



ULUBORLU MESLEKİ BİLİMLER DERGİSİ (UMBD)

Uluborlu Journal of Vocational Sciences

<http://dergipark.gov.tr/umbd>

TALASEMİ MAJÖR TANILI ÇOCUĞA GORDON'UN FONKSİYONEL SAĞLIK ÖRÜNTÜSÜ MODELİ VE ÇOCUĞUN ANNESİNE WATSON'UN İNSAN BAKIM MODELİNİ UYGULAMAK: BÜTÜNCÜL BİR VAKA SUNUMU

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(Geliş/Received: 27.03.2023; Kabul/Accepted: 25.05.2023)

ÖZET:

Amaç: Talasemi majör tanısı ile izlenen ve graft-versus host hastalığı olan çocuk hastanın Gordon'un Fonksiyonel Sağlık Örüntüleri; annesine ise Watson'ın İnsan Bakım Modeli'ne göre verilen bakımın değerlendirilmesi amaçlanmıştır.

Yöntem: Çocuk hastanın verileri annesinden, bakım veren sağlık personellerinden ve hasta kayıtlarından elde edilmiştir. Annenin verileri kendisinden toplanmıştır. Elde edilen veriler dorultusunda belirlenen problemleri tanılamada The North American Nursing Diagnosis Association International kullanılmıştır. Hemşirelik bakımı Gordon'un Fonksiyonel Sağlık Örüntüleri ve Watson'ın İnsan Bakım Modeli'ne dayandırılarak verilmiştir.

Bulgular: Çocuğa Gordon'un Fonksiyonel Sağlık Örüntüleri'ne göre 12 tanı koyulmuştur ve annesine Watson'ın İnsan Bakım Modeli'ne göre hemşirelik bakımı verilmiştir.

Sonuç: Hemşirelik modellerine göre bakım vermek, ölümlerle sonuçlanabilecek komplikasyonları olan kronik hastalıklarda hem hastayı hem de bakım vereni rahatlatmaktadır. Çok özel bir hasta grubu olan çocukların birincil bakım verenleri genellikle anneler olduğu için çocuklarla birlikte annelerinin de sağlık bakım gereksinimleri karşılanmalıdır. Hemşireler hem çocukların hem de bakıcılarının sağlık bakım ihtiyaçlarını dikkate almalıdır. Hemşirelik modelleri, hemşirelik bakımının kalitesini artırmada kullanılabilir.

Anahtar Kelimeler: Anne, Çocuk, Gordon'un Fonksiyonel Sağlık Örüntüleri, Talasemi Major, Watson'ın İnsan Bakım Modeli.

APPLYING GORDON'S FUNCTIONAL HEALTH PATTERNS MODEL TO A CHILD WITH THALASSEMIA MAJOR AND WATSON'S HUMAN CARING THEORY TO THE CHILD'S MOTHER: A HOLISTIC CASE REPORT

ABSTRACT:

Purpose: It was aimed to evaluate and care for the pediatric patient who was followed up with the diagnosis of thalassemia major and had graft-versus host disease in accordance with Gordon's Functional Health Patterns Model and to give care to the mother in accordance with Watson's Human Caring Model.

Method: The data of the child patient were collected from her mother, caregiver health personnel and related records. The data of mother was collected from herself. The collected data were evaluated with The North American Nursing Diagnosis Association International nursing diagnoses. Besides, collected data synthesized in accordance with Gordon's Functional Health Patterns Model And Watson's Human Caring Theory.

Findings: The child was diagnosed with 12 according to Gordon's Functional Health Patterns Model and his mother was given nursing care according to Watson's Human Caring Model.

Conclusions: Providing care according to nursing theories relieves both the patient and the caregiver in chronic diseases with complications that may result in death. Since mothers are usually the primary caregivers of the

children who are a very special patient group, the health care needs of both children and their mothers must be met. Nurses should consider health care needs of both the children and their caregivers. Nursing theories could be used for giving care and increasing quality of nursing care.

Key words: Child, Gordon's Functional Health Patterns, Mother, Thalassemia Major, Watson's Human Caring Theory

1. INTRODUCTION

Chronic disease is defined as a condition that affects activities of daily living for more than three months in a year, causing more than one month of hospitalization in a year, or both [1,2]. Lately, the population of children and adults with chronic diseases is increasing, and chronic diseases have become the most important health problem in the world and all industrialized countries [3, 4]. The aim of treatment and care in chronic diseases in children, who are in a special age group, is to support, strengthen and improve the quality of life of the child and family by reducing the adverse effects of chronic diseases [5].

Thalassemia major, one of the chronic diseases frequently seen in childhood, is an inherited chronic blood disease characterized by an inability to produce specific globin chains in hemoglobins. In the disease, erythrocyte destruction occurs, and as the child grows, severe anemia symptoms are observed, which creates problems in the child's growth and development. If the disease is not treated, children die at 5-6 years of age. Complications such as graft-versus-host disease (GVHD), veno-occlusive disease, bone marrow suppression, infection, kidney failure, gastrointestinal effects, and pulmonary complications may be seen in transplant patients [5,6]. The most important cause of mortality and morbidity after transplantation is reported as GVHD. Nurses must have sufficient knowledge and skills to care for GVHD [7]. Nurses plan nursing interventions and provide supportive care to reduce the discomfort caused by GVHD in organs and systems. Implementing planned nursing interventions positively affects the prognosis of the patient and increases the quality of life. During the treatment period, it is necessary to provide psychological support to the children and their family. In this respect, in the presence of complications, it is important to treat sick children with symptoms and to provide emotional support to them and their families [8].

Models used in nursing care make the nursing care process more clear and specific and guide the practices by establishing a scientific basis. There have been many nursing models guiding care [9-11]. Gordon's Functional Health Patterns Model is a preferred model because it can be used to evaluate human/human reactions in all areas and at all health levels of young or old, female or male individuals, in acute/chronic situations, and all types of medical diagnoses. In the literature, there could not be found any document that stated a case report of a child with Thalassemia major and GVHD. Therefore, it was aimed to evaluate and care for the pediatric patient who was followed up with the diagnosis of thalassemia major and had GVHD, in accordance with Gordon's Functional Health Patterns Model [12-14].

Watson's Human Care Model predicts holistic care according to sub-dimensions of mind-body-spirit. Although having a chronically ill child is stressful for all family members, the most considerable caregiver burden is on primary caregivers [15,16]. The primary caregiver for children is mostly the mothers [17,18]. For this reason, the mother was given care in accordance with Watson's Human Caring Model.

While collecting the data, data were collected by face-to-face interview method with the mother, who was the companion of the child patient. The data of the child patient were collected from her mother, caregiver health personnel and related records. The collected data were evaluated with The North American Nursing Diagnosis Association International (NANDA-I) nursing diagnoses. The NANDA classification includes 13 domains, 6 classes, and 235 nursing

diagnoses [19,20]. The mother was informed about the case study, and her verbal informed consent was obtained, and verbal consent was obtained from the responsible persons for institutional and clinical permission.

2. CASE REPORT

For child:

Sociodemographic characteristics: An 8-year-old Syrian girl called RE, interrupted her school education due to the illness and hospitalization. She can understand Turkish. She was 125 cm tall and weighed 19kg. When the patient's development was evaluated according to the percentile curve, her body weight was found to be in the 10th percentile and her height was in the 25th percentile.

Past medical history: Her family took her to the hospital when she was 1 year old since she had a flu. As a result of the tests and tests performed there, it was said that the patient's blood values were very low. She was referred to the university hospital for further evaluation and treatment. The patient who had intermittent hospitalizations as of the age of 1 was hospitalized in the bone marrow transplantation (BMT) unit of the transplanted hospital for 1 month and in the Pediatric Oncology Service for 2 months after BMT.

Current medical history: The patient, who was discharged because her condition was good after BMT, was hospitalized again in a single room in the Pediatric Oncology Service of a university hospital due to the hemorrhage foci and weakness occurring in her body 2 days after her discharge. It was stated that the patient had a complication of GVHD.

Vital signs and drugs used: Fever: 37.1⁰C, Pulse: 114/min, Respiration:30/min, Blood Pressure:120/80 mmHg

Medicines: Prograf 2x1 mg, Enapril 1x5 mg, Antepsin syrup 3x1, Amlodis tablet 1x5mg, D vitamini 1x16 gutts, Revolade tablet 1x50 mg, Polivit syrup 1x100mg, Zinco syrup 1x50 mg, Folic acid capsul 1x1, Avicap capsul 1x30 mg.

3. METHOD

3.1. Nursing Care in Accordance with Gordon's Functional Health Patterns Model

3.1.1. Health perception -health management pattern

In the patient's hemogram findings: platelet: 40 thousand/mm³, hemoglobin: 7.2 g/dl, and hematocrit: 20.1%. The patient has melena and bleeding foci on her lips. It was thought that the patient had a GVHD complication due to BMT. The patient does not want to get out of bed, and her mother stated that she feels tired.

3.1.1.1. Nursing diagnosis: Risk for deficient fluid volume

Expected Outcomes: The patient had no signs and symptoms of deficient fluid volume.

Nursing Intervention: Vital signs were measured for signs of internal bleeding (hypotension, tachycardia). After venous interventions, pressure was applied to the area. Intravenous interventions were reduced. The patient's risk of falling was evaluated according to the Harizmi Fall Risk Scale available in the clinic, and measures were taken accordingly. The patient's body outputs (stool, urine, vomit, sputum, etc.) were monitored for signs of bleeding. The mother was instructed to notify the physician/nurse when she encounters any signs of bleeding. The measurement of platelet, hemoglobin, hematocrit, and INR/PTR values of the patient who was cared for according to the physician's order is followed. Occult blood is checked in the stool. According to the physician's order, vitamin K and fresh frozen plasma were applied when necessary. Sodium bicarbonate was used instead of a toothbrush in oral care. The patient was provided with psychological and emotional support.

Evaluation: Vital signs were measured and found stable. No signs of internal bleeding were observed. IV catheter replacement was done carefully and pressure was applied to the bleeding foci. The patient's risk of falling was evaluated according to the Harizmi Fall Risk Scale available in the clinic, and precautions were taken for this; A picture of a 4-leaf clover, indicating the risk of falling, was placed at the head end, the headboards were removed, and her mother was told to be careful about this. The bleeding in the patient's stool decreased. No blood transfusion or coagulation factor was ordered to the patient. Platelet, hemoglobin, and hematocrit values are still low. Oral care was done with sodium bicarbonate three times a day. Only blood in stool was seen from body printouts. Goal was partially achieved.

3.1.1.2. Nursing diagnosis: Fatigue

Expected outcomes: The patient's fatigue symptoms decrease and she finds enough strength to meet her care needs.

Nursing Interventions: The causes of fatigue were determined. The patient was encouraged and, if necessary, assisted in the provision and maintenance of care. Environmental factors that may cause insomnia were prevented. The light and temperature of the room were adjusted. It was important to adjust the treatment hours according to the child's sleep pattern. It was ensured that the child slept at least seven to eight hours a night, that daytime sleep periods were established and activity was restricted. The patient was evaluated for signs of anemia (Hgb, Hct, erythrocyte values; vital signs, nail beds for capillary filling, and jaundice in the sclera). It was ensured that the dietitian was consulted and fed according to the amount of calories that should be taken daily. It was ensured that she took the mineral and vitamin drugs given according to the doctor's order. Activities that could be done in or out of bed were arranged.

Evaluation: The child was willing to get a BMT done as soon as possible to get well. However, she did not want to get out of bed because she did not get the desired results. Her mother stated that her night's sleep was sufficient. The light and temperature of the room were appropriate. There was a delay in capillary filling. Hgb, Hct, and erythrocyte values were determined as lower than normal. The patient's diet was adjusted, and the amount of calories that should be taken was determined as 1400-1600 calories in consultation with the dietitian. The patient had some loss of appetite. Vitamin drugs (Polivit, Zinco, Folic acid, Avicap) ordered by the doctor were given on time. Active-passive ROM exercises were performed in bed. Goal was partially achieved.

3.1.2. Nutrition-metabolic pattern

She took additional vitamins (Polivit, Zinco, Folic acid, Avicap). She was fed with the help of her mother. Her appetite was moderate, she had lost 5-6 kg during the diagnosis and treatment process in the last 1.5 years. Her mother stated that during her hospitalization in intensive care unit, she had had no appetite because she was afraid of staying there. However, her daughter's appetite has recently started to improve. She ate 3 main meals and 2 snacks a day. She preferred to eat fruit, yoghurt or nuts for snacks. Her mother stated that she had no problem in getting the amount of food her daughter needs in 24 hours.

3.1.2.1. Nursing diagnosis: Change in feeding pattern: Undernutrition

Expected outcomes: The patient is fed in accordance with her needs.

Nursing Interventions: It was explained that nutrition was a very effective factor in recovery. Daily height and weight measurements were made and the percentile was determined. Oily, spicy and heavy foods were not allowed. It was ensured that the child's favorite foods were added to the list with the dietitian and the foods that she dislikes were removed from the list. Painful interventions should be postponed after the meal. While the meals were given, it was ensured that they were fed with a smiling face and supporting her. Care was taken to ensure

that the child receives high-calorie foods other than low-calorie foods. If she had fears during feeding, she was encouraged to share, and she was treated with care and understanding.

Evaluation: It was observed that the patient complied with his diet, but there was no significant increase in his appetite. Height and weight could not be measured because the patient refused to get out of bed. The mother was informed about the importance of nutrition. Goal wasn't achieved.

3.1.3. Elimination pattern

She had a normal toilet habit. Urine: 2-3 times a day, defecation: 1-2 times. Bowel sounds: 6/min (normactive).

3.1.4. Activity-exercise pattern

Before she was admitted to the hospital, RE would go to school alone, support his 1-year-old sibling when necessary and was able to do self-care on her own. While in the hospital, the patient was usually hypoactive, wandered in the corridor from time to time, could not take care of herself due to her illness, and was dependent on her mother. Her mother stated that her daughter was very weak and her energy level was very low, especially when she was in the intensive care unit 4 months ago. Her mother stated that her daughter was slowly painting in her coloring book. There was tachypnea and dyspnea. It took 4lt/min Nasal O₂. Hgb, erythrocyte and hematocrit values were low.

3.1.4.1. Nursing diagnosis: Disruption in respiratory pattern

Expected Outcomes: It should be ensured that the child's respiratory function disruption is reduced, and that she has normal respiratory patterns.

Nursing Interventions: The vital signs of the patient were followed. The quality of breathing was evaluated. Oxygen saturation was followed. Capillary filling was checked. Necessary oxygen support was provided according to the doctor's order. Oxygen was given by moistening. Oral care was performed by checking the oral mucosa in terms of dryness and wound care, since oxygen may cause dryness in the mouth. The comfortable position of the patient was determined (fowler, semi-fowler, knee-chest) and it was recommended her mother to change her position every 2 hours. The patient was evaluated for cyanosis. If there was no fluid restriction, fluid intake was increased.

Evaluation: 4 lt/min of humidified oxygen was given according to the doctor's order since the patient's respiration was 28/min, pulse: 118/min, PaO₂: 88mmHg. Oral care was performed, keeping the mouth moist. According to the information given by the doctors, fluid intake could not be increased since kidney failure complications may develop after BMT. Goal was partially achieved.

3.1.4.2. Nursing diagnosis: Impaired parenting

Expected outcomes: It is the timely meeting of the patient's self-care needs.

Nursing Interventions: Privacy was ensured while dressing the patient. The mother was supported to meet her daughter's self-care needs. It was ensured that the patient is fed according to the amount of calories. It is ensured that the child chooses the right clothes. The mother's lack of knowledge about perineum care was eliminated. The skin was moisturized. Oral care was provided. The child was supported to feed herself as soon as possible. The child was encouraged to participate in her care.

Evaluation: She was told that her mother could be supported to take care of her daughter's self and that her mother would do the self-care by herself. Missing information on perineal care was

completed. Moisturizing cream was given to the mother for the dryness of the patient's skin. Oral care was done by her mother. Goal was partially achieved.

3.1.4.3. Nursing diagnosis: Risk for falling

Expected Outcomes: The patient does not fall and is protected against trauma.

Nursing Interventions: The four-leaf clover sign was hanging over the patient's head due to the risk of falling due to weakness and fatigue. The bed borders were removed. The height of the beds from the ground was brought to the lowest possible level. If possible, the bed would be set adjacent to the floor. It was ensured that the room was sufficiently illuminated at night. It would be ensured that the floors were not slippery. The risk of falling would be evaluated.

Evaluation: Because the patient had thrombocytopenia and anemia, the Harizmi Fall Risk Scale was determined as 20 (high risk), and the four-leaf clover sign was hanging on the patient's head. (Patients with a total score of 15 and above according to the Harizmi Fall Risk Scale should be considered high risk and the 'Four Leaf Clover or Patient at High Risk for Fall' symbol should be used in these patients). The planned measures were explained to her mother. Her mother stated that she would consider the suggestions. Goal was partially achieved.

3.1.5. Sleep-rest pattern

At night, usually bedtime was 22:00, and sleep time was 9-10 hours. The child fell asleep by herself, and she used to sleep in a different bed in the same room with her siblings at home. It means that she has enough sleep. She also stated that she did not have any sleep problems in the hospital.

3.1.6. Cognitive-perceptual pattern

Vision, hearing, and smelling were normal. She had pink-white mucous, decreased moisture, mouth sores, cracked lips, and bleeding in the form of slight oozing. Her skin was well-hygienic, pale in colour; petechiae, and rashes were present. Nails were pale purplish in color. Alopecia was present. The patient told her mother that she was uncomfortable with this situation and wanted a wig because his hair was falling out when she was discharged after BMT.

Pain: The mother stated that her child had pain in her back due to weight loss, it started when she was lying on her back, and her mother said that the pain went away when she was rubbed.

Memory: Oriented to time and place, indifferent/reluctant.

Learning disabilities: Being in the hospital, being sluggish, being tired

Posture: Knee chest position or fowler's position in bed. Her mother states that she had tenderness in the musculoskeletal system and extremities since the age of 1 year. In addition, her mother described pain in the compression areas when the patient lies on her back because she lost weight after BMT. According to the patient's facial expression, the visual analog scale (VAS) pain intensity was found to be 3. The patient stated that she had pain when she moves, but had no pain when she lies down and rest. She usually had fatigue/weakness.

School: She cannot attend school due to her illness. She was successful in school and loved one by her friends.

3.1.6.1. Nursing diagnosis: Impaired Oral Mucous Membrane

Expected outcomes: No deterioration in oral mucous membranes and ensuring oral hygiene.

Nursing interventions: Oral mucosa was evaluated in terms of lesion, moisture, and color. Medications in the doctor's order were applied to the wounds around and inside the mouth. Oral

nutritional status and fluid intake were monitored. Oral hygiene was ensured after feeding and oxygen intake. Lips were moistened with appropriate moisturizers. Platelet values were monitored because there were bleeding foci.

Evaluation: Oral mucosa was examined, oral care was performed, and moisturizer was implemented to the lips. Goal was partially achieved.

3.1.6.1. Nursing diagnosis: Impaired Skin Integrity

Expected outcomes: Ensuring the skin tissue integrity is complete.

Nursing interventions: In order to accelerate tissue healing, it was ensured that the patient takes the vitamins ordered by the doctor. Pressure ulcer sites were evaluated. The non-risky areas in terms of pressure ulcer areas were massaged and the skin was moistened and supported. The position of the patient was changed every 2 hours. Her weight was monitored. Dry areas on the patient's body were moistened. The patient's mother was taught about areas that may be at risk for pressure ulcers and was told to support these areas.

Evaluation: The patient's compression areas were supported. Her weight could not be tracked because she did not want to get out of bed. Her mother was told that it was necessary and important to change positions every 2 hours. The skin was observed in terms of decubitus, and no symptoms were found. Goal was partially achieved.

3.1.6.2. Nursing diagnosis: Pain

Expected Outcomes: The patient has no pain.

Nursing Interventions: The causes of the pain were determined. Pain-increasing/reducing factors were determined. Complaints/fears related to pain were listened carefully. The duration, severity and quality of the pain were evaluated. Non-pharmacological methods (distraction, rubbing, relaxation techniques, listening to music, massage, drawing, etc.) were applied. Nonpharmacological methods were taught to the mother. If pharmacological methods that depress respiration were applied, respiratory depression and its side effects were observed. The patient was given a suitable position. She was fed according to her meal and the amount of calories she should take daily. In case of pain, her vital signs were followed.

Evaluation: Pain assessment was done. Information was given about supporting the pressure points (scapula, shoulder, knee, elbow, heel) with small pillows while in the lateral or semi-fowler position, since she was usually in bed. The patient said that she was comfortable in the knee-chest position. Painful places were massaged. She was given coloring books as a distraction. It was observed that the child was slightly more relaxed and his pain was determined as 2 according to VAS. Goal was partially achieved.

3.1.6.3. Nursing diagnosis: Ineffective role performance

Expected Outcomes: The patient exhibits an effective role performance.

Nursing interventions: The factors that cause ineffectiveness in the child's role performance were determined. It was talked about her achievements at school. She was encouraged to talk about how the situation in the hospital affected her, and her feelings and thoughts were determined. When she had energy, test, coloring, and reading books suitable for her were provided.

Evaluation: Since the patient was generally in communication with her mother, her mother was generally contacted for these matters. Her mother said that her daughter had been successful in school before, but she had problems because she was away from school because

of this situation. Test, coloring and reading books were provided to the patient. She said she would take care of herself when she feels good. Goal was partially achieved.

3.1.7. Self-concept–self-perception pattern

The state of the health problem restricting its functions: In general, she feels weak, and tired, her mother performs self-care.

Roles-relations: The family structure was nuclear, the mother was illiterate, the father had primary school graduation, and the mother was a housewife. The father was a construction worker, but after an injection, he could not work very well due to the sequelae occurring in his foot. The family accepted the children's disease and the most supportive family member was the mother. The father also supports the mother as much as he can. While she was an active child who had a circle of friends before her health problem, she started to be shy after the illness. She didn't have many friends as she usually slept and rested due to his illness.

3.1.7.1. Nursing diagnosis: Social isolation

Expected outcomes: The patient keeps in contact with people around.

Nursing Interventions: The patient was encouraged to express her feelings and thoughts on this subject. Since she usually spends time in the bed, activities that she can enjoy doing in the bed were planned (painting, reading a book etc.). The patient was supported to communicate verbally. Situations that cause social isolation were determined. In order to eliminate the patient's shyness, she was provided to communicate with the patients who had the same diagnosis in the hospital. Her mother was talked about the situation with.

Evaluation: After the applications, the patient became a little more willing to communicate. It was observed that she was walking around the service with a mask and communicating with the other patients. Goal was partially achieved.

3.1.8. Coping–stress tolerance pattern

Observed signs of stress: avoidance of communication, avoidance of eye contact,

Methods of coping with stress: painting

3.1.8.1. Nursing diagnosis: Stress Overload

Expected outcomes: The patient's stress was reduced.

Nursing interventions: The factors that cause stress were evaluated. It was recommended to think about the things that she likes. The activities she likes were planned. She was encouraged to talk about the situations that trigger her stress. She talked about what she cares about in her life. Relaxation techniques (massage, distraction) were taught and encouraged in practice.

Evaluation: R.E enjoys spending time with his sisters at home and painting. She said being in the hospital was stressing her out. The coloring book was provided, she used it and said he liked it. Talking to her diverted her attention. Goal was partially achieved.

3.1.9. Value–belief pattern

According to her culture, the special health practices practiced by the mother was praying.

Healing methods traditionally used in cases where the patient and his relatives get sick: being in a warm environment, and drinking milk

3.1.10. Sexuality-reproductive pattern

R.E was aware of her sexual identity and her hair loss bothered her. Her mother stated that she pays attention to perineal care and that there was no redness or no infection sign in the perineal area.

3.1.10.1. Nursing diagnosis: Disturbed Body Image

Expected outcomes: The patient has a healthy body image

Nursing interventions: The patient was encouraged to express her feelings and thoughts. Situations where she feels uncomfortable were determined and reliable information was given about them. It was ensured that she communicates with friends/family about his discomfort. It was said that her hair loss might be temporary.

Evaluation It was talked to RE and her mother. Her mother said she supported her daughter to feel good about her body image. R.E said she didn't want to wear a wig, she would wait for her hair to grow back. Goal was partially achieved.

For R.E's Mother Mrs. A.

The mother was 32 years old and illiterate. She did not have any chronic or acute disease. She said that she had lost a lot of weight since her daughter was hospitalized in the hospital, she did not know how much she had lost because she was never weighed, and she did not know how much she weighed before, she didn't sleep recently, her kidneys hurt, she worked hard for her daughter, and she said that she was a donor to her daughter. The mother stated that she had an anemia problem due to being a donor for her daughter and that she used iron-containing medication. She stated that the blood donors for her daughter supported her financially and morally, but she still felt weak and that she missed the other 2 children whom older daughter takes care of at home. She said that she was experiencing overload of stress at the moment. She calls her mother when she is stressed. She said she always cries and she was very afraid of losing her daughter if something happens to her. Moreover, she said that her children would disappear and she was very worried about what would happen to them. She said that she neglected herself very much due to her daughter's illness, especially after the BMT period, that her daughter's admission to the intensive care unit had worn out her and her daughter a lot, and she was afraid that her daughter would be intubated again. She stated that she put her own wife role in the background and never thought about her sexuality. Her second marriage was currently ongoing. She said that even though R.E's father was her first husband, her second husband also took care of her sick daughter very well. She stated that her husband was a construction worker, but at the moment, no one wants to make him work because of the walking problem that occurs later in his foot. She mentioned her religious belief as strong, and she listens to religious songs to relax.

She said that RE had a cardiac arrest while RE was in the hospital during the treatment process, and was intervened and intubated. The mother stated that this was the situation that she and her daughter fear the most. While RE was in this process, she received multiple treatments and 4 IV catheters and a urinary catheter were inserted. It was observed that the mother said to her daughter, "I am losing you, doctors told that be prepared for everything, for every result" while her daughter was intubated.

3.2. Nursing Care for Mrs. A. in accordance with Watson's Human Caring Model (WHCM)

The following steps were applied according to the stages of the model:

1. Use of Improvement Processes (IP)
2. Establishment of Interpersonal Care Relationship
3. Care Status / Care Moment [21].

3.2.1. Improvement processes (IP)

IP – 1. Humane values system

Mrs. A was treated with a caring, sincere, understanding and patient approach. During the conversation, privacy was given importance, it was spoken in a quiet and unattended room. She was called by name.

IP – 2. Faith–hope

If there was a lack of information about how to use iron drugs due to anemia due to being a donor, to take care to use the drugs regularly and how to feed due to anemia, they were eliminated. She was encouraged to seek psychiatrist support because she felt powerless, and to have an internal medicine examination because she had kidney pain. She was encouraged to use support systems in situations where she felt hopeless.

IP – 3. Sensitivity to self and others

The information, feelings and thoughts of Mrs. A about her and her daughter's condition were determined and listened to without being judged. It was been kind and sensitive to her feelings. Touching, eye-to-eye communication, and affirmation with eyes and heads were used during communication.

IP – 4. Helping relationship

A positive and reassuring communication was established with Mrs. A, allowing her to express her fears and concerns. Necessary guidance was given about her health situation and issues that she was uncomfortable with. She was asked if there was anything about her daughter's health condition that she would like to be conveyed to the medical staff. It was said that she could participate in the care of her daughter along with the nurse.

IP – 5. Expressing positive and negative emotions

Mrs. A was encouraged to express herself. She was supported to express positive and negative situations about her family related to her life. It was said that her husband took care of R.E despite her illness and that his daughter was not his own daughter, it was stated that she was lucky in this regard. She was encouraged to express her fears and concerns.

IP – 6. Creative problem solving in the care process

It was talked about how her daughter's condition that affected her life and what she did in previous times when she was stressed. It was discussed which improvement methods may be appropriate in which situations and how to help her. Mrs. A was given information about resting and non-pharmacological methods when she has pain she can use.

IP – 7. Interpersonal learning – teaching

She was asked what she wanted to know about her daughter or her own ailments and her questions were answered. When she said at the beginning of her intubated daughter, “My daughter was very bad, doctors told to be prepared for everything”; it was said that her daughter could hear her and that she should communicate more positively with her daughter because she was afraid of being intubated as in the previous periods. It was said that this process in the

hospital wore her out, and that she would be relieved to walk out of the hospital once in a while and get fresh air.

IP – 8. Supportive, protective and/or curative mental, physical, social and spiritual environment

A comfortable and healthy environment in terms of physical, emotional and spiritual was created. At the time of the interview, they were taken to a different room. The history was taken by providing an adequately lit, safe, cool and calming environment for privacy.

IP – 9. Need for human assistance

Situations in which Mrs. A needs help were identified, and it was behaved understandingly and patiently for providing assistance. Emotional support was provided.

IP – 10. Existential – phenomenological – spiritual forces

While applying all the improvement processes, the self-confidence of Mrs. A was tried to be increased and her morale was tried to be raised. She was encouraged to feel comfortable in this way because her religious beliefs were strong.

3.2.2. Establishment of interpersonal care relationship

She was listened to understandingly and kindly. The message that we want to help and support her was given. She was told that she had better talk with her friends or her mother about her daughter's situation has arisen that triggered her stress and fear.

3.2.3. Care status / care moment

Planned initiatives were put into practice. Mrs. A participated in the care of her daughter, did not neglect herself, received more support from her husband. It was stated that still she was a really good mother because she makes a lot of sacrifices for her sick daughter, and she stands strong in the face of all difficulties despite feeling exhausted. It was supported to repeat and put into practice the information conveyed about the condition and disease. Asking questions was allowed.

3.2.4. Assessment of initiatives

She said she was very happy that she was spoken to and understood. She stated that she would not disrupt her own health, and that she would go to the psychiatrist and internal medicine for examination.

Stating that the iron-containing medicine finished, Mrs. A was provided with iron-containing medicine. She was informed that he should take it on an empty stomach for better absorption, and she was allowed to take the drug. The conversation was interrupted for a while with Mrs. A, who was seen to be very exhausted during the conversation and she was given salted buttermilk to make her feel a little better due to having 70/50mmHg blood pressure. She hugged the researcher and cried at the beginning of the conversation, and stated that she felt in safe during the conversation. Mrs. A relaxed and calmed down a little in the middle of the conversation. Although she stated that she had no appetite due to R.E's health condition, she was encouraged to eat her food. She said near her daughter "My girl, get well soon, we will go home soon, your siblings missed you." The suggested relaxation music was sent to her phone, and she said she would listen to as soon as possible.

3.2.5. Footnote

R.E died 2 days after she was applied nursing care plan. Mrs. A said that although the doctors said that her daughter would be fine for 5 months, that a new medicine was brought from another city lately to stop the bleeding, they used her daughter as a test board, staying in the intensive care unit was wearing her down, expressed crying that she brought her daughter to the hospital in a private car and took her with a hearse, she did not know what to say to her siblings at home, she did everything she could for her daughter, and she was very worn out and exhausted in the process. Mrs. A was encouraged to share her feelings about the loss. She was encouraged to join supporting groups. Mrs. A was treated empathetically and was supported to share her feelings and thoughts with her husband. It was stated that she could be supported when she needed help.

4. DISCUSSION

In this study, a care plan was prepared and implemented by using Gordon's Functional Health Patterns Model and NANDA nursing diagnoses in order to solve the problems of a child with Thalassemia major who developed GVHD complication after BMT. In addition, Jean Watson's Human Caring Model was applied to her mother, who was a caregiver. During the BMT process, nurses should evaluate the child patient and their family holistically, and try to alleviate their concerns by supporting the family and the child. Nurses should consider that the child is in a rapid development process in terms of physical, emotional, mental, and social aspects, and the child's expectations, perception of events, past experiences, emotions, and cognitive level should be taken into account during hospitalization [22-24]. In this direction, the data of the child patient was collected and evaluated holistically. The diagnosis of the patient who developed a GVHD complication was determined accordingly, and a care plan was created for the child. The pediatric nurse should encourage the child to talk about his/her fears and concerns about his/her illness and enable them to express themselves verbally and non-verbally. In the concrete operational period (7-11 years), the child patient may be asked to express her feelings and thoughts about the disease and treatment through pictures [23]. It is aimed to provide psychosocial and physiological well-being by expressing the feelings and thoughts of the child patient who is in the concrete operational period regarding the pain/comfort deterioration, ineffectiveness in role performance, social isolation, and stress overload nursing diagnoses.

The hospitalization process before and after BMT may affect the response of children and their parents to the disease. Long-term treatment processes cause patients to limit their activities, stay away from family, experience sleep problems, show signs of stress, stay away from school and friends, and experience social isolation [4, 25, 26]. In the presented case, signs and symptoms of ineffectiveness in role performance, dependency on self-care, stress overload, social isolation, and deterioration in body image were observed in parallel with the literature. It was determined that the patient's physical health deteriorated due to GVHD. Contrary to the literature, the patient stated that his sleep was sufficient. It is necessary for families to actively participate in the care process of the child, to support them in this process, to strengthen their coping strategies, to meet their educational needs, and to help their psychosocial recovery [26-27]. Watson's Human Caring Model covers the interpersonal care relationship, care status and moment of care, and remediation processes. In this model; the nurse can understand the individual, provide care to the individual, have the opportunity to establish a deeper bond with the individual, ensure that the individual is satisfied with the care, and reveal the healing and caring side of the individual [28]. In the presented case, the mother was given care according to Watson's Human Caring Model, a strong bond was established with her and she was provided to contribute to the care of her daughter.

5. CONCLUSION AND RECOMMENDATIONS

Since the care and treatment of chronic diseases take a long time, pediatric patients and caregivers need to be supported. Since the treatment of thalassemia major, which is one of the chronic diseases, is complex and has complications that can cause mortality, it is important to use the theories that provide a systematic view of nursing care in these areas. It is necessary to provide holistic care to pediatric patients and their caregivers and to support them biopsychosocially at every stage of the treatment process.

6. REFERENCES

- [1] Engin, E., Yıldırım, F., & Purutçuoğlu, E. (2021). Psychosocial Problems of Children with Chronic Diseases: A Review Focusing On Pediatric Social Work Interventions. *The Journal of Current Pediatrics*, 19, 271-279.
- [2] Ak, B. Child with Chronic Life-threatening/Fatal Disease and Nursing Approach. In: Pediatric Nursing, Conk Z, Başbakkal Z, Bal Yılmaz H, Et Al. (Edt), Akademisyen Tıp Kitabevi, Ankara, 2013, pp.905-922.
- [3] Aydemir, T., & Çetin, Ş. (2019). Kronik Hastalıklar ve Psikososyal Bakım. *Journal Of Anatolian Medical Research*, 4(3), 109-115.
- [4] Çavuşoğlu, H. Child Health and Diseases Nursing. S.58-62, Sistem Ofset Yayınevi. Ankara, 2008.
- [5] Arslan, F., Çalışır, H. Hematological System Diseases and Nursing Care in Children, In: Pediatric Nursing, Conk Z, Başbakkal Z, Bal Yılmaz H, Et Al. (Edt), Akademisyen Tıp Kitabevi, Ankara, 2013, pp. 419-459.
- [6] Kacı, A. Assessment of "quality of life" after hematopoietic stem cell transplantation in pediatric patients. Istanbul Medipol University Faculty of Medicine Child Health And Diseases USA Specialization In Medicine, 2019.
- [7] Çölgeçen, E., & Ferahbas, A. (2011). Kutanöz Graft-Versus-Host Hastalığı/Cutaneous Graft-Versus-Host Disease. *Turk Dermatoloji Dergisi*, 5(4), 92.
- [8] Çalışır, H., & Güneş, Z. (2005). Akut Graft Versus Host Hastalığı Olan Çocuklarda Hemşirelik Yaklaşımı. *Ege Üniversitesi Hemşirelik Fakültesi Dergisi*, 21(1), 135-144.
- [9] Velioglu, P. Hemşirelikte Kavram ve Kuramlar. İstanbul. 1999;pp.24-26.
- [10] Kaya H., Atar NY, Eskimez Z. Nursing Models and Theories. İçinde: Atabek AT, Karadağ A, Editör. Nursing Fundamentals: The Science and Art of Nursing. *Akademi Basın ve Yayıncılık*, İstanbul. 2012; p.80-92.
- [11] Keleş, MN., Eroğlu, K. (2023). The use of theory or model in studies on postpartum care: A narrative review. *International Journal of Nursing Knowledge*, 1-1, <https://doi.org/10.1111/2047-3095.12411>.
- [12] Gordon, M. Patterns of Functional Health and Clinical Decision Making. In: Erdemir F, Yılmaz E, Editör. Use of Nursing Classification Systems in Clinical Practice, Education, Research and Management. Baskent University Symposium Book, Ankara. 2003;87-93.
- [13] Erdemir, F., Taş Arslan, F. Child with Oncological Problems and Nursing Care, İçinde: Pediatric Nursing, Conk Z, Başbakkal Z, Bal Yılmaz H, et al. (Edt), Akademisyen Tıp Kitabevi, Ankara, 2013, ss769-822.
- [14] Gengo e Silva Butcher, R. D. C., & Jones, D. A. (2021). An integrative review of comprehensive nursing assessment tools developed based on Gordon's Eleven Functional Health Patterns. *International Journal of Nursing Knowledge*, 32(4), 294-307.
- [15] Ratliffe, C. E., Harrigan, R. C., Haley, J., Tse, A., & Olson, T. (2002). Stress in Families with Medically Fragile Children. *Issues in Comprehensive Pediatric Nursing*, 25(3), 167-188.
- [16] Umadevi, P., Varambally, S., Philip, M., & Gangadhar, B. N. (2013). Effect of Yoga Therapy on Anxiety and Depressive Symptoms and Quality-Of-Life Among Caregivers of In-Patients with Neurological Disorders At A Tertiary Care Center in India: A Randomized Controlled Trial. *Indian Journal of Psychiatry*, 55(Suppl 3), 385-389.
- [17] Malerbi, F. E. K., Negrato, C. A., & Gomes, M. B. (2012). Assessment of psychosocial variables by parents of youth with type 1 diabetes mellitus. *Diabetology & metabolic syndrome*, 4(1), 1-10.
- [18] Watson, J. Human Caring Science: A Theory Of Nursing. Second Edition. Sudbury, MA: Jones& Bartlett Learning. 2012.

- [19] Erdemir, F. (2012) Nursing Diagnoses Hand book (Translation). Nobel Tıp Kitabevleri, İstanbul.
- [20] Kapucu, S., Akyar, İ., Korkmaz, F.(2018). Pearson Nursing Diagnostics Handbook. 11. Baskıdan Çeviri. Ankara. Pelikan Kitapevi
- [21] Karadağ, A., Çalışkan, N., Baykara, ZG. Hemşirelik Teorileri ve Modelleri. Akademi Basın Yayıncılık, İstanbul, 2017.
- [22] Uğur, Ö. (2014). Symptom management of cancer patients. *Türk Onkoloji Dergisi*, 29(3): 125-135.
- [23] Yazgı, Z., Yılmaz, M. (2019). Onkoloji Hastalarının Yaşadığı Psikososyal Sorunlarla Başetmesinde Hemşirenin Rolü. *Adnan Menderes Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, 4(1), 60-70.
- [24] Uzşen, H.,& Başbakkal, Z. (2021). Psychosocial Nursing Approach in Pediatric Patients Treated in the Bone Marrow Transplantation Unit. *Journal of Samsun Health Sciences*, 6(1), 1-10.
- [25] Kapucu, S. S., & KARACA, Y. (2008). Patient Assessment In Blood Stem Cell Transplantation and Care. *CÜ Hemşirelik Dergisi*, 12, 52-59.
- [26] Chow, K., & Coyle, N. (2011). Providing palliative care to family caregivers throughout the bone marrow transplantation trajectory: Research and practice: Partners in care. *Journal of Hospice & Palliative Nursing*, 13(1), 7-13.
- [27] Çamur, Z. The effect of parental participation in the care of hospitalized child on parental satisfaction and anxiety of both parent and child. Adnan Menderes Üniversitesi Sağlık Bilimleri Enstitüsü, Master thesis, Aydın, 2017.
- [28] Özkan Arslan, İ., & Okumuş, H. (2012). A model where caring and healing meets: Watson's theory of human caring. *Hemşirelikte Araştırma Geliştirme Dergisi*, 14(2), 61-72.