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Nursing Care of a Child with Perforated Acute Appendicitis According to the Nursing Model Based on Life Activities: A Case Report

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Abstract

Acute appendicitis is the most common reason for emergency abdominal surgery in children. Good outcomes are achieved in children who are diagnosed early and undergo appendectomy before perforation. Perforation rates are higher in children than in adults. Acute appendicitis, with or without perforation, is more common in children aged 1-14 years. Although common in childhood, the clinical findings of appendicitis can be atypical. For this reason, diagnosis can be difficult. The correct management of appendicitis requires a multidisciplinary approach. Nurses play an important role in this process, from admission to discharge. The purpose of this review is to present the nursing care of a 13-year-old pediatric patient who underwent surgery for perforated acute appendicitis, using the Life Activities-Based Nursing Model. Additionally, this case study aims to provide a nursing care plan incorporating the Nursing Diagnosis Definitions and Classifications (NANDA), Nursing Interventions Classification (NIC), and Nursing Outcomes Classification (NOC). This study presents the care plan of a 13-year-old boy who underwent two operations for perforated appendicitis. The care was developed using the Roper-Logan-Tierney Life Activities-Based Nursing Model alongside NANDA, NIC, and NOC. The nursing model based on life activities helped define the scope of nursing care for the child who underwent surgery for perforated acute appendicitis. The level of dependency of the 13-year-old child was assessed, and activities of daily living and self-care skills were supported. By utilizing the model, the patient recognized its potential and experienced a reduction in stressors.

Keywords: Appendicitis, child, nursing

Introduction

Acute inflammation of the appendix, medically termed appendicitis, is the most common cause of abdominal pain requiring emergency surgical intervention in pediatric patients.[1-3] Appendicitis in children often has a rapid onset.[3,4] If not treated promptly and effectively, there is a high risk of rupture or perforation due to the rapid progression of the condition. Additionally, delays in diagnosis may result in complications such as abscess formation, necrosis of the appendix, peritonitis, sepsis, intestinal obstruction, and widespread peritonitis.[4-6]

The diagnosis of acute appendicitis is primarily based on clinical findings and laboratory tests.[2] During physical evaluation, children may present with various signs and symptoms, including rebound, tenderness, and muscular defence.[7,8] Additionally, they may experience pain or tension in the right lower quadrant, nausea, and vomiting.[2] The presence of abdominal pain is a key indicator in making a diagnosis. However, the symptoms of acute appendicitis can sometimes mimic those of upper respiratory tract infections, urinary tract infections, gastroenteritis, and constipation, making accurate diagnosis critical.[9] Furthermore, imaging techniques such as ultrasound or computed tomography (CT) can assist in identifying appendiceal edema and swelling. However, CT imaging is contraindicated in children due to the potential risks of radiation exposure, including an increased risk of cancer. Visualizing the appendix using ultrasonography may also be challenging, which complicates the diagnostic process in pediatric emergency departments.[10] Postoperative recovery in children is generally favorable, but the perforation rate in pediatric patients is significantly higher compared to adults.[11] Implementing appropriate nursing measures can reduce the incidence of postoperative complications and improve the quality of life for these patients.[3]

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The management of pediatric appendicitis is a multidisciplinary process involving the expertise of various healthcare professionals, including surgeons, nurses, emergency physicians, pediatricians, and radiologists.[3,11] During the period from patient admission to discharge, the nurse is responsible for evaluating the patient for signs and symptoms of appendicitis, formulating nursing diagnoses, and planning and implementing quality care. The symptomatic care provided by nurses to patients undergoing acute appendicitis surgery during the preoperative, operative, and postoperative stages has the potential to improve patient outcomes, potentially resulting in a shorter hospital stay.[3] The nursing care plan is expected to include nursing diagnoses (Nursing Diagnosis Definitions and Classifications [NANDA]), goals to be achieved, interventions (Nursing Interventions Classification [NIC]), expected outcomes (Nursing Outcomes Classification [NOC]), and evaluation stages to assess the effectiveness of the interventions. The incorporation of models and theories into nursing practice has become a widely adopted approach. These frameworks enable nurses to evaluate the health of individuals, analyze and synthesize the data collected, and provide systematic care based on this information.[12,13]

Nursing Model Based on Life Activities

This model, developed by Roper, Logan, and Tierney in 1970, is widely used for nursing care planning.[14,15] The model consists of 12 components: maintaining a safe environment, communication, breathing, eating and drinking, eliminating body wastes, personal cleaning and dressing, maintaining body temperature, mobilizing, working and playing, expressing sexuality, sleeping, and dying.[14,16,17] The following case study is presented using the NANDA, NIC, NOC, and the Roper-Logan-Tierney Nursing Model.

Case Presentation

This case study was conducted through case presentation, examination, and evaluation processes, and no ethical approval was obtained. The study was carried out in accordance with the principles outlined in the Declaration of Helsinki. Prior to participation, verbal consent was obtained from the child subject. Additionally, written consent was obtained from the child's family using the "Informed Voluntary Consent Form."

The data presented in this case study were obtained from the child's mother, father, and the child himself during his hospitalization. The case concerns a 13-year-old male patient, currently enrolled in secondary school. In 2022, he sought emergency care at a hospital with complaints of severe abdominal pain and vomiting. After completing the necessary tests and physical examination, he was treated with intravenous paracetamol and metronidazole for his symptoms and subsequently discharged. The following day, he was readmitted to an external facility due to worsening abdominal pain. An ultrasound scan revealed acute appendicitis. The child, who was being treated with intravenous (IV) metronidazole and ceftriaxone and monitored with a nasogastric (NG) tube inserted, was transferred from the external facility to a specialized institution for surgical intervention. A diagnosis of perforated acute appendicitis and peritoneal abscess was made following further examinations. He was admitted to the pediatric surgery service. On July 8, 2022, he underwent emergency surgical intervention. Following the appendectomy, he was fitted with two drains, a urinary catheter, and a nasogastric catheter. During his inpatient care, the quantity and appearance of the fluid from his drains and catheters were carefully monitored. Post-surgery, his low urine output was reported to the attending physician, who administered a loading dose of 3000 cc of Ringer's Lactate (RL) solution. On July 26, 2022, he returned to the emergency room with complaints of abdominal discomfort localized in the upper right and middle quadrants, which had worsened that evening. He rated his pain as 9/10 and reported vomiting on four occasions, expelling stomach contents without any signs of blood or bile. No history of consuming suspicious food was reported. His stool was solid in consistency, with no evidence of blood or mucus. Additionally, there were no complaints of burning during urination, changes in urine color, unpleasant odor, or the presence of cloudy or bloody urine. No complaints were reported regarding cough, phlegm, or fever. The patient was readmitted to the pediatric ward. Following the detection of air and fluid levels on an outpatient abdominal radiograph, the patient was transferred to the pediatric surgery clinic. Intravenous hydration was initiated, and his mouth was kept closed. It was observed that the intestinal loops of Y.E.G, who underwent a second operation on July 30, 2023, were markedly distended. Additionally, the intestinal loops were found to be adherent to each other and to the abdominal wall in the area of the previous appendectomy incision in the ileocecal region. Furthermore, the omentum was observed to be adherent to the intestines and the abdominal wall, resulting in a mechanical obstruction clinically identified as ileus. The surgical procedure conducted was a bridectomy. The initial medical diagnosis for the patient was acute appendicitis. During his second hospitalization, the diagnosis was revised to peritonitis and ileus of widespread distribution. The initial treatment regimen included intravenous hydration (3000 cc/24 h), intravenous ceftriaxone (2 g twice daily), and intravenous metronidazole. The treatment regimen during the second hospitalization comprised ceftazidime at a dose of 150 mg/kg/day for three days, a proton pump inhibitor, two units of fresh frozen plasma, and total parenteral nutrition (TPN) administered via a 24-hour infusion.

A review of the medical history revealed no prior health issues. The patient has no known allergies to medications or food. There is no history of smoking or alcohol consumption. A review of the family history revealed no evidence of chronic diseases. He resides with his mother, father, and a brother (1). Both parents have completed a university education. During the child's initial physical examination, his body temperature was recorded as 38.5°C (temporal), blood pressure as 130/80, pulse as 104 beats per minute, respiratory rate as 22 beats per minute, and oxygen saturation (SpO_2) as 96%. His C-reactive protein (CRP) level was 11 mg/L (normal range: 0-5 mg/L), the white blood cell (WBC) count was 10,600 (normal range: 4,000-10,000), and his biochemistry values were within the normal range.

An Evaluation of the Nursing Model Based on Life Activities

This article examines nursing diagnoses, nursing care, and interventions for these diagnoses in a child diagnosed with acute appendicitis who underwent two surgeries, using the Roper, Logan, and Tierney Life Activities Model.

In this case, an evaluation of the individual's basic needs was conducted, and a nursing care plan was developed to address the identified issues. The model incorporates a dependency/independence cycle (Figure 1), aiming to enable individuals to perform 12 daily living activities independently at the highest possible level. Based on the data obtained from the case study, it can be concluded that the

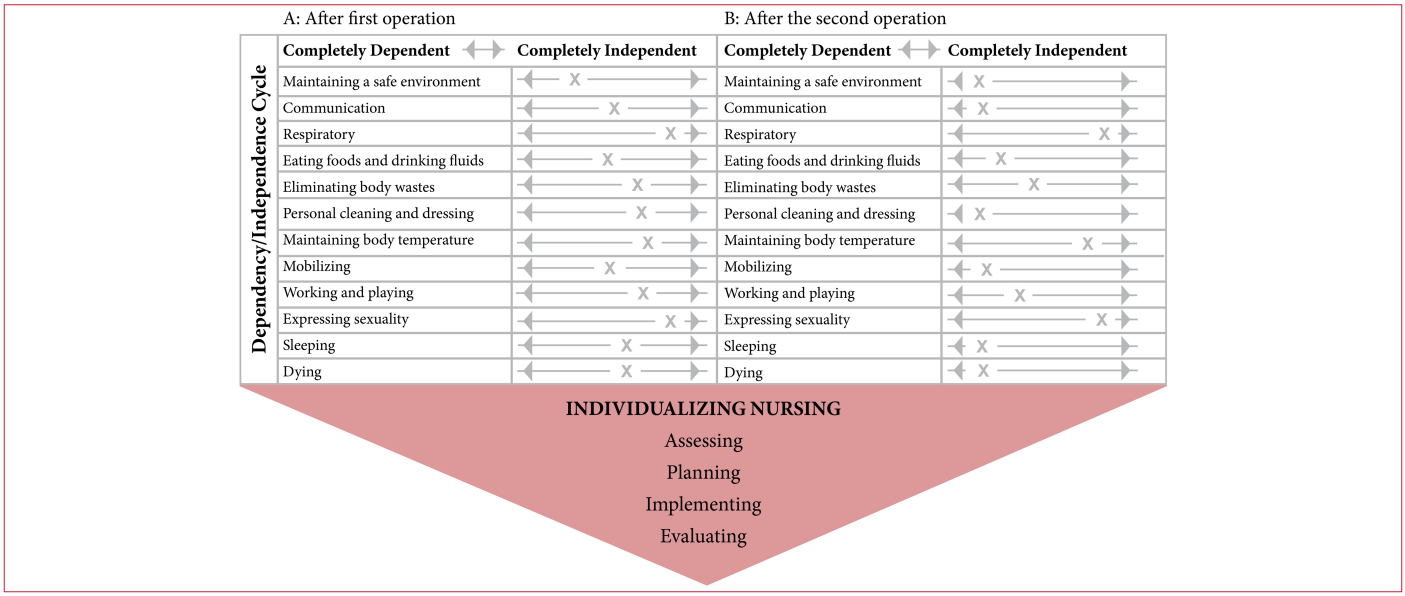

Figure 1. The child's dependency-independence cycle (Holand&Jenkins, 2019).

nursing care provided was individualized, encompassing the four stages of diagnosis, planning, implementation, and evaluation, as outlined in the model (Table 1).

Factors Influencing Life Activities

According to Roper et al.,[18] numerous factors influence the activities of daily living. These include biological, psychological, sociocultural, environmental, political, and economic factors. In this case, no biological factors were identified as influencing his daily living activities. However, the psychological factor of fear of the unknown, associated with surgery and pain, was a pertinent concern. The sociocultural factor of parental caregiving after the illness also played a significant role. Hospitalization itself was identified as an environmental factor. No political or economic factors were found to have an impact in this case.

Nursing and the Activities of Living

Maintaining a Safe Environment

To ensure survival and the ability to perform other vital activities, it is essential to implement measures that provide a secure and safe environment.[14] While under the influence of anesthesia, Y.E.G displayed mood swings and restlessness, expressing a desire to return home. The child was dependent on his mother or father for most of his daily activities and was equipped with various medical devices, including a central catheter, a post-urination drain, and another component. As the patient was unable to stand without assistance for the first three days following surgery, all his hygiene needs were attended to by his mother.

Communication

Communication, particularly non-verbal communication, varies among individuals and across cultural contexts. The ability to communicate relies on the use of sensory faculties, including sight, hearing, and touch.[18] In his case, no physical impediments to communication were observed. However, when experiencing pain, he exhibited a reluctance to engage in verbal communication, showing little interest in interacting with visiting friends and relatives. To avoid communication, he often pretended to be asleep, even when he was not sleepy.

Breathing

Breathing is an essential biological function vital for sustaining life. The capacity to breathe is a prerequisite for performing a wide range of activities and plays a crucial role in maintaining the body's homeostasis.[14] His respiratory rate was observed to be 22 breaths per minute, and his oxygen saturation value was recorded at 96%. No issues with oxygenation were noted during the postoperative period.

Eating and Drinking

The ingestion of food and drink is a fundamental biological process essential for maintaining the body's internal equilibrium. Consuming the appropriate nutrients and liquids is crucial for sustaining homeostasis.[13,14] Upon initial presentation to the hospital, he had a weight-for-age percentile ranking between the 90th and 97th percentiles, indicating a degree of overweight. Following the initial surgical procedure, there was a notable decline in weight, and by the second hospital admission, his weight-for-age percentile had decreased to between the 5th and 25th percentiles. A significant decline in appetite was documented on the second postoperative day. When asked about this, he stated that it was because he was overweight. Despite this, he was able to feed himself independently. Following the appendectomy, the child's oral intake resumed on the fifth postoperative day. he was initially placed on Regime 1 and Regime 2 dietary plans and was transitioned to Regime 4 on the sixth postoperative day. No instances of nausea or vomiting were observed during the postoperative period in the hospital. The child was noted to have one carious tooth. According to the oral mucositis classification system developed by the World Health Organization (WHO), his condition was classified as Grade 0. He also reported experiencing fatigue and weakness, which he attributed to rapid weight loss. Despite a postoperative recommendation for hourly mobilization, the patient declined to walk, citing fatigue as the primary reason.

Table 1. Nursing Care Plan According to the "Nursing Model Based on Life Activities"

Nursing Diagnosis 1	Nursing Outcomes Classification (NOC) Ratings	Targeted NOC Outcomes	Nursing Interventions Classification (NIC)	Evaluation
Domain 12: Comfort **Class 1: Physical Comfort** **Diagnosis Code:** 00132 **"Acute Pain"** **Definition:** An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage (International Association for the Study of Pain); sudden or slow onset of any intensity from mild to severe, with an anticipated or predictable end. **Defining Characteristics** 1. Self-reported intensity using standardized pain scale; Visual Analog Scale (VAS): 9 2. Facial expression of pain 3. Expressive behavior: vigilance 4. Lack of desire to communicate when experiencing pain 5. Lack of desire to move **Related Factors** 1. Biological injury agent (acute appendicitis) 2. Physical injury agent (appendectomy surgery)	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1605 - Pain Control 1843 - Knowledge: Pain Management 2102 - Pain Level - VAS is between 0-1 1: Not good at all **(Goal 5)** - Observing a peaceful facial expression 2: Slightly good **(Goal 5)** - Verbal indication of the absence of pain 1: Not good at all **(Goal 4)** - Participation in in-bed exercises 1: Not good at all **(Goal 4)** - Continuity in daily activities 1: Not good at all **(Goal 5)**	2380 - Medication Management 2300 - Medication Administration 1410 - Pain Management: Acute 6680 - Vital Signs Monitoring 0200 - Exercise Promotion 1. Pain severity was assessed using appropriate scales. 2. Post-surgical pain assessment was conducted every two hours for the first eight hours and every four hours for the next 16 hours. 3. Analgesic medications were administered per the physician's instructions (e.g., acetaminophen, ibuprofen). 4. Pain levels were reassessed and documented 30 minutes after administering intravenous analgesics. 5. Behavior and physiological indicators were monitored for signs of discomfort. 6. The child was observed during mobilization to ensure no discomfort occurred. 7. Activities to shift the child's focus from pain were identified. 8. Assistance with activities of daily living was provided, and the child was taught in-bed movements. 9. Desired frequency, duration, and intensity of the exercise program were communicated to the child. 10. - Compliance with the exercise program was monitored.	- Y.E.G's VAS: 4 (**3: Moderately good)/Goal not achieved** - His facial expression was peaceful. **(4: Significantly good)/Goal not achieved** - He verbally indicated partial pain absence. (**3: Moderately good)/Goal not achieved** The patient was encouraged to participate in in-bed exercises, and his attendance was monitored. **(4: Significantly good)/Goal achieved** - Information about his interest in reading books and technologically enhanced games was obtained from his parents. He was encouraged to engage in these activities despite experiencing discomfort. **(5: Very good)/Goal achieved**

Nursing Diagnosis 2	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 4: Activity/Rest **Class 2: Activity/Exercise** **Diagnosis Code:** 00085 **"Impaired Physical Mobility"** **Definition:** Limitation in independent, purposeful physical movement of the body or one or more extremities. **Defining Characteristics** 1. Expressing a sense of weakness 2. Displaying a reluctance to move 3. Demonstrating dependency on a parent for the majority of daily activities **Related Factors** 1. Weight percentile decreased from the 90^{th}-97^{th} percentile to the 5^{th}-25^{th} percentile. 2. Presence of connected medical equipment: ▪ Central catheter, ▪ Urinary catheter (1) ▪ Drains (2) - Reluctance to move due to pain - Lack of knowledge about the importance of physical activity	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	0212 - Coordinated Movement 0222 - Gait 0208 - Mobility - Expressing a desire to move 1: Not good at all **(Goal 5)** - Performing activities of daily living with the highest level of independence 1: Not good at all **(Goal 4)**	0200 - Exercise Promotion 0201 - Exercise Promotion: Strength Training 0202 - Exercise Promotion: Stretching 1. The child's ability to perform activities of daily living was assessed. 2. Realistic short-term goals were established. 3. The affected parts of the child's body were observed during activities of daily living. 4. An exercise program, including range-of-motion (ROM) exercises, was developed, and the child was encouraged to participate. 5. The child was motivated to perform movements independently as much as possible. 6. Signs and symptoms of exercise tolerance or intolerance during and after exercise (e.g., dizziness, weakness, extreme fatigue, angina, chest pain, excessive sweating, palpitations) were explained. 7. Precautions were taken to prevent falls: ▪ Bed rails were removed. ▪ Non-slip shoes or slippers were used. Night lighting was provided. 1. The child received positive feedback for efforts to participate in physical activity. 2. Parents were educated about ROM exercises.	- He stated that he would prioritize movement. **(4: Significantly good)/Goal not achieved** - He was found to be semi-dependent on his family for feeding, toileting, personal cleaning, and grooming. Support was provided to help him perform activities independently. (**3: Moderately good)/Goal not achieved**

Table 1. Nursing Care Plan According to the "Nursing Model Based on Life Activities" (*Continued*)

Nursing Diagnosis 3	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 2: Nutrition **Class 1: Ingestion** **Diagnosis Code:** 00002 **"Imbalanced Nutrition: Less Than Body Requirements"** **Definition:** Intake of nutrients insufficient to meet metabolic needs. **Defining Characteristics** 1. Upon initial admission to the hospital, the child's weight-for-age was between the 90th and 97th percentiles, indicating overweight. 2. Experienced rapid weight loss following the first operation. 3. Weight-for-age was recorded in the 75th percentile at the time of readmission. 4. A significant decrease in appetite was observed on the second day after the second operation. 5. Vomited four times after discharge, including the contents of meals. 6. After severe weight loss, the child's weight-for-age percentile dropped to between the 5th and 25th percentiles. **Related Factors** 1. Surgical interventions 2. Hospitalization 3. Treatment program 4. Tendency to consume sugary foods (preference for sweet foods) 5. - Self-blame (believing illness resulted from being overweight)	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1004 - Nutritional Status 1007 - Nutritional Status: Energy 1008 - Nutritional Status: Food and Fluid Intake 1009 - Nutritional Status: Nutrient Take - Body mass index within normal limits 1: Not good at all **(Goal: 3)** - Adherence to dietary recommendations 2: Slightly good **(Goal: 4)** - Staying hydrated 3: Moderately good **(Goal: 5)**	1100 - Nutrition Management 1. Nutrient and calorie intakes were monitored under the supervision of a dietician. 2. Daily nutrient and calorie requirements were determined according to the dietitian's recommendations. 3. An oral fluid intake of approximately 2000-3000 mL per day was achieved. 4. The child was provided with a pen and paper and instructed to regularly record when and what he ate. 5. The child and family were educated on the importance of avoiding simple sugars, foods containing trans fats, and caffeine to maintain a proper diet. 6. Participation levels in nutritional self-care activities were assessed. 7. Chewing and swallowing abilities were evaluated. 8. Food intake was monitored. 9. Regular oral care was assessed.	- After the second operation, he maintained his body weight at the 25th percentile. **(3: Moderately good)/Goal achieved** - A nutritionist was consulted for the child, and it was found that he was adhering to his diet, which included vegetables, chicken, soup, salad, and fruit. **(4: Significantly good)/Goal achieved** - A fluid regimen was established in consultation with the doctor. He was encouraged to monitor his intake and output. The child's dietary records were reviewed. **(5: Very good)/Goal achieved**
Nursing Diagnosis 4	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 11: Safety/Protection **Class 2: Physical Injury** **Diagnosis Code:** 00044 **"Impaired Tissue Integrity"** **Definition:** Damage to the mucous membrane, cornea, integumentary system, muscular fascia, muscle, tendon, bone, cartilage, joint capsule, and/or ligament. **Defining Characteristics** 1. Presence of an incision wound 2. Presence of a drain **Related Factors** 1. Undergoing surgery	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1101 - Tissue Integrity: Skin and Mucous Membranes 1102 - Wound Healing: Primary Intention 2305 - Surgical Recovery: Immediate Post-Operative - Knowledge of incisional wound care 1: Not good at all **(Goal: 3)** - Taking necessary precautions to protect the incision wound 2: Slightly good **(Goal: 4)**	3660 - Wound Care 1. The width and depth of the incision wound were assessed. 2. The wound site was inspected at least once daily for redness, discharge, swelling, temperature, and pain. 3. If the child's dressing was dirty, it was changed frequently; otherwise, it was changed once a day. 4. The child was advised to avoid harsh cleaners, hot water, excessive rubbing, pressure, and frequent cleaning when attending to the wound area. 5. The child's drain and the surrounding skin were regularly assessed. 6. The child's nutritional status was evaluated. 7. Emphasis was placed on the importance of consuming a balanced diet with all essential nutrients, including carbohydrates, protein, fats, and vitamins, particularly protein and vitamin C. 8. The child and family were informed about maintaining a neutral head and body position when moving in bed. 9. Attention was directed toward maintaining airway patency, and the child was educated on its importance. 10. The significance of deep breathing and coughing exercises was explained, and their effectiveness was evaluated. 11. A Triflow device was provided, and the child's breathing was closely monitored. 12. The need to protect the wound from impact was thoroughly explained.	- The child stated that he had learned wound care, and wound size and dressing were assessed daily. **(4: Significantly good)/Goal achieved** - The child consistently took measures to protect his wound during monitoring. **(4: Significantly good)/Goal achieved**

(*Continued*)

Table 1. Nursing Care Plan According to the "Nursing Model Based on Life Activities" (*Continued*)

Nursing Diagnosis 5	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 9: Coping/Stress Tolerance **Class 2: Coping Responses** **Diagnosis Code:** 00125 **NANDA Label: Powerlessness** **Definition:** The lived experience of lack of control over a situation, including a perception that one's actions do not significantly affect an outcome. **Defining Characteristics** 1. Expressing feelings of weakness 2. Inability to perform activities previously managed independently (e.g., while he met his own needs at home, he has become semi-dependent on his parents due to weakness since hospitalization) 3. Dependence on others 4. Inability to participate in care (e.g., semi-dependency in performing activities of daily living) **Related Factors** - Inadequate interpersonal interactions (e.g., reluctance to communicate with the environment) - Treatment program - Hospitalization - Self-blame (e.g., believing the illness is due to being overweight)	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1606 - Participation In Health Care Decision 1302 - Coping 0313 - Self-Care Status 0906 - Decision Making 1844 - Knowledge: Acute Illness Management - Child does not express feelings of powerlessness 1: Not good at all **(Goal: 3)** - Declaration that events are under his control 1: Not good at all **(Goal: 3)** - Participation in healthcare decisions 2: Slightly good **(Goal: 4)**	7460 - Patient Rights Protection 5230 - Coping Enhancement 5250 - Decision-Making Support 1665 - Functional Ability Enhancement 1. Situations, events, and practices the child could control were identified. 2. The level of confidence in his decision-making was assessed. 3. The extent to which the child could take responsibility for matters affecting him was evaluated. 4. Issues over which the child felt powerless and factors contributing to his sense of powerlessness were identified. 5. The child was guided to recognize his strengths, value, and assets. 6. He was provided with information about his condition and treatment. 7. The child was allowed to make decisions about his care. 8. He was made aware of changes and progress in his daily situation. 9. The child's level of responsibility was maintained. 10. The importance of making his own decisions was explained to the child.	- He stated that his weakness persisted. **(2: Slightly good)/Goal not achieved** - expressed feelings of powerlessness during his care practices but also acknowledged that he considered himself a strong person and that his family was always there for him and had his back. **(2: Slightly good)/Goal not achieved** - He participated in feeding, self-care practices, and health care decisions. **(4: Significantly good)/Goal achieved**

Nursing Diagnosis 6	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 4: Activity/Rest **Class 1: Sleep/Rest** **Diagnosis Code:** 00198 **"Disturbed Sleep Pattern"** **Definition:** Time-limited interruptions of sleep amount and quality due to external factors. **Defining Characteristics** 1. Change in normal sleep pattern (tendency to sleep 3-4 hours during the day and 8-10 hours at night) 2. Fragmented sleep, with interruptions every 2-3 hours 3. Restlessness (expressing a desire to go home to escape the unfamiliar environment) **Related Factors** - Acute pain - Inactivity - Presence of medical equipment (NG tube, drain, catheter, etc.) - Itching and rashes on the back caused by a drug allergy	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	0003 - Rest 0004 - Sleep - The child maintains a normal day and night sleep cycle. 3: Moderately good **(Goal: 5)**	0740 - Bed Rest Care 1850 - Sleep Enhancement 6040 - Relaxation Therapy 1. Individual, environmental, and treatment-related factors affecting sleep were assessed. 2. The child was instructed to monitor his sleep pattern, which was recorded. 3. The child's hobbies and activities were encouraged to limit daytime sleep and promote alertness. 4. The family was advised to engage with the child during the day to discourage excessive daytime sleeping. 5. Environmental adjustments, such as regulating light and noise, were implemented to create a conducive sleeping environment. 6. The child was advised to avoid foods and beverages that could interfere with sleep before bedtime. 7. Activities that promote alertness, such as playing chess, were introduced to help reduce daytime sleepiness.	- It was observed that factors such as weakness, pain, immobility, itching, rashes, the presence of medical equipment, and environmental stimuli like sound and light negatively affected sleep health. The child's daytime sleeping persisted. **(4: Significantly good)/Goal not achieved**

Table 1. Nursing Care Plan According to the "Nursing Model Based on Life Activities" (*Continued*)

Nursing Diagnosis 7	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 4: Activity/Rest **Class 5: Self-Care** **Diagnosis Code:** 00108 **"Bathing Self-Care Deficit"** **Definition:** Impaired ability to perform or complete bathing activities independently. **Diagnosis Code:** 00109 **"Dressing Self-Care Deficit"** **Definition:** Impaired ability to perform or complete dressing activities independently. **Diagnosis Code:** 00102 **Feeding Self-Care Deficit** **Definition:** Impaired ability to perform or complete self-feeding activities. **Defining Characteristics** 1. Asking for help with dressing and undressing 2. Requesting assistance from the mother for eating and bathing **Related Factors** 1. Surgery for acute appendicitis 2. Weakness 3. Tiredness 4. Presence of attached medical equipment 5. Fear	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	0300 - Self-Care: Activities of Daily Living 0301 - Self-Care: Bathing 0302 - Self-Care: Dressing 0303 - Self-Care: Eating 3100 - Self-Management: Acute Illness - Ability to perform activities such as dressing, personal hygiene, toileting, and bathing independently. 2: Slightly good **(Goal: 4)**	1610 - Bathing 1800 - Self-Care Assistance 1801 - Self-Care Assistance: Bathing/Hygiene 1802 - Self-Care Assistance: Dressing/Grooming 1803 - Self-Care Assistance: Feeding 1. The negative effects of inactivity on performing activities of daily living were identified. 2. Plans were developed to increase self-care capacity by addressing deficits in knowledge, skills, and behavior. 3. The child's ability and strength to participate in self-care activities were assessed. 4. The child was encouraged to perform all the self-care activities he was capable of, with breaks provided as needed, and was supported to participate. 5. The child's opinions and preferences regarding his care were taken into consideration.	- The risk of dependence persists. Due to inactivity and weakness, the child remains semi-dependent on his parents for most activities of daily living, including feeding, elimination, dressing, and personal hygiene. While he was able to perform some self-care activities with the help of his family, he continued to express feelings of powerlessness. **(3: Moderately good)/Goal not achieved**

Nursing Diagnosis 8	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 9: Coping/Stress Tolerance **Class 2: Coping Responses** **Diagnosis Code:** 00148 **"Fear"** **Definition:** Response to a perceived threat that is consciously recognized as a danger. **Defining Characteristics** 1. Avoiding eye contact 2. Speaking quickly 3. Expressing fear of the unknown 4. Stating that significant weight loss between his first and second surgeries frightened him. **Related Factors** - Being in an unfamiliar environment	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1213 - Fear Level: Child 1215 – Self-Awareness 1404 - Fear-Self Control - Appropriate expression of the child's fears 3: Moderately good **(Goal: 4)** - Identification of signs of anxiety in the child 3: Moderately good **(Goal: 5)**	5880 - Calming Technique 5230 - Coping Enhancement 5270 - Emotional Support 1. The child's level of anxiety and associated physical responses were assessed, and the child was encouraged to recognize these situations within himself. 2. The family was contacted to provide social support for the child. 3. The child and family were informed about the procedures to be performed, what to expect before and after the operation, and details about the operating theatre. 4. A meeting with the parents was scheduled to discuss their fears regarding their child's illness. During the meeting, they were encouraged to express their concerns. 5. The child was encouraged to use positive self-talk, such as "I feel safe. Everything is going well." 6. Medical jargon was avoided when communicating with the child and family. Conversations were conducted slowly, calmly, and in an easily understandable manner.	- The child openly expressed his fears: ▪ *He stated that he thought he would experience pain again and that he would need equipment such as a nasogastric (NG) tube and drains again.* - The child's concerns were addressed and resolved. - Following the meeting, the mother and father expressed feeling more relieved. **(5: Very good)/Goal achieved**

(*Continued*)

Table 1. Nursing Care Plan According to the "Nursing Model Based on Life Activities" (*Continued*)

Nursing Diagnosis 9	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 9: Coping/Stress Tolerance **Class 2: Coping Responses** **Diagnosis Code:** 00146 **"Anxiety"** **Definition:** Vague, uneasy feeling of discomfort or dread accompanied by an autonomic response (the source is often nonspecific or unknown to the individual); a feeling of apprehension caused by anticipation of danger. It is an alerting sign that warns of impending danger and enables the individual to take measures to deal with that threat. **Defining Characteristics** 1. The child stated that he had no knowledge of the operation 2. Tense facial expression 3. Avoiding eye contact 4. Fear of experiencing the same pain and suffering from the first operation **Related Factors** 1. The first operation was difficult, and the second was a relapse with similar symptoms 2. The child sleeps with his mother 3. His mouth remained closed for an extended period during the first operation 4. He had a NG tube and drains	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1211 - Anxiety Level 1201 - Hope 1209 - Motivation 1302 - Coping 1402 - Anxiety Self-Control - Helping the child recognize anxiety 3: Moderately good **(Goal: 5)** - Explaining techniques for managing anxiety 3: Moderately good **(Goal: 5)** - Using techniques to manage anxiety 3: Moderately good **(Goal: 5)**	5820 - Anxiety Reduction 5900 - Distraction 5310 - Hope Inspiration 1. The child's and parents' levels of anxiety and physical reactions to anxiety were assessed. The child was made aware of his anxiety symptoms (e.g., tense facial expression and avoiding eye contact), while the parents were unaware of their own anxiety responses. 2. A meeting was scheduled with the parents to address their concerns and anxiety regarding their child's illness, encouraging them to express their thoughts. 3. Information was provided on methods to cope with anxiety, such as breathing exercises and walking. 4. The child's family was contacted to provide social support. 5. Details about the operation, what the child would experience before and after surgery, and the operating room were explained. 6. The child was encouraged to use positive self-talk, such as "I feel safe. Everything is going well." 7. Medical jargon was avoided when speaking to the child and parents. Communication was slow, calm, and easy to understand. 8. The child was encouraged to imagine being pain-free, that the situation was progressing well, and that the operation would be successful. 9. It was recommended that the child listen to instrumental relaxing music. 10. Therapeutic relationships with significant others (e.g., sibling and friends) were encouraged. 11. The parents were informed about involving other family members in the treatment and care process and rotating caregiving duties. A discussion was held to raise awareness about the importance of social support systems.	1. The child described the symptoms of anxiety and stated that his subjective distress had decreased. **(5: Very good)/Goal achieved** 1. Techniques for coping with anxiety were explained. **(5: Very good)/Goal achieved** 1. Anxiety and coping techniques were implemented effectively. 2. After the meeting, the mother and father expressed feeling more relieved. 3. Following the discussion, caregiving responsibilities at the hospital were alternated between the mother and father. **(5: Very good)/Goal achieved**
Nursing Diagnosis 10	**NOC Ratings**	**Targeted NOC Outcomes**	**NIC**	**Evaluation**
Domain 6: Self-Perception **Class 3: Body Image** **Diagnosis Code: 00118** **"Disturbed Body Image"** **Definition:** Confusion in the individual's mental image of their physical self. **Defining Characteristics** 1. Changes in body function 2. Presence of an incision wound 3. Inability to engage in typical activities within the hospital setting; prior to hospitalization, the child frequently interacted with peers and participated in physical activities such as football and basketball. Since admission, he has been largely confined to using his phone. 4. Non-verbal responses indicating concerns about excessive weight 5. Lifestyle changes **Related Factors** Environmental barriers, including the hospital environment	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1200 - Body Image - The child will verbally express alignment between body reality and body perception 2: Slightly good **(Goal: 4)** - The child will exhibit social participation rather than avoidance and will use adaptive coping or social skills 2: Slightly good **(Goal: 4)** - The child will use cognitive strategies or other coping skills to improve body image perception and enhance function 2: Slightly good **(Goal: 4)**	5220 - Body Image Enhancement 1. Psychosocial questions were asked regarding the incision wound on the child's body. 2. The parents' attitudes toward the child's body image and acceptance were observed, and they were educated about the importance of their role in this process. 3. Symptoms of social withdrawal, limited eye contact, and expressions of low self-esteem were identified, and a meeting was held with the child and family to address these issues. 4. The family's level of acceptance of the child's body changes was assessed. 5. The social support level for the child and family was evaluated, and the positive impact of social support on body image was explained. 6. The child was encouraged to express his perception of his own body.	- The child verbally expressed alignment between body reality and body perception. **(4: Significantly good)/Goal not achieved** - It was determined that the child had partially accepted his health condition. **(3: Moderately good)/Goal not achieved** - The child was able to identify actions that could positively impact his appearance. **(4: Significantly good)/Goal not achieved**

Table 1. Nursing Care Plan According to the "Nursing Model Based on Life Activities" (*Continued*)

Nursing Diagnosis 11	NOC Ratings	Targeted NOC Outcomes	NIC	Evaluation
Domain 7: Role Relationships **Class 3: Role Performance** **Diagnosis Code:** 00052 **"Impaired Social Interaction"** **Definition:** Insufficient or excessive quantity or ineffective quality of social exchange. **Defining Characteristics** 1. Inability to engage in typical activities within the hospital setting. Before hospitalization, the child frequently interacted with peers, engaging in physical activities such as football and basketball. Since admission, he has been largely confined to using his phone. 2. Increased daytime sleeping (sleeping 2-3 hours during the day, with a tendency to sleep) 3. Restlessness (the child occasionally expresses a desire to go home) **Related Factors** Environmental barriers, such as being confined to the hospital environment	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	0902 - Communication 1502 - Social Interaction Skills 1503 - Social Involvement 1504 - Social Support Choosing how to spend free time 3: Moderately good **(Goal: 5)** Participation in appropriate activities 3: Moderately good **(Goal: 5)** Expressing satisfaction with activities during free time 3: Moderately good **(Goal: 5)**	7280 - Sibling Support 7140 - Family Support 4410 - Mutual Goal Setting 1. The child was encouraged to identify his strengths (e.g., through the "My Strengths" game). 2. The child's interests were identified, such as playing football and basketball with friends and playing computer games. 3. The child's emotional, physical, and social reactions to activities were assessed (e.g., semi-dependence on the family due to weakness and reluctance). 4. The level of responsibility assumed by the child was evaluated (e.g., mostly semi-dependent on the family). 5. Alternative hobbies suitable for the hospital environment were identified (e.g., reading books, playing brain games, playing chess). 6. He was supported in engaging in enjoyable activities during his free time. 7. Stimulation was provided by allowing the child to listen to his favorite music. 8. Plans were made to allow visits from suitable patients. 9. The child's participation in hobbies was monitored. 10. Visits from people important to the child were facilitated. 11. The child was encouraged to participate in self-care activities as much as possible. 12. Independence was promoted. 13. Positive feedback was provided to encourage responsibility and behavior changes. 14. The child's brother's willingness to support him was identified, and frequent visits were arranged. Family members were encouraged to visit regularly. 15. A meeting was organized between the parents and other patients and families experiencing similar illness. Other parents were asked to share their experiences.	- He was provided with options for how to spend his free time. **(5: Very good)/Goal achieved** - Participation in appropriate activities was ensured. **(5: Very good)/Goal achieved** - The child expressed satisfaction with the activities he engaged in during his free time. -After the meeting, the parents expressed that they felt understood. **(5: Very good)/Goal achieved**
Nursing Diagnosis 12	**Targeted NOC Outcomes**	**NOC Ratings**	**NIC**	**Evaluation**
Domain 11: Safety/Protection **Class 2: Physical Injury** **Diagnosis Code:** 00038 **"Risk for Trauma"** **Definition:** Sensitivity to tissue injuries that could endanger health. **Risk Factors** 1. Unlocked bed wheels 2. Slippery floor 3. Weakness 4. Fatigue 5. Presence of an incision 6. Hospital environment 7. Attached medical equipment	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	1828 - Knowledge: Fall Prevention 1809 - Knowledge: Personal Safety 1811 - Knowledge: Prescribed Activity 3209 - Knowledge: Wound Management 1. Avoiding trauma 3: Moderately good **(Goal: 5)** 1. Taking precautions to prevent trauma 3: Moderately good **(Goal: 4)** 1. Proper performance of prescribed activity 3: Moderately good **(Goal: 4)**	6490 - Fall Prevention 1806 - Self-Care Assistance: Transfer 3660 - Wound Care 1. The child's socioeconomic status was assessed. 2. A "four-leaf clover" symbol was placed in the room to indicate falling risk. 3. The family was educated on age-appropriate safety measures, environmental safety precautions, and how to respond in emergencies. 4. It was explained that the child should refrain from physical activities for six weeks. 5. The family's knowledge regarding child safety was assessed. 6. Parents were instructed on the proper use of car seats and seat belts for after discharge. 7. The child and family were informed about how to protect the incision site.	- It was observed that trauma was avoided. **(5: Very good)/Goal achieved** - Precautions to prevent trauma were implemented, and the family's adherence to these measures was monitored. **(4: Significantly good)/Goal achieved** - The child was noted to exercise caution in his actions and conduct. **(4: Significantly good)/Goal achieved**

(*Continued*)

Table 1. Nursing Care Plan According to the "Nursing Model Based on Life Activities" (*Continued*)

Nursing Diagnosis 13	Targeted NOC Outcomes	NOC Ratings	NIC	Evaluation
Domain 11: Safety/Protection **Class 1: Infection** **Diagnosis Code:** 00004 **"Risk for Infection"** **Definition:** Vulnerable to invasion and multiplication of pathogenic organisms, which may compromise health. **Risk Factors** 1. Presence of an incision 2. Hospital environment 3. Attached medical equipment	**Indicators/ Ratings** **1: Not good at all** **2: Slightly good** **3: Moderately good** **4: Significantly good** **5: Very good**	0802 - Vital Signs 0800 - Thermoregulation 1924 - Risk Control: Infectious Process - Signs and symptoms of infection are not observed. 2: Slightly good **(Goal: 4)** - The child and family should be informed about infection risks and prevention measures. 3: Moderately good **(Goal: 5)** - Body temperature within normal limits. 2: Slightly good **(Goal: 4)** - Vital signs within normal limits. 3: Moderately good **(Goal: 5)**	6520 - Health Screening 6540 - Infection Control 6550 - Infection Protection 3900 - Temperature Regulation - Signs and symptoms of infection were monitored: ▪ Preoperative body temperature ranged from 38.5°C to 39°C, and postoperative temperature ranged from 37.5°C to 37.8°C. ▪ Pulse rate was 104–108 beats per minute. ▪ No secretions or discharge from the wound site were observed. ▪ Urine output and color were normal. Skin temperature was equal and normal on both sides of the body.1. Laboratory results were evaluated (CRP: 11; WBC: 10,600; HGB: 12.2; PLT: 573,000; Biochemistry: normal). 2. The child and family were educated on the symptoms of infection (e.g., fever, changes in urine appearance, wound secretion or discharge). 3. The importance of proper hand washing, including its role as the most basic practice to prevent infection, the recommended frequency, and the correct technique, was explained to the child and his family. 4. Nutritional intake and content were monitored following the initiation of oral feeding, with input from a dietitian. 5. The role of diet in wound healing and immunity was explained. 6. The room was ventilated regularly, and the importance of maintaining ventilation was highlighted.	1. Signs and symptoms of infection have not been observed, but the risk remains. (**3: Moderately good)/Goal not achieved** 1. The child and family reported that they understood the factors that could lead to infection and the measures that could be taken to prevent it. **(5: Very good)/Goal achieved** 1. Body temperature remained within sub-febrile limits. (**3: Moderately good)/Goal not achieved** 1. Vital signs: Pulse: 104-108 min; Respiration: 22 min; Blood pressure: 130/80 mmHg; Oxygen saturation: 94%. **(5: Very good)/Goal achieved**

Eliminating Body Wastes

The body's metabolic waste products are excreted through processes such as urination, defecation, respiration, and sweating.[14] During the child's admission and hospitalization, there was no evidence of hematuria, pain, burning, malodorous urine, or changes in urine color. A urinary catheter was inserted during his hospital stay. Prior to admission, the stools were observed to have a solid consistency. Throughout hospitalization, the child did not report symptoms of constipation or diarrhea. The frequency of bowel sounds was recorded as six per minute on July 7, 2022. However, on July 30, 2022, the presence of bowel sounds could not be discerned. During his hospitalization, he received assistance from his family with bowel movements.

Personal Cleaning and Dressing

As defined by Roper et al.,[18] this activity includes perineal hygiene, hair care, nail care, dental and oral hygiene, hand washing, body washing, and bathing. He exhibited generalized weakness and fatigue, accompanied by pain related to his condition. There was no evidence of deterioration in his overall body hygiene. However, his mother provided assistance with activities such as bathing, washing his hands and face, hair care, and nail cleaning.

Maintaining Body Temperature

The body temperature regulation system is critical for maintaining a constant body temperature. Fluctuations in environmental temperature can compromise the body's ability to maintain a stable internal environment, potentially jeopardizing normal physiological functioning.[14] His body temperature was observed to exceed the normal range (38.5°C-38.8°C) during the preoperative period for both the first and second surgical procedures.

Mobilizing

The ability to move is essential for numerous activities integral to human existence, including work, recreation, and exercise. Restrictions on movement can have a detrimental impact on an individual's lifestyle and social activities.[13,14] He was largely dependent on his mother or father for performing most daily activities. The child was equipped with a central catheter, a post-urination drain, and another drain. During the postoperative period, he was unable to stand without assistance for the first three days.

Working and Playing

For most people, employment is a fundamental aspect of survival. Unemployment can lead to a range of health and social issues. Additionally, the lack of time and financial resources often associated with unemployment may prevent individuals from participating in social activities, such as attending the theater or cinema or exercising at a gym.[14,18] Being a minor, he was not engaged in gainful employment. However, he suffered from a range of health issues that significantly impacted his social interactions. The necessity of undergoing surgery and the presence of pain prevented him from engaging in recreational activities. While hospitalized, he spent his leisure time engaging in activities such as playing on a mobile phone and viewing content on a tablet device. The detrimental effect of his physical and mental health on social activities was evident. He stated, "I do not and do not want to meet with my friends face to face or on the phone because I am in the hospital." He allocated only a limited amount of time to leisure activities.

Expressing Sexuality

Expression of sexuality pertains to how individuals perceive themselves and their bodies in relation to others and how they behave within society.[14] he displayed age-appropriate behavior, and no abnormalities were noted in his expression of sexuality.

Sleeping

Sleep is a vital process that enables individuals to eliminate accumulated stress from their daily lives. During sleep, body cells undergo growth and repair, emphasizing the importance of adequate rest.[14,18,19] He typically does not experience difficulties with his sleep pattern when at home. However, following his initial surgical procedure, he began experiencing sleep-related issues. The patient reported acute pain that disrupted his sleep and affected his nutritional status, leading to a disturbed sleep-wake cycle. He faced difficulties sleeping due to the presence of medical equipment, including a NG tube, drain, and catheter. His sleep was fragmented, with interruptions every 2–3 hours caused by inactivity and discomfort. His total sleep duration ranged between 8-10 hours per day. He reported that the application of cold water to his joints in the hospital setting helped facilitate the onset of sleep. This effect is attributed to a reduction in body temperature prior to sleep, which may aid in initiating sleep and enhance the body's rest and recuperation processes.

Dying

According to Roper et al.,[18] the focus is not on the cessation of life but on the process of dying. The possibility of death is a reality for many individuals, necessitating a shift in perspective as there are no guaranteed methods to extend life. For example, many cancer patients may experience a brief period of recovery due to pharmacological interventions. However, they must navigate their lives with the awareness that this respite is ultimately transient.[14] The initial surgical procedure was particularly challenging for him, as he lacked prior hospital experience. He later required hospitalization for similar symptoms, which heightened his fear of the unknown. His anxiety was further exacerbated by the recurrence of pain and suffering experienced during his first surgery. Factors such as the prolonged closure of his mouth during the initial procedure, the presence of an NG tube and drains, and significant weight loss between surgeries all contributed to his apprehension about the upcoming surgery.

Data Collection

This study concerns a pediatric case involving a patient diagnosed with acute appendicitis in the Pediatric Surgery Clinic of a hospital affiliated with the Ministry of Health. The patient subsequently developed ileus on the 18th postoperative day. The following is an example of a maintenance plan developed based on the NANDA, NIC, and NOC. This work has been reported in accordance with the CARE (CAse REport) Guideline[20] (Supplementary file). Data were collected through face-to-face interviews and physical examinations conducted by the researcher.

Discussion

In this case, the nursing care provided for the signs and symptoms observed in the child who underwent two surgical procedures due to acute appendicitis was presented within the framework of the "Life Activities Model." The Nursing Model Based on Life Activities has been increasingly utilized in the care of pediatric patients with both acute and chronic disease diagnoses.[16,21,22]

Using the Nursing Model Based on Life Activities, holistic nursing care was provided to him, addressing 11 life activities. During the care process, the following nursing diagnoses were made: "Impaired Physical Mobility, Acute Pain, Imbalanced Nutrition: Less Than Body Requirements, Impaired Tissue Integrity, Powerlessness, Disturbed Sleep Pattern, Bathing Self-Care Deficit, Feeding Self-Care Deficit, Fear, Anxiety, Impaired Social Interaction, and Risk for Infection." Interventions were planned accordingly. As a result of the care provided in line with the model, an observable improvement in Y.E.G's clinical condition was noted. The utilization of the Life Activities Model facilitated the identification of key alterations in the daily routine of the 13-year-old patient. Additionally, his actual and potential needs were assessed more comprehensively and addressed more effectively. In the literature, care provided to pediatric patients with Hirschsprung's disease using the Nursing Model Based on Life Activities included diagnoses such as "Anxiety, Risk of Infection, Social Isolation, and Self-Care Deficit Syndrome."[23] For the care of a child with Stevens-Johnson Syndrome, the diagnoses of "Impaired Skin Integrity" and "Constipation" were identified.[24] In the care of a child with epidermolysis bullosa, similar to our study, the diagnoses of "Risk of Infection, Impaired Skin Integrity, Self-Care Deficit Syndrome, and Social Isolation/Impaired Social Interaction" were made.[25]

In the care of a child with chronic kidney failure, similar to our study, the diagnoses of "Risk of Infection, Risk of Falls, Social Isolation, and Delayed Growth and Development" were identified.[16] Similarly, in the care of a child with cerebral palsy, osteomyelitis, and epilepsy, the diagnoses of "Disturbed Sleep Pattern, Self-Care Deficit, and Imbalanced Nutrition: Less Than Body Requirements" were made.[20]

Conclusion

To provide quality and effective care, it is crucial to utilize the Nursing Model Based on Life Activities in conjunction with NANDA, NIC, and NOC. Based on these considerations, it is evident that nursing care guided by this model is essential to enhance the quality of life in children. These case reports are expected to provide evidence for nurses and nursing students, thereby contributing to improved quality of care.

Informed Consent: Prior to participation, verbal consent was obtained from the child subject. Additionally, written consent was obtained from the child's family using the "Informed Voluntary Consent Form."

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