz, 2010). Symptoms observed in the early period in children diagnosed with ASD are as follows: inability to smile warmly at others from the 6th month onwards, inability to smile, respond to sounds and other facial expressions from the 9th month onwards, inability to turn to names until the 12th month, inability to point to objects with fingers after the 12th month, no crying or gestures, inability to show interest in objects until the 14th month. month, inability to say a single word from the 16th month, inability to play symbolic games (such as feeding a doll) until the 18th month, inability to form simple two-word sentences after the 24th month (Törget, Özdemir & Selimoğlu, 2010). In later ages, these symptoms can be listed as avoiding eye contact, giving big reactions to small changes, exhibiting repetitive movements, delay in language and speech skills, not answering questions, being overactive or immobile, having obsessive interest, laughing and crying for no reason (Törget, Özdemir & Selimoğlu, 2010). The affect of children with ASD is often incompatible with the social context. Even if they know the rules of courtesy and etiquette, they may have difficulty following these behaviors. Social smiling may be absent. Difficulties with mood regulation may be frequent (Kadak & Meral, 2019) (Table 1).

Behavioral symptoms	
Repetitive movements	Uncontrollable tantrums
Routines or rituals	Obsessed with certain objects
Persistent behaviors	Self-harm
Uncontrollable tantrums	Pica
Obsession with certain objects	Exaggerated emotions
Impulsive behavior	
Communicative symptoms	
Delayed speech or inability to speak	Echolalia
Damage to language or vocabulary	Difficulties understanding instructions and problems
Abnormalities in tone of voice	Difficulties starting and maintaining a conversation
Avoiding eye contact when making requests	
Social symptoms	
Not reacting to your name	Prefer to play games alone
Poor eye contact	Reluctance to make friends
Resistance to touch and contact	Lack of empathy

Table 1. (APA, 2024)

Studies in the literature show that children with autism tend to gain weight (Anagnostou, 2018), have sleep problems, and experience delayed sexual development (Erbaş & Onur, 2022). Studies have shown regression in social speech and communication skills of children with autism after the period of normal development. Regression is seen in 25-30% of children with autism and frequently in the 13-18th months (Reyes, Norbert & Wiggins, 2024).

Children with ASD also have comorbid psychiatric diagnoses. These include attention deficit hyperactivity

disorder, depression, bipolar disorder and anxiety disorders (Bougeard, Picarel-Blanchot & Schmid, 2021). In addition to psychiatric diagnoses accompanying ASD, there are also differential diagnoses such as schizophrenia and specific language disorders. In order to differentiate ASD from other psychiatric diagnoses, DSM-5 diagnostic criteria are important in determining the character of the psychiatric diagnosis.

The diagnostic criteria in DSM-5 for ASD are as follows (Töret, Özdemir & Selimoğlu, 2014).

A. Different social communication and interaction deficits:

- Inability to establish reciprocal social and emotional relationships
- Inadequacy in non-verbal communication behaviors in social interaction
- Inability to establish, maintain and understand relationships

B. Limited, repetitive behavior:

- Stereotypic/repetitive motor movements, object use or speech
- Excessive attachment to routine situations, verbal or non-verbal ritualistic behavior
- Abnormally limited interests in terms of intensity/focus
- Overreactivity or unresponsiveness to sensory stimuli or abnormal interest in sensory aspects of the environment

C. Symptoms must have started at an earlier developmental stage.

D. Symptoms cause clinical impairment in social, occupational or other important areas.

E. These disorders, intellectual disabilities and autism often co-occur.

Etiology

Although the causes of autism are not known exactly, there are ideas suggesting that prenatal complications, genetics, environment and family have an effect (Aydın & Özgen, 2018). The first genetic studies on autism were twin sibling studies. The incidence of autism in identical twins is higher than in fraternal twins (Özören, 2013). A meta-analysis concluded that autism is highly hereditary (74-93%), but non-genetic factors are also important risk factors (Tick, Balton & Happé, 2016). Another study on ASD-specific genetic risk factors shows a significant association between mutations and ASD (Lord, Elsabbagh & Baird, 2018). Bleeding during pregnancy, high blood pressure, premature labor, use of vacuum and forceps at birth, and infections that the mother has during pregnancy are thought to increase the risk of ASD in children (Ocakçı & Karakoç, 2013). In addition, heavy metal poisoning, gluten, casein proteins, vitamins or nutrients containing folic acid, decreased Omega-3 consumption, and increased antibiotic use are among the risk factors for ASD. When the family influence of ASD was examined, it was observed that risk factors such as advanced maternal and paternal age, socioeconomic or educational levels of parents, substance abuse habits in parents, and history of psychiatric illness were effective (Yıldız, 2020). In the first studies on ASD and the effect of the environment, it was observed that

ASD developed as a reaction to the “cold mother” approach. In studies conducted in the following years, it was observed that parents of children with ASD exhibited obsessive behavior and did not have enough emotional interaction with their children (Ocakçı & Karakoç, 2013). In the literature review on vaccines and autism effects, which is one of the common discussions in recent periods, it was found that measles, rubella and mumps vaccines do not increase the risk of ASD, do not trigger ASD in susceptible children and do not increase ASD cases in certain periods (Hviid, Hansen & Frisch, 2019).

Epidemiology

In the first epidemiologic study on the prevalence of ASD, it was thought to be 4/10.000. Although the same diagnostic criteria are used in the prevalence of ASD, there has been a significant increase in recent years (Fombonne, 2005). Without ignoring the effect of risk factors in the increase in ASD prevalence, it is emphasized that increased awareness, easier access to health services, and geographical differences also have an effect (Fombonne, 2005; Lai, Lombardo & Baron-Cohen, 2014). ASD can be seen in every society regardless of race, social group and social status (Aylward, Gal-Szabo & Taraman, 2021). In the United States, the prevalence rate of ASD is 1.7% in children aged 4 years and 1.8% in children aged 8 years. Although the age ratios in European countries vary (e.g. Germany 0.38% in the 0-24 age range, Spain 1.55% in the 3-5 age range), the prevalence rate is 0.38%-1.55%. According to recent world epidemiologic data, the incidence of ASD is higher than 1/100 (Bougeard, Picarel-Blanchot & Schmid, 2021). According to ASD gender distribution studies, the incidence rate in girls is 1/189, while this rate is 1/42 in boys (CDC, 2023).

AUTISM SPECTRUM DISORDER TREATMENT

The priority in the treatment of children with ASD is early diagnosis. In addition to recognizing the signs and symptoms of ASD, it is very important to use screening programs appropriate for the age and scope of the child. When diagnosing children with ASD, the appropriate treatment method is selected after a detailed developmental history and observation of behavioral phenomena (Okoye, Obialo-Ibeawuchi & Obajeun, 2023). The Table 2 below shows the screening programs used.

Table 2. Autism spectrum disorder screening programs
First level screening tools
Early Childhood Autism Screening Scale
Modified Early Childhood Autism Screening Scale
Early screening questionnaire for autistic traits
Communication and symbolic behavior scales-developmental profile
Pervasive developmental disorders screening test I
Early developmental stages questionnaire
Second level screening tools
Communication and symbolic behavior scales behavior sample
Pervasive developmental disorders screening test II
Social communication questionnaire
Two-year-old autism screening test

Table 2 (Çetinoglu, 2019)

There is no definitive treatment method for ASD, which begins in early childhood and whose symptoms persist throughout life. The therapies and treatments aim to improve the child's long-term independent skills, reduce unwanted behaviors, and facilitate school adaptation and peer interactions (Campisi, Imran & Nazeer, 2018).

Pharmacological Treatment

Although the drugs used in the treatment of ASD are not specifically aimed at treating ASD, they facilitate the child's adaptation to social life and education through pharmacotherapy, which has effects such as reducing hyperactivity and increasing attention (Volkmar, Siegel & Woodbury-Smith, 2014). In a randomized controlled study conducted to investigate the effect of risperidone and aripiprazole on children and adolescents, it was concluded that it had a positive effect on irritability and aggression (Fung, Mahajan & Nozzolillo, 2016). This treatment has an effect on the reduction of aggression, irritability, self-harm, and repetitive movements in ASD cases (Kadak & Meral, 2019). Methylphenylidate, which is used in the treatment of Attention Deficit and Hyperactivity Disorder (ADHD), can be used in the treatment of comorbid ADHD in ASD, but the response rate to treatment is lower due to the more frequent side effects in these individuals (Lord, Elsabbagh & Baird, 2018). Evidence-based studies on the specific and comorbid treatment effects of medications used in ASD cases are limited.

Special Education

There is the idea that children with ASD have problems in functions mediated by sensory organs such as learning and interpretation. Within the framework of this idea, multidisciplinary education programs aim to improve the mental and behavioral skills of children with ASD by increasing their sensory functions (Ocakçı & Karakoç, 2013). Activities for balance, position and movement sensations, mostly provided by occupational therapists, are one of the trainings. This training is carried out in a planned and controlled manner. These activities include brushing the body, swinging in a hammock, squeezing the knees and elbows. Trainings for children with ASD are prepared individually, taking into account the strengths and weaknesses of the child, and the family is included in the training to facilitate the integration of the training into social life. The participation of the family in the training is also important for the continuation of the treatment at home. The training content is generally focused on strengthening verbal and non-verbal communication, increasing academic success, and increasing social, motor and behavioral skills (Volkmar, Siegel & Woodbury-Smith, 2014).

NURSING CARE OF AUTISM SPEKTRUM DISORDER

ASD is one of the most common neurodevelopmental disorders in childhood, which is becoming more and more widespread in the world and for which there is no definitive treatment (Hirota & King, 2023). In the process from the diagnosis of the child with ASD to his/her education and inclusion in the community, it is important to educate and guide the family with the awareness of health professionals and to establish interaction with public and private

institutions. Within the scope of pediatric health and diseases, the main goal of the nurse is to ensure the healthy physical, social and intellectual development of children and adolescents in the community, and to identify family and environmental problems at risk that impair child health at an early stage. Early diagnosis of ASD, which is a pervasive developmental disorder, increases the success in treatment. In this context, the role of pediatric nurses in primary health care services gains importance. The nurse should know the growth curve of the 0-6 age group and should be able to detect unusual situations (Aydın & Özgen, 2018). They should guide the child and family with nursing interventions in line with their findings.

After the child is diagnosed with ASD, the nurse should get information from the family about the child's routines, likes and dislikes. The child's basic skills and care practices such as feeding status, toilet and bathing habits should be questioned. The nurse should explain the child's treatment process to the family, involve the family in the treatment and access data on the family's support systems (Magalhães, Lima & Silva, 2020). In order to improve the support systems of the family, the nurse should provide an environment to meet the families of children diagnosed with ASD. The nurse can conduct group assessments with the families who come together. As a result of the evaluations, cooperation should be developed for the economic support needs of the families and the correct orientation studies for the school and treatment problems of the children (Ocakçı & Karakoç, 2013). Nurses who provide nursing care to children with ASD should have sufficient knowledge about ASD. Children with ASD do not like contact and hugging, but they are interested in rhythm and music (Zülkar. Söyünmez & Gürhopur, 2020). With a holistic approach, the nurse provides an effective care to strengthen the bond between mother and child by making the child with ASD embrace with the mother accompanied by music (Ocakçı & Karakoç, 2013). In order to improve the child's language and speech skills, the family is recommended to sing one or two songs a day with their child. Although children are indifferent in the first process, it is seen that they start to speak echolalically in the following processes (Ocakçı & Karakoç, 2013). The nurse should determine the child's need for education and rehabilitation and refer them to the necessary institutions. In these referrals, they should also cooperate with other health professionals if necessary. Communicative and social problems caused by ASD and sudden tantrums may cause difficulties for caregivers (Ravi & Mendonc, 2023).

In situations that require hospitalization or prolonged hospitalization, children with ASD may develop anxiety and anger. This process causes difficulties in nursing care (Gettis, Wittling & Palumbo-Dufur, 2018). Before providing care and treatment for a child with ASD, ways of establishing a secure bond with the child should be explored. The first people to be contacted are families who are the primary caregivers. After obtaining sufficient information from the family, it is important to provide care and treatment considering the clinical symptoms of ASD for the safety of the child and effective care and treatment. Assessment questions that will help in the admission of children with ASD to the clinic are questions aimed at getting to know the child and identifying his/her reactions, such as how your child expresses his/her wishes and needs, what are the situations that increase the

child's anxiety, how the child expresses pain, how the child's best way of communication is (verbal, visual, drawing, etc.) (Kouo & Kouo, 2021). Children with ASD are at risk of injury, as a pediatric nurse, we need to ensure the safety of the patient. Aggression, anger and violence can be seen in children with ASD. It is generally characterized by the incompatibility seen in the change of environment due to the child's lack of development of social adaptation skills. In these cases, the child's behavior should be controlled, his mood should be evaluated, and environmental safety should be ensured. Precautions should be taken against possible risks in case of environmental changes. Hard objects, fragile objects and sharp edges in the environment should be removed from the child. Additionally, children with ASD are in the risk group for physical and sexual abuse. The nurse should inform the family about this. It should be explained that the child should be closely monitored for damage, wounds and scars on his body. Depending on the area of the wounds and marks on the body, places that indicate harassment and abuse should be introduced, brochures should be prepared and education should be given to families (Mughal, Faziyy & Saadabadi, 2022). Children may develop a risk of nutritional imbalance due to picky eating behavior due to ASD. The pediatric nurse should closely follow the growth percentile curve of the child with ASD and prevent possible developmental delay or obesity (Tar, 2021). Families may have difficulty in the caregiver role because they do not have enough information about autism. The pediatric nurse should involve the family in care and treatment by obtaining information about the child's routines, skills, and routines (Magalhães, Lima & Silva, 2020). There are studies supporting the positive effects of nursing care on children with ASD and their families (Ahmed, Muhammed & Ibrahim, 2019; Saied, Sayed & Mohamed 2024). The nursing care provided for children with ASD within the scope of pediatric health and diseases nursing plays a key role for the health of the child and family.

CONCLUSION

Autism spectrum disorder, one of the common neurodevelopmental disorders of childhood, is a difficult-to-diagnose disease with no definitive treatment. Early diagnosis plays an important role in the course of the disease and the quality of life of the child in the future. Early diagnosis of ASD, which is difficult to be recognized by families, increases the chance of early diagnosis as a result of routine examination or careful observation by nurses and physicians. The responsibility of pediatric nurses is very important. Pediatric nurses should be familiar with the character of ASD, closely follow the growth monitoring for each child aged 0-6 years and intervene in abnormal situations. The early identification process will also contribute to ASD incidence and prevalence studies and lead to the elimination of risk factors. Following the diagnostic process, pediatric nurses should prioritize the treatment and rehabilitation systems appropriate to the disease character of the child with ASD. Early treatment and purposeful rehabilitation of ASD, which has no definitive cure, has a high contribution to the child's adaptation to society and academic success. Pediatric nurses should also take initiatives to eliminate obstacles that negatively affect child health in the family. The responsibilities of the nurse in the treatment and follow-up of children with ASD in the clinic are to determine the priorities

by mastering the situations that will prevent the care and treatment of the child due to the character of the disease. As a result, it is important for the nurse, who is a member of a multidisciplinary team, to take part in every stage of the child with ASD and the family to bring the child and the family to the maximum level of well-being.

ETHICAL DECLARATIONS

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

REFERENCES

- Anagnostou, E. (2018). Clinical trials in autism spectrum disorder: evidence, challenges and future directions. *Curr Opin Neurol*, 31(2),119-125.
- Ahmed, H. M., Mohammed, R. E., & Ibrahim, S. R. (2019). Effect of Orem self-care model on school-age children and teenagers with autism and their parents. *The 8th International Scientific Nursing Conference*. In (pp.19-21) 21-22 December. Dubai, United Arab Emirates. <https://bu.edu.eg/staff/samahalrefaa113-publications/40019>
- Aylward, B. S., Gal-Szabo, D. E., & Taraman, S. (2021). Racial, ethnic, and sociodemographic disparities in diagnosis of children with autism spectrum disorder. *J Development Behavior Pediatr*, 42(8),682-689. doi:10.1097/DBP.0000000000000996
- American Psychiatric Association. (2024). Diagnostic and statistical manual of mental disorders (DSM-5[®]). American Psychiatric Association Publishing. doi:10.1176/appi.books.9780890425596
- Aydın, D., & Özgen, Z. E. (2018). Autism spectrum disorder in children and the role of the nurse in early diagnosis. *Gümüshane Uni J Health Sci*, 7(3),93-101.
- Bougeard, C., Picarel-Blanchot, F., Schmid, R., Campbell, R., & Buitelaar, J. (2021). Prevalence of autism spectrum disorder and comorbidities in children and adolescents: a systematic literature review. *Front Psych*, 12,744709. doi:10.3389/fpsy.2021.744709
- Campisi, L., Imran, N., Nazeer, A., Skokauskas, N., & Azeem, M. W. (2018). Autism spectrum disorder. *Br Med Bull*, 127(1),91-100. doi:10.1093/bmb/ldy026
- Centers for Disease Control and Prevention. (2023). Autism spectrum disorder (ASD). Access (August 3 2024): <https://www.cdc.gov/ncbddd/autism/facts.html>
- Erbaş, E., & Onur, K. (2022). A holistic look at sexuality and sexual education of individuals with autism spectrum disorder. *J Dokuz Eylül Uni Buca Fac Edu*, (53),1-16.
- Fombonne, E. (2005). The changing epidemiology of autism. *J Appl Res Intellect Disabilit*, 18(4),281-294. doi:10.1111/j.1468-3148.2005.00266.x
- Frewer, V., Gilchrist, C. P., Collins, S. E., Williams, K., Seal, M. L., Leventer, R. J., & Amor, D. J. (2021). A systematic review of brain MRI findings in monogenic disorders strongly associated with autism spectrum disorder. *J Child Psychol Psych Allied Disciplin*, 62(11),1339-1352. doi:10.1111/jcpp.13510
- Fung, L. K., Mahajan, R., Nozzolillo, A., Bernal, P., Krasner, A., Jo, B., Coury, D., Whitaker, A., Veenstra-Vanderweele, J., & Hardan, A. Y. (2016). Pharmacologic treatment of severe irritability and problem behaviors in autism: a systematic review and meta-analysis. *Pediatrics*, 124-135. doi:10.1542/peds.2015-2851K
- Gettis, M. A., Wittling, K., Palumbo-Dufur, J., McClain, A., & Riley, L. (2018). Identifying best practice for healthcare providers caring for autistic children perioperatively. *Worldviews Evidence-based Nurs*, 15(2),127-129. doi:10.1111/wvn.12278
- Hirota, T., & King, B. H. (2023). Autism spectrum disorder: a review. *J Am Med Assoc*, 329(2),157-168. doi:10.1001/jama.2022.23661
- Hviid, A., Hansen, J. V., Frisch, M., & Melbye, M. (2019). Measles, mumps, rubella vaccination and autism: a nationwide cohort study. *Ann Int Med*, 170(8),513-520. doi:10.7326/M18-2101
- Kadak, M. T. & Meral, Y. (2019). Autism spectrum disorders-what is our current knowledge. *Int J Soc Sci Humanit Stud*, 5-15.
- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2(3),217-250.
- Korkmaz, B. (2010). Autism: clinical and neurobiological features, early diagnosis, treatment and some current developments in the invited author. *Turk Arch Pediatr*, 45(12),1-8.
- Kouo, J. L., & Kouo, T. S. (2021). A scoping review of targeted interventions and training to facilitate medical encounters for school-aged patients with an autism spectrum disorder. *J Autism Develop Disord*, 51(8),2829-2851. doi:10.1007/s10803-020-04716-9
- Lai, M. C., Lombardo, M. V., & Baron-Cohen, S. (2014). Autism. *Lancet*, 383(9920), 896-910. doi:10.1016/S0140-6736(13)61539-1
- Lord, C., Elsabbagh, M., Baird, G., & Veenstra-Vanderweele, J. (2018). Autism spectrum disorder. *Lancet*, 392(10146),508-520.
- Magalhães, J. M., Lima, F. S. V., Silva, F. R. D. O., Rodrigues, A. B. M., & Gomes, A. V. (2020). Nursing assistance to the autistic child: integrative review. *Global Nursing*, 19(58),531-559.
- Mughal, S., Faizy, R. M., Saadabadi, A., & Doerr, C. (2022). Autism spectrum disorder (nursing). *StatPearls*.
- Ocakçı, A. F., & Karakoç, A. (2013). Adaptation and behavior problems in children and nursing approach. Conk Z., Bal Y.H. & Bolışık B. (Ed.). *Pediatric Nursing*. (pp.819-846). Ankara: Academician Bookstore,
- Okoye, C., Obialo-Ibeawuchi, C. M., Obajeun, O. A., Sarwar, S., Tawfik, C., Waleed, M. S., Wasim, A. U., Mohamoud, I., Afolayan, A. Y., & Mbaezue, R. N. (2023). Early diagnosis of autism spectrum disorder: a review and analysis of the risks and benefits. *Cureus*, 15(8),e43226. doi:10.7759/cureus.43226
- Ravi, S. R., & Mendonc, T. L. (2023). Autism spectrum disorder: an overview of early detection, and role of nurses. *RGUHS J Nurs Sci*, 13(1), 11-20. doi:10.26463/rjns.13_1_13
- Reyes, N., Norbert Soke, G., Wiggins, L., Barger, B., Moody, E., Rosenberg, C., Schieve, L., Reaven, J., Reynolds, A. M., & Hepburn, S. (2024). Social and language regression: characteristics of children with autism spectrum disorder in a community-based sample. *J Develop Physic Disabilit*, 36(4),713-728. doi:10.1007/s10882-023-09929-1
- Saied Adam, S., Sayed Ewise, H., Mohamed Barakat, M., & Abdallah Ahmed Shams Eldin, F. (2024). Effect of nursing intervention program on psychosocial problems among family caregivers of children with autism spectrum disorder. *Egypt J Health Care*, 15(2),75-88.
- Tick, B., Bolton, P., Happé, F., Rutter, M., & Rijsdijk, F. (2016). Heritability of autism spectrum disorders: a meta-analysis of twin studies. *J Child Psychol Psychiatry*, 57(5),585-595.
- Tar, E. (2021). The process of diagnosing a child with autism spectrum disorder and their family according to the orem theory of self-care: a case report. *J Curr Nurs Res*, 1(3),126-134.
- Tohum Autism Foundation. (2017). Autism spectrum disorder and special education in Turkey. Access (August 2 2024): http://www.tohumotizm.org.tr/sites/default/files/rapor_tohum_kitap_baski.pdf
- Töret, G., Özdemir, S., Selimoğlu, Ö. G., & Özkubat, U. (2014). Opinions of parents who have a child with autism: autism definitions and causes of autism. *Ankara Uni Fac Edu Sci J Spec Edu*, 15(1),1-14. doi:10.1501/Ozlegt_0000000189
- Volkmar, F., Siegel, M., Woodbury-Smith, M., King, B., McCracken, J., & State, M. (2014). Practice parameter for the assessment and treatment of children and adolescents with autism spectrum disorder. *J Am Acad Child Adolescent Psych*, 53(2),237-257. doi:10.1016/j.jaac.2013.10.013
- Yıldız Miniksar, D. (2020). Investigation of risk factors and dysmorphology in patients with autism spectrum disorder. *Current Pediatrics*, 18(2),220-236. doi:10.32941/pediatri.775269
- Zülkar, Y., Söyünmez, S., Gürhopur, F. D., & Dalgic, A. I. (2020). Investigation of the effects of music activities on social and cognitive development in children with autism spectrum disorders by basing neurophysiological theory. *J Tradit Med Complement Therap*. (pp. 205-20).

A brief overview of the therapeutic alliance: historical, theoretical and contemporary debates

 Tayfun Öz

Department of Psychiatry, Ankara Etilik City Hospital, Ankara, Turkiye

Received: 02/12/2024

Accepted: 17/12/2024

Published: 20/12/2024

Cite this article: Öz, T. (2024). A brief overview of the therapeutic alliance: historical, theoretical and contemporary debates. *J Nurs Care Res.* 1(4),111-114.

Corresponding Author: Tayfun Öz, drtayfunoz@gmail.com

ABSTRACT

The therapeutic alliance has a historical importance in psychiatry, especially in the effectiveness of psychotherapies. The therapeutic alliance is a critical concept that reflects the quality of the relationship between the patient and the therapist in the psychotherapy process and for many clinicians it is the main factor in the patient's recovery. While a strong alliance increases the success of the therapy, in cases of weak alliance, it is difficult to achieve therapeutic goals. Although different psychotherapy approaches position the concept of therapeutic alliance differently, in the future, in-depth exploration of the therapeutic alliance in different contexts and populations will contribute to the scientific knowledge in this field. The therapeutic alliance is a valuable concept not only in psychotherapy, but also in every field of psychiatry, and even wherever there is a physician-patient relationship. In this article, the therapeutic alliance is examined in the historical process, its importance in psychotherapy is discussed, and the prevention of rupture or what to do in case of rupture is explained.

Keywords: Therapeutic alliance, psychotherapy, therapist-patient relationship

INTRODUCTION

The therapeutic alliance is a fundamental concept that refers to the relationship between patient and therapist based on cooperation, trust and common goals. This concept, which plays a critical role in determining the effectiveness of psychotherapy, has a central importance in different therapy approaches. The therapeutic relationship, which Freud first associated with the concept of "transference" in 1912/1913, has been one of the cornerstones of psychoanalytic therapies. While Freud emphasized the healing potential of positive transference, he stated that negative transference and countertransference could negatively affect the treatment process. Ferenczi (1949), on the other hand, considered countertransference as a part of the therapeutic relationship, arguing that the emotional responses of the therapist to the patient are a natural and understandable process (Ferenczi, 1949).

Since the 1950s, the therapeutic alliance has emerged as a focal point in various psychotherapy approaches. In 1952, Eysenck conducted a review of 24 psychotherapy studies, questioning the effectiveness of psychotherapy and concluding that it was largely ineffective (Eysenck, 1952). This controversial conclusion sparked extensive debates and critiques, including those by Auerbach et al. (1963), and significantly increased interest in methodological and conceptual questions within psychotherapy research. These discussions fueled efforts to

identify constructs that reliably "predict," "demonstrate," and "remain stable" across different psychotherapy modalities, contributing to the evolution of the therapeutic alliance as a pivotal concept in clinical practice and research.

CONCEPT OF THERAPEUTIC ALLIANCE

The concept of "therapeutic alliance" was first introduced by Zetzel (1956) and later expanded upon by Greenson (1965) with the notion of the "working alliance" and Luborsky (1976) with the "helping alliance." Additionally, Sandler et al. (1992) coined the term "treatment alliance." Bordin (1979) proposed a transtheoretical framework for the therapeutic alliance, identifying three core components: bond, task, and goal. This model demonstrated that the therapeutic alliance is not confined to psychodynamic therapies but is equally significant in other psychotherapy approaches. Bond refers to the social relationship between the therapist and patient, shaped by factors that either facilitate or hinder its development. Task represents the techniques employed by the therapist and the patient's roles and behaviors in therapy. Goal pertains to the desired outcomes of therapy and the collaborative efforts of both therapist and patient to achieve these objectives. According to Bordin (1979), these three components form an integrated whole that underpins the strength of the alliance, which is directly linked to the

therapist and patient's agreement on tasks and goals and the quality of their relationship.

Zetzel (1956) emphasized that the therapeutic alliance is the most critical factor for the success of psychiatric interventions. For the patient, the therapeutic alliance represents a secure and positive bond with the analyst, rooted in the individual's early developmental experiences. Establishing this secure relationship through the therapeutic alliance mirrors the process by which a caregiver instills a sense of trust and security in a child, making the relationship inherently healing. Through this bond, the therapist can effectively address the patient's needs. As the therapeutic alliance gained prominence, various psychotherapy disciplines sought to incorporate and adapt this concept. This recognition underscored the necessity of a transtheoretical approach to therapeutic alliance, establishing it as a pivotal parameter for effective psychotherapies.

In the 1970s, Luborsky and Bordin (1985) independently endeavored to conceptualize the therapeutic alliance within a transtheoretical framework (Luborsky et al., 1985). This approach proposed that the alliance develops in two stages: the first stage (type 1) emerges early in therapy, when the patient believes in the therapy's potential to help and perceives the therapist as supportive, warm, and nurturing. The second stage (type 2) arises in later phases, as the therapist and patient collaboratively work to address the patient's challenges and develop a shared sense of progress (Luborsky et al., 1985).

This transtheoretical conceptualization highlighted that the therapeutic alliance extends beyond psychodynamic therapies, encompassing various therapeutic modalities. Furthermore, it challenged the traditional dichotomy between technique and relationship factors, proposing instead that these elements are interdependent and integral to the therapeutic process. Safran and Muran (1996) expanded upon this model, suggesting that the therapeutic alliance is a negotiable and dynamic process, requiring continuous adjustment within the therapeutic relationship. Despite its transtheoretical nature, the therapeutic alliance is understood differently across approaches, with some emphasizing its centrality and even positioning it at the core of their work. Recent research confirms the strong relationship between therapeutic alliance and positive therapy outcomes. A meta-analysis by Flückiger et al. (2018) found a significant correlation between the therapeutic alliance and treatment outcomes, establishing it as one of the most consistent predictors of change in psychotherapy.

The therapeutic alliance is also influenced by attachment styles. Diener and Monroe (2011) found that individuals with secure attachment styles form therapeutic alliances more easily, whereas those with insecure attachment styles face challenges in collaborating with the therapist and agreeing on therapeutic goals. Similarly, the therapist's attachment style significantly impacts the quality of the alliance (Degnan et al., 2016). Moreover, research has shown that the therapeutic alliance affects not only psychotherapy outcomes but also responses to pharmacological treatments (Totura et al., 2018).

In the 1950s, the introduction of recording technologies in counseling sparked significant debates. Hans et al. (1977) argued for the importance of real therapy session materials in establishing a scientific foundation for psychotherapy practices. They advocated for the creation of audio and

data archives to enable researchers to access and utilize these materials for further study. Hans's contributions to psychotherapy research earned him recognition as a pioneer in studying the "therapeutic process and change." His research focused on two main areas: the impact of patient-therapist relationship qualities on the potential for therapeutic change and strategies for therapists to establish effective relationships with challenging patients. In this context, Hans developed the "tripartite model of therapeutic change" (Hans et al., 1977). This model integrated seemingly conflicting findings, emphasizing that psychotherapy is fundamentally a human relationship rather than a medical intervention. From a contemporary perspective, this model still holds relevance, emphasizing the collaborative nature of therapy in achieving improved mental health outcomes.

FUNCTIONALITY OF PSYCHOTHERAPY AND IMPORTANCE OF THERAPEUTIC ALLIANCE

Discussions on the therapeutic alliance have brought to light critical questions about how psychotherapy provides benefits and how its outcomes can be objectively measured and demonstrated. While debates on the efficacy and differences of psychotherapy techniques persist (Stiles et al., 1986), post-Eysenck meta-analyses have demonstrated that psychotherapy is generally effective. However, considering that the efficacy does not vary significantly across different types of psychotherapy, the concept of "common factors" driving therapeutic success has gained prominence. Among these factors, the healing potential of the relationship between the patient and therapist is recognized as a cornerstone of the therapeutic process. It can be suggested that ongoing debates reflect the complexity of defining the therapeutic alliance and determining whether its effects on outcomes are direct or indirect.

Historically, the significance of the therapeutic relationship was first thoroughly explored by Freud (1912/1913) through the concept of transference. Freud argued that analyzing the transference dynamics between patient and therapist could yield therapeutic benefits. While positive transference was identified as a potent tool for facilitating recovery, negative transference was seen as a factor that could impede the therapeutic process. Over time, the concept of the therapeutic alliance has been examined through different theoretical lenses. Ego psychology shifted the focus from the therapeutic relationship to the concept of "alliance," emphasizing the therapist's efforts to interact effectively with the patient (Safran & Muran, 2000). In contrast, the British object relations theory framed the therapeutic relationship as the patient's ability to establish a positive and trust-based bond with the therapist.

Empirical studies consistently highlight the significant role of a strong therapeutic alliance in improving therapy outcomes and underline the critical role of the therapist-patient relationship in the therapeutic process. For instance, Zuroff and Blatt (2006) emphasized the positive impact of a strong alliance on therapy outcomes, while Barrett et al. (2007) linked a weak alliance to undesirable outcomes, such as therapy dropout.

The therapeutic alliance has also been identified as one of the most robust predictors of psychotherapy success across

various studies (Horvath & Greenberg, 1989; Flückiger et al., 2018). These studies demonstrate that the therapeutic alliance has a direct effect on the progress of therapy, with a universal validity across different therapeutic approaches. Notably, recognizing and addressing challenges within the therapeutic relationship in a timely manner can foster a stronger alliance, which, in turn, significantly contributes to meaningful changes in the patient's psychotherapy experience. In this regard, the therapeutic alliance is regarded as a pivotal factor for both the sustainability of the therapeutic process and the achievement of positive outcomes for the patient.

RUPTURES IN THERAPEUTIC ALLIANCE AND THERAPY DROP-OUT

The concept of rupture in the therapeutic alliance, while a relatively new term, has long been recognized for its importance in the psychotherapy process. In ego psychology, although not explicitly referred to as "rupture," it has been conceptualized similarly to "resistance," which disrupts the sustainability of the alliance. A strong therapeutic alliance is typically associated with positive treatment outcomes, whereas a weak alliance can lead to undesirable situations, such as premature termination of therapy. Recognizing and addressing issues that arise during the therapeutic process is therefore critical for maintaining the continuity of therapy. Swift and Greenberg (2012) emphasized that identifying, repairing, and managing moments of rupture in the therapeutic alliance is essential for ensuring the success of treatment.

Moments of strain or rupture in the therapist-patient relationship are common in therapy. During such instances, both parties may experience emotions such as anger, frustration, a sense of failure, or defensiveness. Ruptures can manifest dramatically or subtly, making them difficult to detect. Kohut (1971) defined ruptures as empathic failures, highlighting their potential to provide significant emotional experiences for the patient. Addressing and resolving these ruptures not only serves the therapeutic goals but also offers valuable insights into the patient's deeper personal or interpersonal conflicts.

Equally important to therapeutic ruptures is the issue of therapy dropout. Vogel et al. (2007) reported that the dropout rate for long-term therapies is as high as 62%, while for short-term therapies, it is approximately 32%. Preventing dropout requires therapists to anticipate potential ruptures and respond effectively. Suggested strategies include selecting appropriate patients, educating them about the duration and patterns of change expected in therapy, clearly defining roles within the therapeutic process, utilizing appointment reminders, and considering patient preferences. Additionally, fostering hope early in therapy, facilitating emotional expression, and engaging patients in discussions about the course of their treatment are critical steps in maintaining therapy continuity. Regularly evaluating the treatment process and addressing concerns collaboratively with the patient can also be effective in reducing dropout rates (Hatchett & Park, 2003; Ogrodniczuk et al., 2005; Swift & Greenberg, 2012).

Both therapeutic ruptures and therapy dropout present significant challenges in psychotherapy. However, with the right approaches and strategies, these issues can be mitigated. Effectively addressing ruptures and taking proactive

measures to prevent dropout can contribute substantially to the successful continuation of the therapeutic process.

CAN THERAPEUTIC ALLIANCE BE MEASURED?

Various methods have been developed to evaluate therapeutic alliance, including qualitative, observation-based analyses and assessment tools that consider perspectives from patients, therapists, and independent observers. These tools enable a multidimensional examination of the therapeutic process, offering valuable insights into the dynamics of the alliance.

Several scales are widely used to assess therapeutic alliance. For instance, the Therapeutic Alliance Scale (Soygüt & Işıklı, 2008) and its shorter version, the Therapeutic Alliance Scale-Short Form (Gülüm, Uluç & Soygüt, 2018), are prominent instruments in this field. Additionally, the Penn Helping Alliance Questionnaire (Luborsky et al., 1985) provides a comprehensive framework for evaluating the therapeutic alliance between the patient and therapist. These tools contribute significantly to understanding the nature of the alliance and provide critical data for clinical practice.

Despite growing interest in the "therapeutic alliance" concept, several unresolved questions remain. These include: What defines therapeutic relationships and their ethical boundaries? What constitutes a therapeutic relationship versus what does not? How can unlimited relationships undermine professionalism? How should situations involving inadequate intervention, such as self-harm or involuntary hospitalization, be addressed? Furthermore, how should a therapist manage disclosing personal information or forming friendships with patients? Questions also arise regarding the therapeutic alliance in online therapy settings. Such issues often compel therapists to navigate multiple roles, adding complexity to their professional boundaries.

Additional inquiries focus on whether there are patients inherently more suited to collaboration in therapy or therapists better equipped to foster therapeutic alliances. Research indicates that therapists' attachment styles influence the patient's therapeutic alliance and directly impact the psychotherapy process. Consequently, therapists should be aware of their attachment styles, cultivate self-awareness, and reflect on how these factors manifest in therapy. Engaging in supervision can further enhance their growth in this area. Moreover, therapists must possess essential communication skills, such as active listening and empathy, to strengthen the alliance.

The therapeutic alliance is not confined to psychotherapy but is integral to all aspects of psychiatry and the broader physician-patient relationship. A strong alliance enhances treatment adherence, while a secure bond between the therapist and patient facilitates the achievement of therapeutic goals. However, maintaining ethical boundaries within the therapeutic relationship is critical. Violating these boundaries can lead to a loss of professionalism, ultimately compromising the therapeutic process and patient outcomes.

CONCLUSION

As a result, the therapeutic alliance has a historical importance in psychiatry, especially in the effectiveness of psychotherapies. The therapeutic alliance is a critical concept

that reflects the quality of the relationship between the patient and the therapist in the psychotherapy process and for many clinicians it is the main factor in the patient's recovery. While a strong alliance increases the success of the therapy, in cases of weak alliance, it is difficult to achieve therapeutic goals. Although different psychotherapy approaches position the concept of therapeutic alliance differently, in the future, in-depth exploration of the therapeutic alliance in different contexts and populations will contribute to the scientific knowledge in this field. The therapeutic alliance is a valuable concept not only in psychotherapy, but also in every field of psychiatry, and even wherever there is a physician-patient relationship.

ETHICAL DECLARATIONS

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

REFERENCES

- Auerbach, A. H. (1963). An application of Strupp's method of content analysis to psychotherapy. *Psychiatry J Study Interpers Process*, 26(2), 137-148.
- Barrett, L. F., Mesquita, B., Ochsner, K. N., & Gross, J. J. (2007). The experience of emotion. *Ann Rev Psychol*, 58, 373-403. doi:10.1146/annurev.psych.58.110405.085709
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychother Theory Res Pract*, 16(3), 252-260.
- Degnan, A., Seymour-Hyde, A., Harris, A., & Berry, K. (2016). The role of therapist attachment in alliance and outcome: a systematic literature review. *Clin Psychol Psychoth*, 23(1), 47-65. doi:10.1002/cpp.1937
- Diener, M. J., & Monroe, J. M. (2011). The relationship between adult attachment style and therapeutic alliance in individual psychotherapy: a meta-analytic review. *Psychotherapy*, 48(3), 237-248. doi:10.1037/a0022425
- Eysenck, H. J. (1952). The effects of psychotherapy: an evaluation. *J Consult Psychol*, 16(5), 319-324.
- Freud, S. (1912/1913). The dynamics of transference. In J. Strachey (Ed.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 12, pp. 97-108). Hogarth Press.
- Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: a meta-analytic synthesis. *Psychotherapy*, 55(4), 316-340. <https://doi.org/10.1037/pst0000172>
- Ferenczi, S. (1949). The confusion of tongues between the adults and the child: The language of tenderness and of passion. *Int J Psychoanalysis*, 30, 225-230.
- Gülüm, V. İ., Uluç, S., & Soygüt, G. (2018). Psychometric properties of the short form of the Therapeutic Alliance Scale. *Turk J Psychiatry*, 29, 47-53. doi:10.5080/u18260
- Greenson, R. R. (1965). The working alliance and the transference neurosis. *Psychoanalytic Quarterly*, 34(2), 155-179.
- Hans, H. S., Suzanne, W. H., & Gomes-Schwartz, B. (1977). When things get worse: the problem of negative effects in psychotherapy. *Arch Gen Psychiatry*.
- Hatchett, G. T., & Park, H. L. (2003). Comparison of four operational definitions of premature termination. *Psychother Theory Res Practice Train*, 40(3), 226-231. doi:10.1037/0033-3204.40.3.226
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the working alliance inventory. *J Counsel Psychol*, 36(2), 223-233.
- Joyce, A. S., Ogrodniczuk, J. S., Piper, W. E., & McCallum, M. (2003). The alliance as mediator of expectancy effects in short-term individual therapy. *J Consult Clin Psychol*, 71(4), 672-679. doi:10.1037/0022-006X.71.4.672
- Kohut, H. (1971). *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders*. University of Chicago Press.
- Luborsky, L., McLellan, A. T., Woody, G. E., O'Brien, C. P., & Auerbach, A. (1985). Therapist success and its determinants. *Arch General Psychiatry*, 42(6), 602-611.
- Luborsky, L. (1976). Helping alliance in psychotherapy. In J. L. Cleghorn (Ed.), *Successful psychotherapy* (pp. 92-116). Brunner/Mazel.
- Ogrodniczuk, J. S., Anthony, S. J., & William, E. P. (2005). Strategies for reducing patient-initiated premature termination of psychotherapy. *Harv Rev Psychiatry*, 13(2): 57-70. doi:10.1080/10673220590956429
- Safran, J. D., & Muran, J. C. (1996). The resolution of ruptures in the therapeutic alliance. *J Consult Clin Psychol*, 64(3), 447-458. doi:10.1037/0022-006X.64.3.447
- Safran, J. D., & Muran, J. C. (2000). *Negotiating the therapeutic alliance: a relational treatment guide*. Guilford Press.
- Sandler, J., Dare, C., Holder, A., & Dreher, A. U. (1992). *The patient and the analyst: the basis of the psychoanalytic process* (2nd ed.). International Universities Press, Inc.
- Stiles, W. B., Shapiro, D. A., & Elliott, R. (1986). Are all psychotherapies equivalent? *Am Psychol*, 41(2), 165-180. doi:10.1037/0003-066X.41.2.165
- Swift, J. K., & Greenberg, R. P. (2012). Premature discontinuation in adult psychotherapy: a meta-analysis. *J Consult Clin Psychol*, 80(4), 547-559. doi:10.1037/a0028226
- Soygüt, G., & Işıklı, S. (2008). Assessment of therapeutic alliance: reliability and validity study of the Therapeutic Alliance Scale. *Turk J Psychiatry*, 19(4), 398-408.
- Totura, C. M. W., Fields, S. A., & Karver, M. S. (2018). The role of the therapeutic relationship in psychopharmacological treatment outcomes: a meta-analytic review. *Psychiatric Services*, 69(1), 41-47. doi:10.1176/appi.ps.201700114
- Vogel, D. L., Wade, N. G., & Hackler, A. H. (2007). Perceived public stigma and the willingness to seek counseling: the mediating roles of self-stigma and attitudes toward counseling. *J Counsel Psychol*, 54(1), 40-50. doi:10.1037/0022-0167.54.1.40
- Zetzel, E. R. (1956). Current concepts of transference. *Int J Psychoanalysis*, 37, 369-376.
- Zuroff, D. C., & Blatt, S. J. (2006). The therapeutic relationship in the brief treatment of depression: contributions to clinical improvement and enhanced adaptive capacities. *J Consult Clin Psychol*, 74(1), 130-140. doi:10.1037/0022-006X.74.1.13