HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

A PATIENT / FAMILY CARE STUDY ON ENTERIC FEVER

BY

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A PATIENT / FAMILY CARE STUDY SUBMITTED TO NURSING AND MIDWIFERY COUNCIL OF GHANA IN PARTIAL FULFILMENT FOR THE AWARD OF LICENSE TO PRACTICE AS A PROFESSIONAL REGISTERED GENERAL NURSE

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PREFACE

The Patient/Family care study is a detailed write up of the care rendered to a patient and family by a final year student nurse. It entails a record of encounter between the patient, family and community on one hand and the healthcare team on the other hand, right from patient's admission until termination of care by the student nurse. The patient/family care study gives an opportunity to the student-nurse to interact with the patient in order to identify his strengths and health problems, and to put in measures to help the patient recover in good time. It exposes the student nurse to the real-world situation and experiences as he/she interact with the patient and relatives as well as with other health care providers. This prepares him/her for the professional practice ahead. The patient/family care study build on good communication skills, interpersonal relationship and research skills of the student nurse.

My reason for carrying out this patient/family care study is that, as a final year student, it is a pre requisite by the Nursing and Midwifery Council that I achieve this objective in partial fulfilment for the award of licence to practice as a registered general nurse in Ghana. Also, this care study will enable me to translate my theoretical knowledge into practice in assessing, planning, implementing and evaluating nursing care. For the purpose of confidentiality, all persons referred to in this report will only be identified by their initials.

ACKNOWLEGDEMENT

All praises and thanks be to the Almighty God, the sustainer of life who gave me the strength to start and complete this care study successfully.

My sincerest gratitude is reserved for Miss A.A my care study patient. Without her consent to be studied, this care study would never have been a success. Not forgetting her family members for their commendable cooperation and support throughout the period of the study.

Exceptional thanks go to the nurse-in-charge and the nursing staff of the Paediatrics Ward at St. Theresa's Hospital Nkoranza. They gave me support and morale for this care study. The supporting staff and colleague students whom I worked with at the Paediatrics Ward have not been forgotten for various manners of help.

Thanks go to my supervisor Mr. Samuel Osafo Asare, his valuable time, patience, criticism and persistent guidance has ensured the successful completion of this care study.

My deepest gratitude goes to the principal Mrs. Monica Nkrumah and the entire tutorial staff of the Holy Family Nursing and Midwifery Training College- Berekum.

My greatest gratitude goes to my parents, their moral, spiritual and financial support has undoubtedly ensured my coming this far. They taught me the value of respect, hard work and patience.

Finally, I acknowledge and thank all authors and publishers whose works have been used as references in this care study.

INTRODUCTION

This script is about nursing care rendered to Miss A.A during the period of admission, hospitalization and after discharge. Miss A.A is an 8years old girl with a medical diagnosis of Enteric Fever who was admitted to the Paediatric ward of St. Theresa's Hospital Nkoranza on 17th November, 2021 at 10:40am. Miss A.A came to the ward accompanied by mother per ambulatory and through the Out-Patient Department (OPD) with the complains of abdominal pains and has been vomiting for about three times and passing watery stools. Miss A. A looked lethargic and very ill at the time of admission but later as she underwent medical treatment and nursing management during the 6days of care, patient's condition improved daily. The investigations conducted on Miss A.A are as follows: Full blood count (WBC, RBC, Hb), blood test for malaria parasite, blood for Widal test, height, weight, skin and eyes were assessed. Vital signs were also checked and recorded. Miss A. A was placed on the following medications: IV Ringer's Lactate 1.5L x 24hours, IV Ciprofloxacin 220mg bd x 5days, ORS 1 litre PRN, Tablet Paracetamol 500mg tds x 5days. With good medical and nursing care and the cooperation of the patient and family, she recovered early. She was discharged on the 22nd November, 2021. On the day of discharge, Miss A.A looked healthy and energetic. Patient's home was visited on three occasions, one before discharge and two after discharge to assess her health status. She reported for review on 26th November, 2021.

This report is organized into five chapters based on the nursing process phases

Chapter one deals with the assessment of Miss A.A and family. This involves collection of data about the patient to identify her problems. Data collected for assessment includes biographical data, developmental, past and present medical history, the family's medical and socioeconomic history as well as the patient's lifestyle and hobbies. An account is also given on the admission of the patient, literature review on Enteric Fever as well as validation of data also discussed.

Chapter two deals with the analysis of data. A comparison is made between the signs and symptoms experienced by the patient and those obtained in literature review. Diagnostic investigations, clinical manifestations and pharmacology of drugs are analysed in tabular form. Causes of illness, treatment and complications are also discussed. Data is analysed to arrive at appropriate nursing diagnosis reflecting the patient's response to actual or potential health problems.

Chapter three comprises the planning phase of the nursing process and has the tabulated plan of care for the stated nursing diagnoses spanning the objective criteria, nursing orders, intervention and evaluation.

Chapter four tackles the actual implementation of the care giving summary descriptions of activities which were undertaken from the moment of first contact with the patient at the time of admission to the ward till discharge and subsequent follow up with home visit.

In chapter five, evaluation of nursing care given to the patient and her family from encounter till termination of nurse-patient relationship is discussed. A summary and conclusion then end this care study report by reviewing thematic issues that arose in the care study from admission to last home visit after discharge.

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CHAPTER ONE

ASSESSMENT OF PATIENT/FAMILY

1.0 Introduction

Assessment is an appraisal or evaluation of patient's condition by a physician or nurse, based on clinical and laboratory data, medical history, and the patient's account of symptoms. It is also a detailed, systematic physical examination of a patient. Nursing assessment is therefore, the systematic collection of all data and information relevant to the care of patients, their problems and needs (Taber & Venes, 2013)

Assessment is the initial nursing process and the beginning of nursing care to the patient and family which gives information not about the patient and his/her family only but the community as well. During this phase, all pieces of information are obtained gradually, starting from the first day of admission. The data collected would enable the nurse to give holistic nursing care and making clinical judgment using the appropriate nursing care plan for the patient, his/her family and the community in which he/she lives. In this study, assessment was done through observation, interview, physical examination, laboratory investigation and family history/report from the patient and significant others. Information collected from various sources is used to arrive at a solution to patient complaints made during hospitalization. This also reflects on past and current data about the physiological, psychological as well as environmental and lifestyle factors which may affect health.

1.1 Patient's Particulars

Particulars is defined as details or information about a person, especially when officially recorded (McIntosh, 2013). Miss A.A is an eight-year-old girl born on 30th October, 2013 to Mr. O.O.M and Mrs. A.P at St. Theresa's Hospital, Nkoranza. She is a native of Nkwabeng, a suburb of Nkoranza in the Bono East Region of Ghana. Miss A.A has one sibling and is the

second child of her parents. She resides with her parents at Nkoranza in a house with the number NWO-472. She is dark in complexion and about 1.1m tall and has a weight of 21.5kg. She is also not physically impaired. Miss A.A is an Akan by tribe, Bono to be precise. She speaks Twi. Patient is a pupil of Dayak Memorial International School at Nkwabeng and is in class 1. She is a Christian and a member of the Seventh Day Adventist Church at Nkwabeng. Her favourite meal is Rice with Tomato Stew. Her next of kin is her mother, Mrs. A.P

1.2 Patient's Family Medical History.

Medical/surgical history provides information about illness and surgery which have familial or genetic tendencies (Weller, 2014). This includes; current state of health of grandparents, parent and siblings, deceased members of the family and cause of death, disorder in the family, mental illness, hospitalization, any known allergies and the use of over-the-counter drugs. From Miss A. A's mother, there is no history of chronic disease such as diabetes mellitus, hypertension, asthma, sickle cells disease, mental disorder and epilepsy among others in the family. As for common illness like fever, malaria, abdominal pain, headache and the likes, patient and other relatives do have them occasionally. Her mother revealed that they do not also resort to over-the- counter medications or herbs and traditional medicine to treat minor illnesses especially at the early stage but seek medical treatment from Nkwabeng Health Center. According to the patient's mother, the entire family that is the whole nuclear family comprising of the father and the mother and the extended family (grandparents) is alive and there is no surgical history. Patient's family is enrolled on the National Health Insurance Scheme (NHIS), which is their source of health financing. There is no record of any allergy to food or any medication yet in the family.

1.3 Family's Socioeconomic History.

Socio-Economic History is the social science that studies how economic activities are affected and shaped by social processes. In general, it analyses how families progress, stagnate, or

regress because of their local economy. (Hellmich, Simon N., 2015).

Patient and parents have a peaceful, harmonious and cordial relationship with their friends and neighbours. Patient's financial needs depends solely on her parents. Patient's mother is a seamstress and her father is a teacher. Their estimated annual income is about GH₵20,000. My patient has been registered under National Health Insurance Scheme (NHIS). The income generated is used to support the family, pay school fees as well as hospital bills, which is not covered by the National Health Insurance Scheme. They are Christians, specifically involve in religious activities. They also engage in communal activities such as clean-up exercise.

1.4 Patient's Developmental History

Developmental history is an account of how and when a person met developmental milestones such as; walking and talking (Shiel, 2016). Growth is defined as the progressive development of a living thing, especially the process by which the body reaches its point of complete physical development (Weller, 2014). Development on the other hand is defined as the process of growth and differentiation (Weller, 2014). It includes cognitive development, psychosexual development and psychosocial development. Maturation is simply defined as ripening or developing (Weller, 2014).

According to patient's mother, she went through the nine-month gestational period without any problem and had a spontaneous vaginal delivery on 30th October, 2013 at St. Theresa's hospital-Nkoranza. She attended antenatal clinic at Nkwabeng health center. Miss A.A is the second born of her parents and she went through normal developmental milestone and could control neck at the fifth month, sat at the seventh month without support, crawled at the eighth month, was able to say mama and daddy at the tenth month and also walked in the tenth month. She was breastfed exclusively for six months. She was given complementary feeds after the sixth month. Patient's mother also added that her child was immunized against the vaccine

preventable diseases. According to patient's mother, patient did not suffer from any childhood preventable diseases as revealed in her child health record book.

My patient is Eight (8) years of age and falls under the fourth psychosocial development theory by Eric Erickson which is industry vs. inferiority (5-12 years).

This period of development aims at a productive situation to completion gradually supersedes the whims and wishes of play. The fundamentals of technology are developed. The failure of trust, autonomy and industrious skills may cause the child to doubt, leading to shame, guilt and experience of defeat and inferiority. The child must deal with demands to learn new skills or risk essence of inferiority and incompetence. Children at this stage are becoming aware of themselves as individuals. They work hard at being responsible, and doing things right.

They gain better understanding of cause and effect, and of calendar time. At this stage, children are eager to learn and accomplish skills that are more complex (reading, writing and telling time). They also get to form moral values, recognize cultural and individual differences and are able to manage most of their personal needs and grooming with minimal assistance. At this stage, children might express their independence by talking back and being disobedient and rebellious. Erickson viewed the elementary school years as critical for the development of self-confidence. Ideally, elementary school provides opportunity to achieve the recognition of teachers, parents and peers by producing things, drawing pictures, solving addition problems, writing sentences and so on. Therefore, if children are encouraged to make and do things and are praised for their accomplishments, they begin to demonstrate industry by being diligent, persevering at task until completed and putting work before pleasure.

If children are interned punished for their effort or if they realize they are incapable of meeting their teachers and parents' expectation, they develop feeling of inferiorities about their capabilities. Based on this theory I can confidently say that my patient is industrious as I

observed her during my second home visit-assisting her mother with household chores. Her mother also confirmed that her daughter usually solves questions given as homework and also ask questions about things that are not clear to her and any misconceptions.

1.5 Patient's Lifestyle/Hobbies

Lifestyle is defined as the pattern of daily living that an individual develops (Weller, 2014). The patient's mother said before the illness patient was very active during the day. She goes to bed around 7:00pm and wakes up around 6:00am. Although she usually sleeps in the afternoon but she enjoys a better sleep at night with no difficulties. She brushes her teeth and baths twice daily sometimes once. She empties her bladder at least three times daily depending on the number of fluids or kind foods taken and moves bowel once especially in the morning. According to the mother, patient's favorite dish is rice with tomato stew. Patient's mother said during week days Miss A.A usually goes to school and on weekends, stays home and goes to church on Saturdays. On week days, when she wakes up in the morning, she brushes the teeth, mother assists her to take her bath and dresses up for school. Her mother usually cooks food for her when going to school. She sets out to school around 6:30 am and closes around 2:30pm. She usually read as her hobby. Miss A.A dislikes being teased at. On vacations, she sometimes goes for vacation classes.

1.6 Patient's Past Medical History

Past medical/surgical history describes the significant past diseases or illnesses and surgeries; including complications or trauma that are relevant to a patient's current state of health (Tidy, 2019).

My conversation with her mother revealed that she has been immunized against the vaccine preventable diseases (diphtheria, tetanus, whooping cough, measles, poliomyelitis and yellow fever) as evidenced by the Bacilli Clamette Guerin (BCG) mark on her right shoulder.

According to patient's mother, she said Miss A.A. has been admitted to hospital and has suffered serious disease condition before such as malaria which were usually treated when she gets to Nkwabeng health center or sometimes St Theresa's hospital. A.A has no disability. According to the mother, patient has no known allergies to drugs, foods, animals or insects. Patient's mother also added that my patient has never undergone any surgery since she was born.

1.7 Patient's Present Medical history.

According to patient's mother, patient's condition started on 15th November, 2021, that is about two days before patient was admitted. It started as a gradual process where patient complained of fever, abdominal pains and nausea, which later aggravated showing signs such as vomiting every food she ate, diarrhea that is stools which was watery and contained mucus at least three times a day and fever. These prompted her mother to bring her to the Out Patient Department of the St. Theresa's hospital Nkoranza on 17th November 2021. Patient's vital sign were checked and recorded on arrival. She was seen by Physician Assistant (PA) O.D. who provisionally diagnosed her of enteric fever. The following laboratory investigation were requested;

- Full blood count
- Blood film for malaria parasite
- Blood for Widal test

Patient was then recommended to be admitted to the children's ward for further treatment.

1.8 Admission of Patient.

Admission is defined as allowing a patient to stay in hospital for observation, investigation, treatment and care (Davis, 2020). Miss A.A was admitted to the Paediatrics' ward of the St Theresa's hospital Nkoranza on 17th November, 2021 at 10:50am in the morning accompanied

by mother per ambulatory and through the out-patient department (OPD), with the provisional diagnosis of enteric fever. Mother was welcomed and offered a seat at the nurses' station. I established rapport and introduced myself and other staffs to her. Patient identity was confirmed by the help of the patient's name, address and the patient's age. Patient particulars such as name, sex, occupation, age, home or residential address, religion and next of kin and diagnosis were recorded in the admission and discharge book and the ward daily states. The mother was asked of the complaints and she said her daughter has been complaining of abdominal pains and has been vomiting for about three times and passing diarrheal stools which were loose and watery. On observation, patient looked lethargic. She was made an admission bed and also introduced to the other children at the ward. The patient was seen and provisionally diagnosed of enteric fever by PA. O.D at the Out Patient Department.

The vital signs were checked and recorded as.

Temperature 38.8 ^{o}C

Pulse 128bpm

Respiration 23cpm

Weight 21.5kg

Miss A.A was tepid sponged and Tab paracetamol 500mg was administered to her to reduce her temperature. However, the following Laboratory investigation had been ordered at the O.P.D.

1. Full blood count (WBC, RBC, Hb)
2. Blood test for malaria parasite
3. Blood for Widal test

Results from the Laboratory investigation was received by Dr. D. A and he confirmed the diagnosis of Enteric Fever. The following medication were ordered for patient:

1. IV Ringer's Lactate 1.5L x 24hours
2. IV Ciprofloxacin 220mg bd x 5days
3. ORS 1 liter PRN
4. Tablet Paracetamol 500mg tds x 5days

The hospital policy concerning payment was explained to them that without national health insurance they have to make deposit of some amount to be paid at the cash point. The patient's personal belongings were sent to bed side and patient's mother was orientated to the ward, bathrooms, lavatory, litter bins, source of water and nearby wards and units. She was also informed of the visiting hours, meal, and time for inpatient review. I informed the ward in charge of my interest of taking the patient for patient and family care study and he agreed and the doctor as well. I reintroduced myself as a Final-year student nurse of Holy Family Nursing and Midwifery Training College Berekum. I told her mother that as part of the training, Final year students are to take a patient each, and render individual care to the patient and family with the help of staff from time of admission till discharge and to do follow-up and home visits during the period of admission and after discharge. This is in partial fulfilment of the requirements of Nursing and Midwifery Council for the award of license to practice as a professional nurse. For this reason, I sought her permission to use her child for the patient and family care study of which she agreed and promised to participate fully in care of the Patient. I made patient/family comfortable and understand that the hospital is a temporal place for health care and would be discharged home when the condition improves. The reason for choosing this condition was that, although it is not a chronic disease, it accounts for numerous death cases. Having enteric fever for a care study is a great opportunity for me to have an in-depth knowledge about the condition in order to educate people on the condition and also to

contribute to the existing knowledge about the condition, this will help nursing profession and rendering of care. I thanked them for their cooperation and patient was put to bed and handed them to the afternoon nurses when leaving the ward.

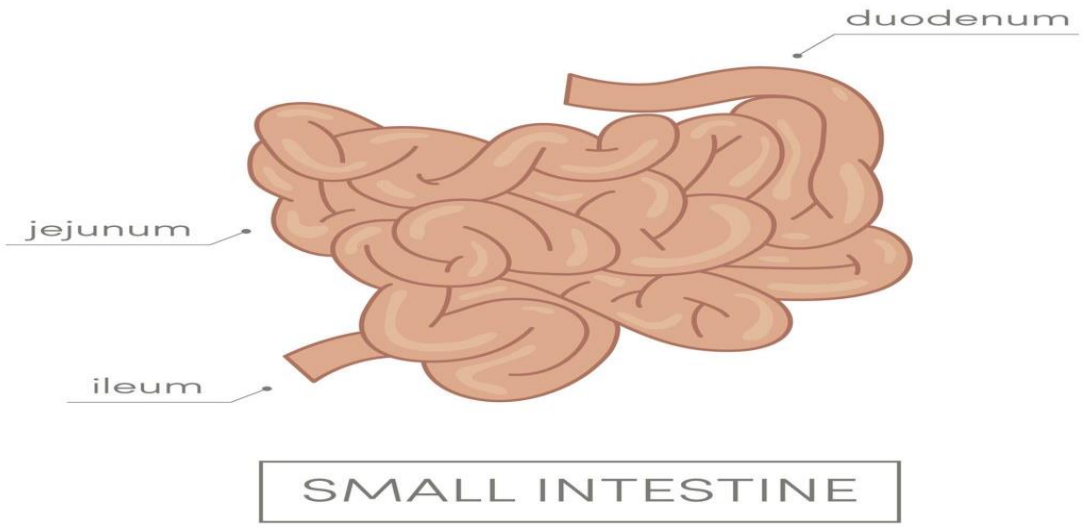
1.9 Patient/ Family's Concept of Illness

This talk about the patient's idea or perception about her condition (Weller, 2014). Patient's mother believes it was normal for one to fall sick due to one reason or the other and agree to the fact that improper hand washing is one of the major factors accountable to Patient's ailment and probably the environment. Madam A.P believes God's healing power through His son Jesus and the care rendered by the health team will make her daughter well so she can join her friends at home and school. She did not attribute her ward's illness to any spiritual attack, deities or superstition.

1.10 Literature Review on Enteric Fever

The motive behind literature review is to depict the textbooks point of view about the disease condition. Thus, it will help broaden the scope of knowledge of the nurse so that he/she can compare the patient's experience, investigation and treatment with what has been documented. With regards to this, the nurse uses selected textbooks, journals and other valid literatures in order to gather authentic information about the disease condition from etiology to complications of the disease condition.

Fig 1.1: Basic anatomy and physiology of the small intestines.



According to Hinkle and Cheever (2014), the basic anatomy and physiology of the small intestine is;

The small intestine is the body's major digestive organ. Its structure is specially adapted for these functions. Within its twisted passage ways digestion is completed and virtually all absorption occurs. Its length alone provides a large surface area for digestion and absorption, and that area is further increased by folds, villi, and microvilli. The small intestine is a convoluted tube extending from the pyloric sphincter of the stomach in the epigastric region to the ileocecal valve in the right iliac region where it joins the large intestine. It averages 2.5 cm in diameter; its length is about 5m in an adult. The small intestine is divided into three regions namely the duodenum, jejunum and the ileum, both intraperitoneal organs.

Duodenum: The duodenum, which is immovable and the shortest region, is retroperitoneal. It starts at the pyloric sphincter of the stomach and ends at the duodejejunal junction. It is relatively C-shaped tube which curves around the head of the pancreas and extends about 25 cm which is about 10 inches long. The ducts delivering bile and pancreatic juice from the liver and pancreas respectively unite close to the duodenum at a bulblike point called hepatopancreatic ampulla. The entry of bile and pancreatic juice is controlled by a muscular

valve called the hepatopancreatic sphincter.

Jejunum: This is the middle section of the small intestine and is about 2m long and extends from the duodenum to the ileum. The lumen of the jejunum is slightly larger than that of the ileum and the jejunum have more intestinal folds.

Ileum: The ileum is the final and the longest portion of the small intestine. It measures about 3m and joins the large intestine at a smooth muscle sphincter called the ileocecal sphincter valve, which controls the flow of material from the ileum to the caecum, the first part of the large intestine and prevents backflow.

Histology of the Small Intestine The wall of the small intestine is composed of the same four layers that make up most of the gastrointestinal tract: mucosa, sub mucosa, muscularis, and serosa but the mucosa and sub mucosa are modified to reflect the location and function of the intestine in the digestive pathway.

Mucosa: The mucosa is composed of a layer of epithelium, lamina propria, and muscularis mucosae. The epithelial layer of the small intestinal mucosa consists of simple columnar epithelium that contains many types of cells which is by bound by tight junctions and richly endowed with microvilli. Absorptive cells of the epithelium digest and absorb nutrients in small intestinal chyme. Also present in the epithelium are goblet cells, which secrete mucus. Three types of enteroendocrine cells are found in the intestinal glands of the small intestine: S cells, CCK cells, and K cells, which secrete the hormones secretin, cholecystokinin.

Sub mucosa: The sub mucosa is typical areolar connective tissue and it contains both individual and aggregated lymphoid nodules.

The lymph nodes are numerous in the sub mucosa at irregular intervals throughout the length of the small intestine. Larger nodes situated towards the distal end of the ileum are called

aggregated lymphatic follicles (payer's patches). Thus, the Payer's patches which increase in abundance toward the end of the small intestine reflect the fact that the large intestine contains huge numbers of bacteria that must be prevented from entering the bloodstream. The Brunner's gland produces alkaline (bicarbonate-rich) mucus that helps neutralize the acidic chyme moving in from the stomach. When this protective mucus barrier is inadequate, the intestinal wall is eroded and duodenal ulcers results.

Muscle layer and Serosa: Muscularis is typical and bilayered. Except for the bulk of the duodenum, which is retroperitoneal and has an adventitia, the external intestinal surface is covered by visceral peritoneum (serosa).

Blood supply, nerve supply and lymph drainage

The superior mesenteric artery is the artery of the midgut and therefore, of the small intestines; it comes off as the second branch from the anterior surface of the abdominal aorta .The superior mesenteric vein is a blood vessel that drains blood from the small intestine. The duodenum receives both sympathetic and parasympathetic innervations. The vagus nerve provides parasympathetic fibers via the celiac and the mesenteric plexuses, whiles the sympathetic trunk also gives fibers to the intestinal plexuses that travel along the pancreatoduodenal arteries. Lymphatic drainage from the wall of the distal small intestine, important especially in the young sheep as a major site of gut-associated with lymphoid tissue begins with a series of longitudinally oriented subserosal vessel. These vessels convey lymph to the mesenteric border of the intestinal wall and unite to form larger vessels which course through the mesentery to the mesenteric lymph node.

Functions of the small intestine

1. Onward movement of its contents by peristalsis, which is increased by parasympathetic

stimulation.

2. Secretion of intestinal juice, also increased by parasympathetic stimulation.
3. Protection against infection by microbes that have survived the antimicrobial action of the HCl in the stomach by the solitary and aggregated lymph follicles
4. Secretion of the hormones cholecystokinin and secretin
5. Absorbs about 90% of nutrients and water that pass through digestive system.

Definition of enteric fever

Enteric fever also known as typhoid fever is a bacterial infection which primarily affects the bowel.

Causative organism

It is caused by the *Salmonella typhi* (strictly termed S. *enterica sub-species enterica serotype typhi)* and *Salmonella parathyphi (A,B,C)* harbored or found in human feces.

Incidence

It affects mostly children and young adult and also all age groups. The peak age incidence is 5-25 years. It is also prevalent during the rainy season and has the high incidence in areas where there is poor or faulty personal and environmental hygiene with regards to human excreta and control of flies (Atindanbila, 2014). According to the most recent estimates, approximately 21 million cases and 222,000 typhoid related deaths occur annually worldwide (WHO, 2015).

Incubation period

It is mostly 10-14days.It can survive in water for seven (7) days, in sewage for fourteen (14)

days and in ice-cream for a month.

Mode of transmission

Enteric fever spread through faeco-oral transmission. It can also be transmitted when one ingests contaminated food or water.

Pathophysiology

The organism enters the body by way of the mouth following ingestion of contaminated food or water and invades the walls of the bowel. Rapid multiplication occurs and produces toxins which lead to manifestation of the first signs and symptoms such as fever, malaise, headache and progressive elevation of temperature and results in massive bacteremia that continues for about 10days. The organisms accumulate in the mesenteric lymph nodes called payers patches and other lymphatic tissue in the mucous membrane of the intestinal wall.

They may also infect other organs like the liver, spleen, gallbladder and kidneys. The blood vessels in the walls of the intestine become thrombosed and the swollen mass of the lymphatic tissue dies and sloughs away resulting in inflammation, ulceration hemorrhage and perforation of the intestinal walls leading to peritonitis.

Clinical manifestation

According to Hinkle and Cheever (2014), the clinical manifestation for enteric fever includes:

First week (also known as the stage of invasion);

The onset is gradual with:

- Malaise
- Anorexia

- Slow pulse
- Lethargy
- Slow rising fever
- Headache
- Generalized abdominal pain

Second week;

- Pyrexia with slight remission between 38^{o}C and 40^{o}C
- There may be rigor
- Constipation in the later phase
- Diarrhea occurs and the stool is greenish (pea soup)
- Chills
- Diaphoresis
- Weakness
- Delirium or drowsiness may be present
- Cough

Third week

- When there is delay in treatment during the second week the condition becomes more severe.
- Intestinal perforation and hemorrhage may occur.

- If the condition never improves, typhoid psychotic stage may set in with the following features;
    - Rapid weak pulse
    - Lethargy (muscular weakness)

Diagnostic investigation

According to Hinkle and Cheever (2014), the diagnostic investigation for enteric fever includes:

- Blood culture and sensitivity to isolate the causative organism and determine the appropriate antibiotic for treatment
- Clinical signs and symptoms
- Stool and urine culture to reveal causative organism
- Widal test; to detect antibodies of typhoid bacilli
- Blood film; to exclude malaria parasite.
- Full blood count; WBC may be low.

Medical management

- Specific Antibiotic treatment to eradicate salmonella typhi include Amoxicillin, ciprofloxacin, ceftriaxone, ofloxacin (floxin), chloramphenicol, ampicillin, metronidazole trimethoprim, sulfamethoxazole, furazolidone.
- High dose Dexamethasone for patient with delirium coma or shock in addition to antibiotics

- Analgesics such as diclofenac, ibuprofen, Paracetamol for pain.
- Intravenous fluid; ringer's lactate, normal saline, dextrose and others for the correction of electrolyte and acid base disturbance and for treatment of dehydration and diarrhea.
- Antipyretic

Surgical treatment

Laparotomy is done in case of typhoid perforation for bowel resection and anastomosis.

Nursing management

According to Smelter, Bare, Hinkle, & Cheever, (2014) the following nursing management were used in managing patient with enteric fever

Psychological care;

- Reassure patient and relatives of being in the hand of competent staff and encourage them to ask questions.
- Explain disease condition to the patient and relatives and answer questions been asked in clear and simple terms.
- Explain all procedures to patient.

Observation;

- Observe temperature, pulse, respiration and blood pressure, record and report any, abnormality found. If the temperature is high, tepid sponged and serve prescribed antipyretic drugs.
- Monitor intake and output.

- Record and observe for any signs of dehydration
- Observe vomiting for amount and color of blood.
- Observe bowel movement for diarrhoea.
- Observe patients mental state for sign of delirium.
- Measure abdominal girth because of possible abdominal distention.
- Observe the stool color, amount and odor.
- Observe skin for rashes.

Nutrition

- The diet should be light and nourishing.
- Serve well balance diet, high in calories and easily digestible foods and encourage him to eat to ensure proper functioning of the body.
- Serve food in small quantities but at frequent intervals.
- Encourage copious fluid intake.
- Food should be served attractively.
- Prescribed intravenous fluids should be given to treat diarrhea and vomiting or dehydration.

Rest and sleep

- Restrict visitors when necessary so patient can have enough rest.
- Provide comfortable bed to enable patient have a good rest.
- Group and perform nursing activities together to avoid disturbing patient.

- Nurse patient is a well-ventilated room.

Hydration

With onset of diarrhea and high temperature, there is the likelihood of dehydration. Hence Patient should be encouraged to take oral rehydration solution after passing stool in the absence of abdominal distension.

Administer prescribed IV fluids.

Personal hygiene

- Assist and encourage patient bath twice daily paying particular attention at the perineal area.
- Maintain oral hygiene
- Patient should be kept dry and clean.
- Patient finger nails should be kept short and clean.
- Hand washing should be performed before and after eating as well as after visiting the lavatory.

Elimination

- Observe bowl and bladder habits; take stool sample for laboratory studies.

Isolation

Typhoid fever is a communicable disease so the patient is nursed in an isolated room. She is given separate toilet articles which are disinfected soon after use. Visitors are restricted and all health workers who nurse the patient must ensure good infection prevention measures. Place

notice of restricted zone or area at patient's door and provide all the items the patient will need at her bed side.

Infection Prevention

- Isolate patient from other patients.
- Ensure barrier nursing including gloving and proper hand washing to prevent the infection of other patient and health personnel.
- Vomitus, urine, blood and stool should be disinfected before disposal.
- Decontaminate and disinfect soiled linen and clothing of patient.
- When serving a patient with bed pan, it should have a fitting lid
- Ensure personal hygiene.
- Patient's bedding and clothing should be decontaminated and washed properly.

Medication

- Serve prescribe medication.
- Support the patient during the period of toxemia; the patient may be drowsy, particularly incontinent or delirious.

Complications

Enteric fever if not carefully treated, it can lead to the following complication. The two most common and dreaded complications of enteric fever are;

- Intestinal hemorrhage; the loss of blood from the circulation into the gastrointestinal system.

- Intestinal perforation; perforation of a section of the digestive system or bowel which spread the infection to the nearby tissue. Perforated intestines occur when the smell intestine or the large intestine developed holes causing intestinal content to the abdominal cavity.
- Other complications of enteric fever are as follows;
- Meningitis; infection and inflammation of the membrane and fluid surrounding the brain and spinal cord.
- Hepatitis; the infection travels to the liver which causes the liver to be inflamed.
- Endocarditis; when typhoid fever is left untreated, the infection travels to the endocardium causing inflammation of the inner lining of the heart and valve.
- Myocarditis; as the infection is not treated earlier, it travels through the blood to the heart muscle causing inflammation.
- Neuritis; through blood circulation, the infection settles at the nerves which also lead to inflammatory process causing Neuritis.
- Renal failure; loss of the kidney's ability to filter waste from blood sufficiently.
- Peritonitis; Inflammation of the peritoneum occurs as the organism through blood circulation gets to the peritoneal space.
- Cholecystitis; Inflammation of the gallbladder as a result of blood infected with salmonella travelling to the blooder by circulation causing the inflammation.

Health education on prevention of enteric fever

- Environmental hygiene should be established in endemic areas.

- Protection and purification of water supplies.
- Sanitary waste disposal techniques.
- Avoidance of eating fresh, uncooked vegetables or unpeeled fruits (in endemic areas) that have not been washed in chlorinated water.
- Proper use of hand washing facilities by food handles
- The patient must be followed with routine stool culture after recovery to detect the development of the carrier state.
- Use of live oral typhoid vaccine for salmonella typhi (Ty 21a).
- Health education on the spread of and measures to prevent it from spreading is done
- Food hygiene practices that is; preparation and handling of food under hygiene condition and eating food worm.
- Isolation of infected person for treatment.
- Ensuring personal hygiene and general cleanliness.
- Good sanitation should be practiced by properly disposing of refuse.
- Carriers should be detected and isolated, quarantined and treated.
- All food vendors should have frequent medical examination for at least every six months and also, they should cover the food to prevent files from contaminating it.
- Human excrete should be treated well before they are used as fertilization.

Prevention

The prevention of enteric fever can also be grouped under three levels, they are;

1. **Control of reservoir**; the usual method of control of reservoir is their identification, isolation, treatment and disinfection

a) Identification; this is of a vital importance as the early symptoms are non-specific. Culture of blood and stool are important investigation in the diagnosis of cases

b) Isolation; since typhoid fever is infectious and has a prolonged course, the case are better transferred to a hospital for a better treatment as well as to prevent the spread of infection.

c) Treatment; chloramphenicol may be used. For adults, the dose is 500mg (approximately 500mg per kg of body weight per day). 4 hourly while febrile and there after 500mg 6 hourly for a total period of 14days equally effective. Resistances to these drugs are now on the rise. Ciprofloxacin is now the drug of choice.

d) Disinfection; Stool, vomitus and urine are the sole source of infection. They should be received in close containers and disinfected with five percent cresol for at least 2hours. All soiled cloths and linen should be soaked in a solution of 2% chlorine, washed and steam-sterilized.

2. Control of sanitation. Protection and purification of drinking water supplies improvement of basic sanitation and promotion of food hygiene are essential measure to interrupt transmission of typhoid fever. For instance, typhoid is never a major problem where there is a clean domestic water supply, sanitary measures, not followed by health education may produce only temporary results. However, when sanitation is combined with health education the effects tend to be cumulative, resulting in a steady reduction of typhoid morbidity.

3. Immunization; while ultimately control of typhoid fever must take the form of improved sanitation and domestic and personal hygiene, these are long term objectives in many developing countries. A complementary approach for prevention is immunization, which is the only specific preventive measure, likely to yield the highest benefit for the money spent. Immunization against typhoid fever does not give 100 percent protection, but it definitely

lowers both the incidence and seriousness of the infection. It can be given at any age upward of one year. It recommended to those living in endemic areas household contacts groups at risk of infection such as school children, hospital staffs and travelers' proceedings to endemic areas.

1.11 Validation of data

According to Weller (2014), validation is the extent to which a measure, indicator or method of data collection possesses the quality of being sound or true as far as it can be judged. The purpose of his data is to keep data from biases, errors and misinterpretation as possible. All the information gathered from the patients was found true after comparing with information obtained from patient relatives through series of interviews. The patient's folder provides the information to confirm the data collected. Also, home visits also helped validate the information gathered from the patient.

CHAPTER TWO

ANALYSIS OF DATA

2.0 Introduction

Analysis of data is a systematic examination and evaluation of data or information, by breaking it into its component parts to uncover their interrelationship, thus providing basis for problem solving and decision making (Weller, 2014). Analysis of data makes up the second phase of the nursing process. This contains information on the condition which is analyzed, interpreted and comparison of data gathered with standards. It involves the causes and clinical features of the condition and diagnostic investigation treatment given to the patient. This helps the nurse to identify the problems of the patient and her family, their strengths and also makes her nursing diagnoses, objectives and gives appropriate interventions.

2.1 Comparisons of Data with the Standard Diagnostic

In this phase data collected on the health of the patient and family is compared with those in the Literature review. It involves the clinical features, diagnostic investigation or tests, cause, treatment and complication.

Diagnostic Investigations or Tests

To help in diagnosis and treatment of the patient, the following investigations were carried out on her.

- Identification of clinical signs and symptoms presented.
- Widal test to detect antibodies of typhoid bacilli
- Full Blood Count (Hemoglobin level estimation, RBC, WBC).
- Blood film for malaria test to rule out malaria parasite.

Table 1: Diagnostic Investigations/Tests Compared with Standards

Diagnostic Measures in the Literature Review	**Diagnostic Measures conducted on Miss A.A.**
Blood culture to isolate the causative organism	Blood culture was not conducted
Identification of clinical signs and symptoms	Clinical features were used in diagnosing
Stool and urine test to review the causative organism	Stool and urine test was not conducted
Widal test to detect antibodies of typhoid bacilli	Widal agglutination test was conducted
Full blood count (WBC, RBC, Hb)	Full blood count was conducted
Blood film for malaria test to rule out malaria parasite	Blood film to rule out malaria was conducted

From the table above, it is evident that with the exception of blood culture test, stool and urine test which was found in the literature review but was not conducted on patient, the remaining was conducted. hence it can be concluded that right diagnostic investigations were conducted on my patient.

Table 2: Diagnostic Investigation.

DATE	SPECIMEN	INVESTIGATIONS	RESULTS	NORMAL RANGED	INTERPRETATION	REMARKS
17/11/21	Blood	Test for malaria parasite.	Negative	Negative	No malaria parasite present.	No antimalarial was administered.
17/11/21	Blood	Widal agglutination test	Salmonella typhi H and O titers equal to 1:160, Positive	1:140 to 1:160 which usually indicate positive	Abnormal indicating the presence of salmonella typhi in blood, meaning patient has typhoid fever.	IV ciprofloxacin 220mg tid x 5days was given
17/11/21	Blood	Full blood count Hemoglobin level estimation	12.2g/dl	Male-12-18g/dl Female-11-16g/dl Children -12 -18g/dl	Normal range. Indicating that patient was not anaemic.	No drugs were prescribed
		Red blood cell count	$4.37x10^6/mm^3$	$4.20\text{-}5.50\ x10^6/mm^3$	Red blood cell was within normal range	No prescribed hematinic was administered.
		White blood cell count (WBC)	$2.5\ x10^3mm^3$	$4.3\text{-}11.9\ x10^3\ mm^3$	WBC is low, indicating low immunity which put one at risk of acquiring infection	IV Ciprofloxacin 220mg tid x 5days was given

B. Causes of Patient's Condition

With reference to the causes of enteric fever in the literature review and the information given by the patient's mother, the possible cause of A. A's illness could be attributed to buying of food from the streets and in school which may be contaminated with salmonella typhi due to unhygienic condition of the food vendors and poor sanitation.

C. Clinical Manifestation

Table 3: Clinical Features Shown by Miss A.A. as Compared with Literature Review.

CLINICAL FEATURES IN TEXT BOOK PRESENTATION	**CLINICAL FEATURES SHOWN BY PATIENT**
Malaise	Patient had malaise
Anorexia, delirium, lethargy	Delirium was not observed but Anorexia and lethargy were observed
Bradycardia, cough and dyspnea	None of these (Bradycardia, dyspnea) were exhibited in patient but cough with no productive sputum
Sudden onset of fever, temperature in step ladder fashion	Fever was presented by the patient in the step ladder fashion.
Headache	Headache was exhibited by patient
Nausea, vomiting, abdominal pain and diarrhea	Abdominal pain, nausea, vomiting and diarrhea were present.
There may be rigor	Rigor was not exhibited
Constipation and distended abdomen	Patient had distended abdomen and constipation
Chills	Chills was exhibited by patient
Typhoid psychosis	Signs of typhoid psychosis were not exhibited

As seen in the comparison table above, patient exhibited most of the signs and symptoms of

the enteric fever, this shows that patient was rightly diagnosed.

D. Treatment

Simply refers to measures taken together with drugs in the management of a patient (Walter, 2013). The following under listed drugs were used in the management of my patient.

- IV Ciprofloxacin 220mg bd x 5days
- IVF Ringer's Lactate 1.5L for 24hours
- Tablet Paracetamol 500mg tds x 5days
- Syrup Lactulose 5mls tds x 3/7

Table 4; Treatment Given to My Patient as Compared to The Treatment from Literature Review.

TREATMENT FROM LITERATURE REVIEW	TREATMENT GIVEN TO PATIENT
1.**Intravenous fluids and electrolyte replacement** a. Normal saline b. Ringer's lactate c. Dextrose d. Oral Rehydration Salt	1.**Intravenous fluids and electrolyte replacement** a. Normal saline was not given b. Ringer's 1.5L x 24hours was given. c. Dextrose was not given d. Oral Rehydration Salt was not given.
2. Analgesics / Antipyretics a. Paracetamol b. Ibuprofen c. Diclofenac	**2. Analgesics / Antipyretics** **a.** Paracetamol was given b. Ibuprofen was not given c. Diclofenac was not given
3. Antibiotics Amoxicillin, ciprofloxacin, ceftriaxone, chloramphenicol, ampicillin, metronidazole trimethoprim, sulfamethoxole, furazolidone.	**3. Antibiotics** a. Ciprofloxacin was given
Anti-inflammatory a. Dexamethasone	**Anti-inflammatory** a. dexamethasone was not given
Laxatives Lactulose	It is not in literature review but was given to treat constipation.

Table 5; Pharmacology of Drugs

DATE	DRUGS	STANDARD DOSAGE AND ROUTE OF ADMINISTRA-TION	DOSAGE AND ROUTE ADMINISTERED TO PATIENT	CLASSIFICA-TION	DESIRED EFFECT	ACTUAL ACTION OBSERVED	SIDE EFFECT/ REMEDIES
17/11/21	Ciprofloxacin	**Dosage:** Adult: 500- 750 mg x bd Child:1month-18years 20mg/kg x bd **Route:** Oral and Intravenous	**Dosage:** 220mg bd x 5days **Route**; Intravenous	Antibiotics (Quinolones)	To treat bacterial gastroenteritis caused by the following among others: Escherichia coli, Salmonella spp, Shigella spp.	Bacteria that caused patient's enteric fever were controlled.	Skin rash, dizziness, drowsiness and insomnia, stomach pains or discomfort, diarrhea, nausea and vomiting and No side effect was observed in patient
17/11/21	Ringer's Lactate Infusion	**Dosage**: Depends on clinical condition of patient. **Route**: Intravenously	**Dosage**: 1.5 litres for 24 hours **Route**: intravenously.	Fluid and electrolyte replacement	Increases blood pH and replaces fluid loss.	Patient was hydrated.	Hives and itching, swelling of the eyes, face, or throat, coughing, sneezing, or difficulty in breathing. None was observed.

TABLE 5; Pharmacology of Drugs Continued

DATE	DRUGS	STANDARD DOSAGE AND ROUTE OF ADMINISTRA-TION	DOSAGE AND ROUTE ADMINISTERED TO PATIENT	CLASSIFICATION	DESIRED EFFECT	ACTUAL ACTION OBSERVED	SIDE EFFECT/ REMEDIES
17/11/21	Paracetamol	**Dosage:** Adult: 0.5–1 g every 4–6 hours; maximum 4 g per day. Child: 8–9 years: 360–375 mg every 4–6 hours; maximum 4 doses per day. **Route**: Oral, Rectal, Intravenous	**Dosage**: 500mg tds x 5days **Route**: Oral	Antipyretic and analgesic (non-narcotic)	To relieve pain by preventing inflammation and decreasing body temperature.	Patient's body temperature subsided.	Skin reactions and other allergic reactions, liver damage. No side effect was observed.
20/11/21	Lactulose	**Dosage:** Child 5–17 years: 5–20 mL twice daily, adjusted according to response Adult: Initially 15 mL twice daily, adjusted according to response **Route**: Oral, Rectal.	**Dosage:** 5mls tds x 3/7 **Route**: Oral	Osmotic Laxative	Increases the number of bowel movement per day and the number of days you have bowel movement	Patient's constipation was relieved	Stomach pain, bloating, diarrhea, constipation, gas, nausea, vomiting. None was observed.

Complication

Patient developed no complication as observed in the literature review of the enteric fever because she was brought early and there was effective medical and nursing care.

2.2 Patient/family strength

Strength refers to the ability to do things that need a lot of physical or mental effort (McIntosh, 2013).

- Patient was able to tolerate cold drinks when she experienced increased body temperature (17/11/21)
- Patient's relative (mother) was cooperative and was able to express how she felt. (17/11/21)
- Patient was able to express intensity and aggravation factors associated with her headache. (18/11/21)
- Patient was able to express intensity and aggravation factors associated with her abdominal pains. (18/11/21)
- Patient's mother was willing to learn more about her daughter's condition. (19/11/21)
- Patient could tolerate oral fluids. (20/11/21)

2.3 Patient/family health problem

Problem is defined as a situation, person that needs attention and needs to be dealt with or solved (McIntosh,2013).

- Patient had high body temperature (38.8^{o}C). (17/11/21)
- Patient's mother was anxious (17/11/21)

- Patient had headache (18/11/21)
- Patient complained of abdominal pains (18/11/21)
- Patient/mother had little knowledge about the condition (19/11/21)
- Patient had constipation (20/11/21)

2.4 Nursing diagnoses

- Thermoregulation imbalance (pyrexia 38.8^{o}c) related to infectious process in the small intestine (17/11/21)
- Anxiety related to unknown outcome and diagnosis of enteric fever (17/11/21)
- Headache related to enteric fever process (18/11/21)
- Abdominal pain related to inflammatory process in the small intestine (18/11/21)
- Deficient knowledge related to inadequate information on the causes, signs and symptoms, prevention and complication of enteric fever. (19/11/21)
- Constipation related to decreased bowel movement in the intestines. (20/11/21)

CHAPTER THREE

PLANNING FOR CLIENT AND FAMILY CARE

3.0 Introduction

Planning is the third phase of the nursing process. Planning entails structurally and systematically assessing and identifying a client's problem, setting objectives, establishing interventions and evaluating results. Plans for implementation are based on assessing and diagnosis of the client's health status and concerns. The nursing diagnosis provides direction on how to care for the patient and to assist the restoration, maintenance and promotion of health.

3.1 Objective/Outcome Criteria

1. Patient's body temperature will reduce to normal (36.2^0C -37.2^0C) within 4hours as evidenced by:
    a. The nurse recording temperature within the range (36.2^0C -37.2^0C)
    b. Patient's mother verbalizing that her daughter's temperature has reduced
2. Patient's mother will be relieved of anxiety within 48 hours as evidenced by:
    a) Patient's mother verbalizing that she is no more anxious.
    b) Nurse observing that mother is calm and participating in patient's care.
3. Patient will be relieved of headache within 8 hours as evidenced by patient:
    a) Patient verbalizing that there is decrease or absence of headache.
    b) Nurse observing patient having normal vital signs (pulse and respiration)
4. Patient abdominal Pain will subside within 24 hours as evidenced by:
        a. Patient verbalizing that she is no longer in pain
        b. Nurse observing patient having a cheerful face
5. Mother will have adequate information on the causes, mode of transmission, pathophysiology, complications, prevention and available management of the condition within 24 hours as

evidenced by:

a. Mother responding to questions asked correctly.

b. Nurse observing that mother is answering questions correctly.

6. Patient will be able to re-establish normal bowel elimination within 24hours as evidenced by:

a. Patient maintaining passage of soft, formed stool at a frequency perceived as normal by patient relative.

b. Patient stating relief from discomfort of constipation.

TABLE 6: NURSING CARE PLAN FOR MISS. A.A

DATE/ TIME	NURSING DIAGNOSIS	OBJECTIVES/ OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
17/11/21 11:00am	Thermoregulation imbalance (Pyrexia 38.8^{0}C) related to infectious process of the small intestines.	Patient's body temperature will reduce to normal (36.2^{0}C-37.2^{0}C) within 4 hours and maintain throughout the period of admission as evidenced by: 1) The nurse recording temperature within the range of (36.2^{0}C-37.2^{o}C). 2) Patient's mother verbalizing that her daughter's temperature has reduced.	1. Perform tepid sponging when required. 2. Monitor vital signs (temperature) every 15 minutes. 3. Provide enough ventilation. 4. Remove heavy clothes and put on light clothing 5. Administer prescribed antipyretic medications.	1. Patient was tepid sponged with lukewarm water (28.2^{0}C) whenever temperature was high 2. Patient's temperature trend was monitored and recorded to ensure deviation from normal (36.2-37.2) every 15minutes. 3. Windows were opened and fans were switched on for fresh air into the room. 4. Heavy clothes were removed and light clothing was put on to prevent her from generating heat. 5. Prescribed antipyretic drugs, 500mg of Tab paracetamol was served to the patient.	17/11/21 2:30pm	Goal fully met as nurse recorded temperature value within (36.2^{0}C - 37.2^{0}C) and Patient's mother verbalized that her daughter's temperature has reduced.	A. R

TABLE 6: NURSING CARE PLAN FOR MISS. A.A

DATE/ TIME	NURSING DIAGNOSIS	OBJECTIVES/ OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
17/11/21 1:00pm	Anxiety (mother) related to unknown outcome and diagnosis of enteric fever.	Patient's mother will be relieved of anxiety within 48 hours as evidenced by; 1) Patient's mother verbalizing that she is no more anxious. 2)Nurse observing that mother is calm and participating in patient's care	1. Reassure patient's mother. 2. Explain enteric fever to the mother. 3. Explain to patient's mother every procedure to be done. 4. Encourage patient's mother to ask questions. 5. Allow parents to express knowledge gained after explanation of child's condition. 6. Involve patient mother in the care planning.	1. Mother was reassured of being in the hands of competent health team. 2. The causes, signs and symptoms, precipitating factors and available management for enteric fever was explained to the mother. 3. Every medication and procedure performed was explained to her. 4. Patient's mother was encouraged to ask questions which were answered tactfully to allay their anxiety. 5 Patient's mother shared knowledge gained after explanation of enteric fever by sharing her experience with other patients. 6. Patient's mother was involved in the care planning.	19/11/21 1:00pm	Goal fully met as patient's mother verbalized that she is no more anxious and nurse observed that mother was calm and participated in patient's care.	A. R

TABLE 6: NURSING CARE PLAN FOR MISS. A.A

DATE/ TIME	NURSING DIAGNOSIS	OBJECTIVES/ OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
18/11/21 8:00am	Headache related to enteric fever process.	Patient will be relieved of headache within 8 hours as evidenced by: 1. Patient verbalizing that the headache has subsided. 2. Nurse observing patient experiencing increased level of comfort.	1. Explain to mother the reasons for the headache and the available management. 2. Assess Patient's level of pain. 3. Nurse patient in a calm environment. 4. Employ diversional therapy such as conversation with family members 5. Administer prescribed analgesics.	1. Mother was told the headache is as a result of bacteria and the drugs given will relieve the headache. 2. Patient's pain was assessed by observing face for grimace and using the Wong Baker Faces Pain scale (0-10). 3. Patient was nursed in a calm environment by restricting visitors and activities carried out without interruption. 4. Patient was engaged in conversation with mother and other patients. 5. Tab paracetamol 500mg was administered.	18/11/21 4:00pm	Goal fully met as Patient verbalized that there is decrease or absence of headache and nurse observing patient experiencing increased level of comfort.	A. R

TABLE 6: NURSING CARE PLAN FOR MISS. A.A

DATE/ TIME	NURSING DIAGNOSIS	OBJECTIVES/ OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
18/11/21 8:30am	Abdominal pain related to inflammatory process in the small intestine.	1. Patient abdominal Pain will subside within 24 hours as evidenced by: a. Patient verbalizing that she is no longer in pain. b. Nurse observing patient has a cheerful face.	1. Asses patient's level of pain. 2. Employ diversional therapy. 3. Monitor vital signs frequently. 4. Nurse patient in a quiet environment. 5.Administer prescribed medication	1. Patient's pain was assessed by observing face for grimace and using the Wong Baker Faces Pain scale (0-10). 2. Diversional therapy was employed as nurse engaged patient in a conversation 3. Temperature, pulse, respiration and oxygen saturation level was monitored 4hourly. 4. Visitors were restricted and activities were carried out without interruption. 5. Tab paracetamol 500mg was administered	19/11/21 8:30am	Goal fully met as patient verbalized that she is no longer in pain and nurse observed patient had a cheerful face	A. R

TABLE 6: NURSING CARE PLAN FOR MISS. A.A

DATE/ TIME	NURSING DIAGNOSIS	OBJECTIVES/ OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
19/11/21 9:00am	Deficient knowledge related to inadequate information on the causes, signs and symptoms, prevention and complication of enteric fever.	Mother will have adequate information on the causes, mode of transmission, pathophysiology complication prevention, and available management of the condition within 8 hours evidenced by; a. Mother responding to questions asked correctly.	1. Reassure patient and family 2. Assess the mother's level of understanding. 3. Explain the condition to the mother. 4. Encourage mother to ask questions for clarifications. 5. Educate patient's mother on medication	1. Patient and family were reassured and rapport established with them. 2. Mother's level of understanding was assessed by asking her the causes, precipitating factors and management on enteric fever. 3. The causes, signs, symptoms, complications preventive measures and available management were explained to mother. 4. Patient's mother asked some of the risks factors for the condition and she was answered correctly 5. Patient's mother was educated on medications and its side effects	19/11/21 5:00pm	Goal fully met as Mother being able to provide basic information with regards to causes, signs, symptoms, complications, preventive measures and available management of enteric fever.	A. R

TABLE 6: NURSING CARE PLAN FOR MISS. A.A

DATE/ TIME	NURSING DIAGNOSIS	OBJECTIVES/ OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
20/11/21 11:30am	Constipation related to decreased bowel movement in the intestines.	Patient will be able to re-establish normal bowel elimination within 24hours as evidenced by: 1. Patient maintaining passage of soft, formed stool at a frequency perceived as normal by patient mother. 2. Patient stating relief from discomfort of constipation.	1. Assess mobility and level of physical activity 2. Commence stool chart. 3. Start a fluid balance chart 4. Encourage high fiber diet and oral fluid intake. 5. Administer prescribed medication.	1. Patient's mobility and level of physical activity was assessed. 2. Amount, pattern and type of stool was monitored. 3. Patient's fluid intake and output was monitored. 4. Patient was encouraged to take high fiber diet and oral fluids. 5. Syrup lactulose 5mls and ciprofloxacin 220mg were administered.	21/11/21 11:30am	Goal fully met as evidenced by patient stating relief from discomfort of constipation	A. R

CHAPTER FOUR

IMPLEMENTATION OF THE PATIENT / FAMILY CARE PLAN

4.0 Introduction

This is the act of the nurse and client carrying out a plan of care. It involves putting into practice the intervening nursing care. This stage aims at making patient comfortable, avoiding complication and promoting early recovery. It is broadly classified into three (3) namely; summary of the actual care given, preparation of the patient/family toward discharge and also follow up visit made to ensure continuity of the care rendered to the patient/family.

4.1 Summary of Actual Nursing Care Rendered to Miss. A.A and Relatives

The actual nursing care rendered to patient and her family commenced on the day of admission 17th November, 2021 to the time the care was terminated (2nd December, 2021). The management of the patient and family was planned to meet the physiological, psychological, emotional and spiritual needs.

4.1.1 First Day on Admission (17th November, 2021)

Miss A.A was admitted to the children's ward of the St. Theresa's Hospital, Nkoranza on 17th November, 2021 at 10:50am in the morning accompanied by mother per ambulatory and through the out-patient department (OPD), with the provisional diagnosis of enteric fever. Mother was welcomed and offered a seat at the nurses' station. I established rapport and introduced myself and other staffs to her. Patient particulars such as name, sex, occupation, age, home or residential address, religion, next of kin and diagnosis were recorded in the admission and discharge book and the daily ward state. The mother was asked of the complaints and she said her daughter has been complaining of abdominal pains and has been vomiting for about three times and passing

diarrheal stools which were loose and watery. On observation, patient looked lethargic. She was made an admission bed and also introduced to other children at the ward. The patient was seen and provisionally diagnosed of enteric fever by PA. O.D at the Out-Patient Department (OPD).

The vital signs were checked and recorded as.

Temperature 38.8 ^{o}C

Pulse 128bpm

Respiration 23cpm

Weight 21.5kg

Miss A.A was tepid sponged and Tab Paracetamol 500mg was administered to her to reduce her temperature. The following laboratory investigations had been ordered at the O.P.D.

1. Full blood count (WBC, RBC, Hb)
2. Blood for malaria parasite
3. Blood for Widal test

Results from the laboratory investigation was received by Dr. D.A and he confirmed the diagnosis of Enteric Fever. The following medications were ordered for the patient;

1. IV Ringer's Lactate 1.5L x 24hours
2. IV Ciprofloxacin 220mg bd x 5days
3. ORS 1 liter PRN
4. Tablet Paracetamol 500mg tds x 5days

The hospital policy concerning payments was explained to them that without National Health Insurance they have to make deposit of some amount to be paid at the cash point. The patient's personal belongings were sent to bedside and patient's mother was orientated to the ward, bathrooms, lavatory, litter bins, source of water and nearby wards and units. She was also informed of the visiting hours, meal, and time for inpatient review.

I informed the ward in Charge of my interest of taking the patient for patient and family care study and he agreed and doctor as well. I reintroduced myself as a second-year student nurse of Holy Family Nursing and Midwifery Training College Berekum. I told her mother that as part of the training, second year students are to take a patient each, and render care to the Patient and family with the help of staff from time of admission till discharge and to do follow-up and home visits during the period of admission and after discharge. This is in partial fulfilment of the requirements of Nursing and Midwifery Council for the award of license to practice as a professional nurse.

For this reason, I sought her permission to use her child for the patient and family care study of which she agreed and promised to participate fully in care of the Patient. I also made patient/family comfortable, understand that the hospital is a temporal place for health care, and would be discharged home when the condition improves. The reason for choosing this condition was that, although it is not a chronic disease, it accounts for numerous death cases. Having enteric fever for a care study is a great opportunity for me to have an in-depth knowledge about the condition in other to educate people on the condition and also to contribute to the existing knowledge of the condition, this will help nursing profession and rendering of care.

Nursing diagnoses were derived from the problems presented, prioritized, objectives were set and interventions were made.

At 11:00am, the first nursing diagnosis which was “thermoregulatory imbalance (pyrexia 38.8.C) related to infectious process of enteric fever” was made. An objective was set to reduce patient’s body temperature will reduce to normal (36.2^0C-37.2^0C) within 4hours as evidenced by the nurse recording temperature within the range of (36.2^0C-37.2^0C) and patient’s mother verbalizing that her daughter’s temperature has reduced. Miss A.A and her mother were therefore reassured that patient is in the hands of competent nurses and measures would be ensured to reduce the temperature to normal (36.2^0C-37.2^0C). Patient was tepid sponged with lukewarm water, vital signs were checked and recorded every 15 minutes, windows were opened and fans were switched on for fresh air into the room, patient’s temperature dropped to 38.1^0C. Heavy clothes were removed and light clothing was put on to prevent her from generating heat, prescribed antipyretic drug, 500mg of tab paracetamol was served to the patient.

At 1:00 pm, a usual interaction with the mother revealed that she was anxious due to unknown outcome of the condition. The nursing diagnosis “Anxiety (mother) related to unknown outcome and diagnosis of enteric fever.” was made. I set an objective that patient’s mother will be relieved of anxiety within 48 hours as evidenced by patient’s mother verbalizing that she is no more anxious and nurse observing that mother is calm and participating in patient’s care. The following interventions were put in place; patient’s mother was reassured of competent care and support, patient’s condition and every procedure performed were explained to her, patient’s mother was encouraged to ask questions and was tactfully answered in the language she understood. Mother was also involved in the care planning.

At 2:00 pm, vital signs were checked and documented as:

- Temperature 37.4°C
- Pulse 111b pm
- Respiration 27cpm

Patient's temperature was rechecked at 3:00pm and recorded as 37.1°C. The goal set to reduce temperature at 11:00am was attained as evidenced by the nurse recording a temperature value of 37.1^0C.

Her 6:00pm medications were served and vital signs were checked and recorded. Patient was assisted to perform her personal hygiene and was neatly groomed and made comfortable in bed. I thanked them for their cooperation and patient was put to bed and was handed over to the night nurses when leaving the ward.

4.1.2 Second Day on Admission (18th November, 2021)

On the second day of admission, report from night nurses indicated patient woke up at 5:30am in a stable condition and her personal hygiene such as bathing and mouth care was performed by the mother. Her vital signs had already been checked and recorded at 6:00am as;

- Temperature 37.4°C
- Pulse 113bpm
- Respiration 28cpm

I went to the ward to continue with my nursing care at 7:30am. Her linen was changed and simple bed was prepared for patient. Hausa koko was served as breakfast at 7:00am.

Miss A.A was reviewed at 8:00am and the results for the Widal Agglutination Test was positive indicating the presence of salmonella typhi in the blood. The doctor ordered for the treatment to be continued.

At 8:00am, patient complained of severe headache and a nursing diagnosis of "Headache related to enteric fever process." was made. An objective was set to relief patient of the pain within 8hours as evidenced by patient verbalizing that there is decrease or absence of pain and nurse observing patient experiencing increased level of comfort. The following interventions were carried out: Patient and mother was told the headache is as a result of bacteria and the drugs given will relieve the headache, patient was assessed by using the pain rating scale (0-10) and a quite environment was ensured by restricting visitors and activities carried out without interruption. Patient was engaged in conversation with family members and other patients. Vital signs were checked and recorded and prescribed analgesic was served.

At 8:30am, patient complained of abdominal pain and a nursing diagnosis of "Abdominal pain related to inflammatory process in the small intestine" was made. A goal was set to subside patient's abdominal pain within 24 hours as evidenced by patient verbalizing that she is no longer in pain and nurse observing patient have a cheerful face. Patient's problems were intervened by: Patient's pain was assessed by observing face for grimace and using the Wong Baker Faces Pain scale (0-10), diversional therapy was employed as nurse engaged patient in a conversation, temperature, pulse, respiration and oxygen saturation level was monitored 4hourly, visitors were restricted and activities were carried out without interruption, tab paracetamol 500mg was administered

Patient was served with Banku and okro stew in the afternoon around 12:00pm.

At 4:00pm, the goal set on 18th November, 2021 to relief the patient of headache within 8hours was met as patient verbalized the absence of the pain and nurse observing patient having normal vital signs (pulse and respiration).

At 5:30pm patient was served with rice and kontomire stew per request and I assisted her in taking the food. At 6:00pm, vital signs were monitored and documented as stated in the appendix and her due medications were administered. She then went to bed at 10:10pm.

4.1.3 Third Day on Admission (19th November, 2021)

On this day, patient woke up at 5:30am and was assisted by her mother to perform her personal hygiene. Patient's vital signs had already been checked at 6:00am and recorded. Dr. D.A came and reviewed Miss A.A. at 8:00am. Patient's mother verbalized that she was doing better than the previous days. She was to continue with the medications as ordered. Patient was served oat and bread.

At 8:30am, the objective set on 18th November to subside patient's abdominal pain within 24 hours was attained as patient verbalized that she is no longer in pain and nurse observed patient had a cheerful face.

At 9:00am, a usual interaction with the patient and mother revealed that they had little knowledge about the condition therefore the nursing diagnosis "deficient knowledge related to inadequate information on the causes, signs and symptoms, prevention and complication of enteric fever" was made. A goal was set for the mother to have adequate information on the causes, mode of transmission, pathophysiology, complications, prevention and available management of the condition within 24 hours. The following were the nursing interventions that were carried out; patient's mother was assessed on the level of understanding about the

condition. The definition, causes, signs and symptoms, pathophysiology, complications and preventive measures were explained to the mother. Patient's mother was encouraged to ask questions, questions asked were answered in tactful and simple terms and leaflets on the condition were given to the patient and mother to improve understanding.

At 10:00 am, vital signs were checked and documented as; temperature 37.2°C, pulse 106 bpm, respiration 26cpm. At 12:00 pm, patient was served with rice and cabbage stew.

At 1:00pm, the goal set on 17th November, 2021 to relieve patient and mother of anxiety within 48hours was met as patient's mother verbalized that the anxiety was no more.

At 2:00pm, vital signs were checked and documented in the appendix with due medications administered.

At the 5:00pm, the objective set on 19th November, 2021 to help mother have adequate information on the causes, mode of transmission, pathophysiology, complications, prevention and available management of the enteric fever within 8 hours was achieved as mother responded correctly to questions asked.

At 6:00pm, patient's vital signs were checked and recorded as follows: temperature 37.0^0C, pulse 102bpm and respiration 24cpm. At 10:00 pm due medications were also administered and vital signs were checked and recorded as follows: temperature 36.4^0C, pulse 86bpm and respiration 24cpm documented in the folder.

4.1.3 Fourth Day on Admission (20th November, 2021)

On the fourth day on admission, report from night nurses indicated that Miss A.A woke up at 6:00am. Her vitals were checked and documented as; temperature 36.2°C, pulse 100bpm, and

respiration 25cpm. Treatments were to be maintained and to be continued since patient's condition had massively improved. Patient took in milo drink with milk and bread in the morning.

At 10:00am, patient's vital signs were checked and documented as; temperature 36.6℃, pulse 86bpm and respiration 24cpm. At 11:30 am, patient's mother complained her daughter has not been able to pass stools since admission. A nursing diagnosis of "Constipation related to decreased bowel movement in the intestines" was made. A goal was set to re-establish patient's normal bowel elimination within 24hours as evidenced by patient maintaining passage of soft, formed stool at a frequency perceived as normal by patient mother and patient stating relief from discomfort of constipation. Patient's problems were intervened by reassuring patient and her mother, fluid balance chart was monitored, and patient was encouraged to take high fiber diet and increase fluid intake, patient's mobility and level of physical activity was assessed, prescribed medications (Syrup lactulose 5mls and Ciprofloxacin 220mg) were administered.

At 2:00pm, Vital signs were checked and documented as stated in the appendix. Around 5:30pm, patient was served with Banku and okro stew for supper. At 6:00 pm vitals were checked and documented as; temperature 36.2^0C, pulse 84 bpm and respiration 22cpm. Bed linen was straightened and patient was made comfortable in bed. Patient was handed over to the night nurses for the continuity of care at 8:00pm.

4.1.5 Fifth Day on Admission (21st November, 2021)

On this day patient woke up well looking healthier than the previous day. Detail and reports from the night nurses indicated Miss A.A had a good night sleep without interruptions. Patient's mother

had assisted her to perform her personal hygiene. She took tea with bread as breakfast at 06:50am and she consumed all her breakfast. Daily vital signs were checked and recorded as follows;

1. Temperature: 35.7℃
2. Pulse 81bpm
3. Respiration 25cpm

During ward review, Miss A.A did not present any new health problem, treatment was to be continued. Available and due medications were administered and recorded.

At 11:30am, the goal set on 20th November, 2021 to re-establish patient's normal bowel elimination within 24hours was fully met on evaluation as patient maintained passage of soft, formed stool at a frequency perceived as normal by patient mother and patient stating relief from discomfort of constipation.

At 6:00pm, patient's vital signs were checked and recorded as: temperature 36.3^0C, pulse 72bpm and respiration 24cpm. At 10:00 pm due medications were also administered and vital signs were checked and documented in the folder as temperature 37.5^0C, pulse 98bpm and respiration 27cpm.

4.1.6 Sixth Day on Admission (22nd November, 2021, Day of Discharge)

Patient woke up around 5:30am on the said date, took her bath and brushed her teeth. At 6:00 am, patient's vital signs were checked and recorded as; temperature 36.5^0C Pulse 91bpm, respiration 24cpm. Patient took in "Hausa koko" with "Koose" for breakfast. She looked cheerful, healthy and very excited.

Around 8: 00am, Dr. D.A came for the usual in-patient review. On reviewing Miss, A.A, Dr. D.A, asked patient and mother if they had any complains. Patient made no complains and the

mother confirmed that patient was fine and had not given her any complains. Patient was put on Susp Ciprofloxacin 5mls bd x 7 to be taken home. Patient and mother were informed about the Doctor's decision to discharge them.

I accompanied them to pay for some services which National Health Insurance did not cater for at the account's office. Also, I accompanied Mrs. A.P to the pharmacy to take her medication. Once again, Miss A.A and her mother were reminded about the causes, effect signs and symptoms, prevention of diseases condition as well as the need to maintain good personal and environmental hygiene and was told to report any complications. Mother was educated on how medications will be administered and the need to supervise her daughter to take her medication. Patient and mother was told the day of review (26th November, 2021) and emphasis was made on the need to eat hot food and ensure hand hygiene. IV cannula was removed and I aided them in packing their things. I recorded her discharge in the admission and discharged book as well as daily census. I sought permission to accompany them to board a taxi in front of the hospital, promised to come for home visit and bid them fare well. I came back and removed the dirty linen then carbolized the pillow, mattress, bed frame and finally the locker.

4.2 The Preparation of Patient/Family for Discharge and Rehabilitation

Preparation of Miss A.A and her mother for discharge and rehabilitation commenced on the first day of admission (17th November, 2021). The primary aim was to make patient and family comfortable and understand that the hospital was a temporal place for health care and patient would be discharged home when her condition improves. Emphasis was made on the need to visit the hospital immediately at the early stage of any illness in order to promote early detection and treatment to avoid complications.

4.3 Follow Up/Home Visit/ Continuity Care

Home visit is a visit paid by the nurse to the patient and relatives during and after the admission of a patient. It is a visit that creates a friendly environment for discussions on matters relating to the health of the patient as well as providing health education for the patient and family. This allows the health worker to assess the home environment of the patient in order to provide the necessary nursing care and health related activities. This also reveals the daily practices performed by the patient and family and based on which appropriate teaching is given.

4.3.1 First Home Visit: 19th November, 2021

On Friday, 19th November, 2021 I paid my first home visit to the relative of my patient whiles she was still on admission at Nkwabeng. I got to Nkwabeng at 2pm after attending to my patient at the ward and asking for directions from her mother. The aim of this visit was to help me know the living condition of the patient and how the environment could play a role in the health of Miss A.A. Mrs. A.P gave me her husband's number to call when I get to Anaafo junction, I called Mr. O.O.M when I got there and in less than 7 minutes, he was there to pick me up and their house was just 5minutes walk from the junction, just behind Mankessim information center. On arrival, Mr. O.O.M. offered me a seat, he called the other sibling of Miss A.A to introduce me as the nurse taking care of his sister, we exchanged greetings and they welcomed me to their home.

I introduced myself as a student nurse from Holy Family Nursing and Midwifery Training College, Berekum. I told them I have come to visit them in order to get more information in the management of my patient. Miss A.A and her family lives in a single room in Mr. O.O. M's family house, the floors were cemented and looked neat. Two water containers were found in their corridor covered with lids, the house has a bathroom and a toilet at the back of the house.

Their main source of fuel is dried woods but sometimes depends on charcoal. Their source of water for cooking, drinking and bathing is a standing pipe just beside their house. On observation, it was found that there was electricity in the house. I educated them on the need to always wash their hands after visiting the toilet with soap and water and before eating as well. I also spoke to them about the need to always eat hot served food, restrict buying food from outside and maintain a clean environment and personal hygiene. I also spoke to them about the need to protect food from housefly and dust, clearing bushes and draining stagnant water and proper disposal of refuse. Finally, I educated them on the need to visit the hospital early whenever they are sick to seek for early treatment. After interacting with them I thanked the family for their hospitality and assured, them of my next visit. I bade them goodbye and was escorted outside the house around 3:40 pm.

4.3.2 Second Home Visit (24th, November, 2021)

The second home visit was made on 24th, November, 2021 which was on Wednesday. I arrived at their house around 5:00pm in the evening. I was so excited to see Miss A.A with smiles on her face as she was aggressively eating her “aprapransa”, the entire family was happy at my visit. The aim of the visit was to see how my patient was doing after her discharge and to see if education given during the admission and first home visit were been adhered to. Her condition had greatly improved and she was looking cheerful. I was offered a seat and a glass of water on arrival. I asked her about how she was doing after her discharge and she said she was doing so well and had no complains. I asked her if she was taking her medications as prescribed and I asked to see the medication to confirm if she was actually taking it. I found out that she has been taking her medication and I told her to keep it up and continue to take as prescribed. The home environment was looking neat and I encouraged them to maintain that. The family was also

encouraged to continue the good work of keeping the home environment neat and also ensure hand hygiene. I reminded them of the date for review which was on 24th November, 2021 and its importance. I also asked if they had any concerns to express in the care rendered to Miss A.A at the house. I asked to take my leave and was escorted to the roadside by Miss A.A and her mother around 6: 05 pm.

4.3.3 Review (26th November, 2021)

Miss A.A came to the St Theresa's Hospital on 26th November, 2021 for review accompanied by the mother. I called the mother the day before to remind her of the review and she said she had been preparing to come tomorrow. On arrival, I went to meet the patient and the mother at the gate and led them to the records to collect her folder. Upon my interaction with patient, I observed her condition had greatly improved. Patient's vital signs were checked and recorded as; Temperature 36.20C, Pulse 81bpm, SPO2 99%, Weight 22.3kg.

Patient was escorted to the consulting room of the out –patient department and upon assessment by doctor he confirmed the condition had improved. No medication was given to her and was advised to take care of herself. She thanked me, I escorted them to the gate and bade her goodbye

4.3.4 Third home visit (2nd December, 2021)

On the said date, I went for my third home visit at Nkwabeng which basically was to terminate care with patient and family and also to handover the care of Miss A.A to her parents for the continuity of care. I set off around 9:30am and I arrived at 9:52am. On arrival, I was welcomed by my patient and family and was offered a seat. I was asked the reason for my visit and I informed them that I came to terminate the care I had with them and also to handover to public health nurse. They were sad after I informed them, but I explained to them that this does not

mean that the rapport established would be cancelled because I would still keep in touch with them. Upon my assessment, I realized that Miss A.A was doing very well and was also following the treatment regimen. In order to enhance the continuity of care, the patient was handed over to her father. I also informed my patient and mother to inform me whenever they needed my help. I used this opportunity to thank them for giving me the chance to use them for the patient and family care study. I made them aware that I may not be able to visit them frequently but I will pay them friendly visit and will call from time to time to check up on them. They thanked me for the service I rendered to the patient and family and escorted me to pick a taxi.

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO MISS A.A

5.0 Introduction

This is the final stage /phase of the nursing process. Evaluation of patient care is an ongoing process which entails the continuous assessment of the care and finding out whether the set objectives and interventions carried out have been attained and determines whether the care strategies should be amended or not. It is meant to determine the success of the care study and the effectiveness of the patient care and response to the nursing interventions.

5.1 Statement of Evaluation

During the admission of Miss, A.A, six health problems were identified and objectives were set to solve them. The degree to which the objectives were achieved has been discussed below;

5.1.1 Patient body temperature was reduced to normal (36.2^0C-37.2^0C)

On the day of admission (17^{th} November, 2021), at 11:00am patient had high body temperature (38.7^0C) and an objective was set to reduce temperature to normal (36.2^0C-37.2^0C) within 4hours. The following interventions were done; Patient was reassured that she is the hands of competent nurses. Patient was tepid sponged with lukewarm water, vital signs was checked and recorded one hourly, windows were opened and fans were switch on for fresh air into the room, heavy clothing were taken from patient and light ones were put on to get enough air and prescribed antipyretic drugs like Paracetamol 500mg was served.

At 2:30pm patient's temperature returned to normal (36.2^0C-37.2^0C) as nurse recorded temperature value within (36.2^0C-37.2^0C) and patient's mother verbalizing that her daughter's temperature has reduced.

5.1.2 Patient/Family's Anxiety was Relieved

On the 17th November, 2021 at 1:00pm, patient's mother was anxious concerning the outcome of the condition. The nursing diagnosis "Anxiety (mother) related to unknown outcome and diagnosis of enteric fever." was made. An objective was set to relieve mother of anxiety within 48hours. The following interventions were put in place; patient's mother was reassured of competent care and support, patient's condition and every procedure performed were explained to her, patient's mother was encouraged to ask questions and was tactfully answered in the language she understood. Mother was also involved in the care planning.

On 19th November, 2021 at 1:00pm, the objective was achieved and goal fully met as patient's mother verbalized that she is no longer anxious and nurse observed that mother was calm and participated in patient's care.

5.1.3 Miss A. A's Headache was Relieved

On 18thNovember, 2021, at 8:00am a nursing diagnosis of "Headache related to enteric fever process." was made. An objective was set to relief patient of the pain within 8hours as evidenced by patient verbalizing that there is decrease or absence of pain and nurse observing patient experiencing increased level of comfort. The following interventions were carried out: Patient and mother was told the headache is as a result of bacteria and the drugs given will relieve the headache, patient was assessed by using the pain rating scale (0-10) and a quite environment was ensured by restricting visitors and activities carried out without interruption. Patient was engaged

in conversation with family members and other patients. Vital signs were checked and recorded and prescribed analgesic was served.

Goal was fully met was met as patient verbalized the absence of the pain and nurse observing patient having normal vital signs (pulse and respiration) on 18th November, 2021

5.1.4 Miss A. A's Abdominal Pain Subsided

On 18th November, 2021, at 8:30am, a nursing diagnosis of "Abdominal pain related to inflammatory process in the small intestine" was made. A goal was set to subside patient's within 24hours. The nursing interventions that were put in place include, Patient's pain was assessed by observing face for grimace and using the Wong Baker Faces Pain scale (0-10), diversional therapy was employed as nurse engaged patient in a conversation, temperature, pulse, respiration and oxygen saturation level was monitored 4hourly, visitors were restricted and activities were carried out without interruption, tab paracetamol 500mg was administered.

On 19th November, 2021 at 8:30am, goal was met as patient verbalized that she is no longer in pain and nurse observed patient had a cheerful face.

5.1.5 Patient's mother had inadequate knowledge (information) about the disease condition

On 19th November, 2021 at 9:00am, an interaction with the patient and relative revealed that my patient and her mother had less knowledge about the predisposing factors, clinical manifestation on possible complication of the disease condition. A goal was set for the mother to have adequate information on the causes, mode of transmission, pathophysiology, complications, prevention and available management of the condition within 24 hours. The following were the nursing interventions that were carried out; patient's mother was assessed on the level of

understanding about the condition. The definition, causes, signs and symptoms, pathophysiology, complications and preventive measures were explained to the mother. Patient's mother was encouraged to ask questions, questions asked were answered in tactful and simple terms and leaflets on the condition were given to the patient and mother to improve understanding.

On 20th November, 2021 at 9:00am, goal was met as mother responded to questions asked correctly and nurse observed mother answer questions correctly.

5.1.6 Patient's Normal Bowel Movement was Re-established.

On 20th November, 2021, at 11:30am, a nursing diagnosis of "Constipation related to decreased bowel movement in the intestines" was made. A goal was set to re-establish patient's normal bowel elimination within 24hours as evidenced by patient maintaining passage of soft, formed stool at a frequency perceived as normal by patient mother and patient stating relief from discomfort of constipation. Patient's problems were intervened by reassuring patient and her mother, fluid balance chart was monitored, and patient was encouraged to take high fiber diet and increase fluid intake, patient's mobility and level of physical activity was assessed, prescribed medications (Syrup lactulose 5mls and Ciprofloxacin 220mg) were administered.

On 21st November, 2021 at 11:30am, goal was met as evidenced by patient maintaining passage of soft, formed stool at a frequency perceived as normal by patient mother and patient stating relief from discomfort of constipation.

5.2 Amendment of the nursing care plan

Through comprehensive and holistic nursing care given to Miss A.A and family all objectives set to help overcome their health, problems were activated within the stipulated time. Thus, no amendment of the care plan was made.

5.3 Termination of care

On 2nd December, 2021, I made my last home visit to Miss A.A and her family. The main objectives were to assess her condition and to terminate my care. I encouraged them to continue to practice and adhere to the education given. I told the family that the care had finally come to an end since Miss A.A had fully recovered but should continue to take good care of her. Also, the importance of personal and environmental hygiene was stressed. Education was also given on the need for checkups and review. I finally thanked them for their corporation and sought their permission to leave. I was escorted by the roadside and took and taxi back to Nkoranza.

CHAPTER SIX

SUMMARY AND CONCLUSION

6.1 Introduction

This is the last chapter for patient/family care study and it entails the summation and conclusion of all care to patient/family throughout the period of hospitalization.

6.2 Summary

On the 17th of November, 2021, an eight-year-old girl named Miss A. A was admitted to paediatric ward of St. Theresa's Hospital Nkoranza at 10:50am with the diagnosis of enteric fever. She spent six days in the hospital. She presented with vomiting, diarrhea, headache and high body temperature. Six health problems were identified and appropriate nursing intervention was put in place to curtail the problems. Diagnostic investigations such as; Malaria parasite estimation, Full blood count and Widal test were carried out in order to determine the actual cause of the problem. Patient and mother were educated on the disease condition (Enteric fever) and they were able to provide basic answers concerning the condition.

They were prepared towards discharge from the first day of admission (17th November, 2021).

Three home visits were made to the patient and family to know the situation environment and identify the problems, which could be the cause of the disease.

Patient recovered within six days without any complication and was scheduled for review on 29th November, 2021. Patient was relieved of her symptoms; education on the importance of review was given. Visiting was made to her house while she was on admission and also after discharge.

Her environment was observed during the home visit and the necessary health education was given based on the findings. Care was terminated on 2nd November, 2021.

6.3 Conclusion

Miss A.A and her family care study have really given me a deeper knowledge about holistic nursing care to a patient and family. The patient and family care study has helped me to know and understand comprehensive nursing care that has to be given to a patient and what efficient nursing care can do for a hospitalized patient. This study has given enteric fever adequate knowledge on the nursing process through supervision. Although writing patient and family care study is a very difficult task, I encourage each and every student nurse to write one as it is enriching in knowledge and practice. It should therefore be maintained by the Nursing and Midwifery Council of Ghana to help render individualize nursing care to patients and family.

APPENDIX

TABLE 7: VITAL SIGNS OF MISS A.A

Date	Time	Temperature (^{0}C)	Pulse (bpm)	Respiration (cpm)
17/11/21	10:00am	38.8^{0}C	128bpm	23cpm
	2:00pm	37.4^{0}C	111bpm	27cpm
	6:00pm	36.8^{0}C	118bpm	26cpm
	10:00pm	37.3^{0}C	129bpm	22cpm
18/11/21	6:00am	37.4^{0}C	113bpm	28cpm
	10:00am	36.9^{0}C	80bpm	26cpm
	2:00pm	36.2^{0}C	137bpm	32cpm
	6:00pm	36.9^{0}C	101bpm	34cpm
	10:00pm	37.0^{0}C	93bpm	25cpm
19/11/21	6:00am	37.7^{0}C	107bpm	24cpm
	10:00am	37.2^{0}C	106bpm	26cpm
	2:00pm	36.8^{0}C	90bpm	25cpm
	6:00pm	37.0^{0}C	102bpm	24cpm
	10:00pm	36.4^{0}C	86bpm	24cpm

Date	**Time**	**Temperature (^{0}C)**	**Pulse (bpm)**	**Respiration (cpm)**
20/11/21	6:00am	36.2^{0}C	100bpm	25cpm
	10:00am	36.6^{0}C	86bpm	24cpm
	2:00pm	36.5^{0}C	90bpm	25cpm
	6:00pm	36.2^{0}C	84bpm	22cpm
	10:00pm	36.0^{0}C	86bpm	23cpm
21/11/21	6:00am	35.7^{0}C	81bpm	25cpm
	10:00am	36.0^{0}C	94bpm	24cpm
	2:00pm	36.3^{0}C	92bpm	23cpm
	6:00pm	36.3^{0}C	72bpm	24cpm
	10:00pm	37.5^{0}C	98bpm	27cpm
22/11/21	6:00am	36.5^{0}C	91bpm	24cpm

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SIGNATORIES

1. **The Student Nurse**

Name: Asante Richard

Signature: .....

Date: 5th October, 2022.

2. **Nurse In-Charge of Female Medical Ward, ST Theresa's Hospital, Nkoranza.**

Name: Miss Esther Serwah Hiveko

Signature: .....

Date: 7/10/2022

3. **The Supervisor, Holy Family Nursing and Midwifery Training College, Berekum**

Name: Mr. Osafo Asare Samuel

Signature: .....

Date: 07-10-2022

4. **The Principal, Holy Family Nursing and Midwifery Training College, Berekum**

Name: Monica Nkrumah

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