HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

A PATIENT/FAMILY CARE STUDY ON ACUTE GASTROENTERITIS

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A PATIENT/FAMILY CARE STUDY SUBMITTED TO THE NURSING AND MIDWIFERY COUNCIL OF GHANA IN PARTIALFULFILLMENT TOWARDS THE AWARD OF A LICENSE TO PRACTICE AS A REGISTERED GENERAL NURSE

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PREFACE

Nursing was “untaught” and instinctive. It was performed out of compassion for others, out of the wish to help others. Nursing was a function that belonged to women. It was viewed as a natural nurturing job for women.

Nursing emerged as a profession in the mid-19th century. Historian’s credit Florence Nightingale, a well-educated woman from Britain, as the founder of modern nursing. Nightingale challenged social norms – and her wealthy parents – by becoming a nurse.

At the time, the public objected to the idea of women nursing strangers. But Nightingale saw nursing as an extraordinary opportunity for females. She believed they could use their education and scientific knowledge to improve patient care while gaining personal independence.

In 1854, during the Crimean War, the British government requested Nightingale’s aid at a military hospital in Turkey. Within weeks of her small team arriving, the mortality rate of British soldiers fell dramatically. Nightingale’s accomplishments impressed the public and ultimately helped convince the Western world of the dignity and value of educated nurses.

One prominent change in the evolution of the nursing profession is formalized education. The first training programs opened at hospitals in the late-19th century. Student nurses received clinical instruction in exchange for providing care to patients. During this period of training, nurses helped hospitals make tremendous improvements in safety and quality, and humanized medical care.

By the second half of the 20th century, patient needs became more complex and hospitals required skilled nurses to manage them. The hospital-based education model thus declined in favor of training programs at colleges and universities.

The patient/family care study is a report of nursing care rendered to a patient and family by a final year student nurse in which a patient is selected from the ward, nursed from the day of admission till discharge and possible follow – up visits are made to maintain optimum level of health of the patient.

The patient/family care study forms part of the assessment of every final year student. It is a prerequisite for every candidate in order to partially fulfill the award of license in Registered General Nursing by the Nursing and Midwifery Council of Ghana. It affords the student the opportunity to develop his/her skills for future use.

The patient and family care study enables the student nurse to do more research, interact and co–ordinate with other members of the health team for the promotion of comprehensive and quality health care to individuals and the community as a whole.

The study also provides opportunity for the student nurse to use scientific methodology and holistic approach to nursing care. It helps the student nurse transform his/her theoretical knowledge acquired into practice so that the necessary skills and knowledge could be obtained for professional work.

The care study builds up confidence in the student nurse and helps him/her to take up full responsibilities in caring for a patient and his/her family.

Finally, it gives the student nurse some level of competence in rendering accurate nursing care using the nursing process approach.

This care study was done to acquire more knowledge about gastroenteritis and its outcome on patient and family. Due to patient and relative confidentiality and anonymity, patient and relatives names will be replaced by abbreviations. Therefore, patient in this study would be referred as Miss E.A.A, the mother and the father as Mrs F.M and Opanyin A.K respectively.

ACKNOWLEDGEMENT

I would first of all give a big thanks to the almighty God for guiding, protecting and seeing me through this three year of training and for giving me more knowledge, wisdom and understanding to end my care study successfully.

I also extend my deepest gratitude to Miss. E.A.A and her family for their acceptance and cooperation that helped me to complete this work successfully.

I also wish to thank my great supervisor Mr. Appiah Joseph and Mr. Ramson who devoted their precious and valuable time to assist, guide me, edited and suggested many advancement and contributions to make the content and structures of my work a standard and unique one.

Again, I extend my gratitude to the entire tutorial staffs of the nursing departments in Holy Family Nursing and Midwifery Training College, Berekum for their contributions in the writing of my care study. Also, my acknowledgments goes to all the Authors of the various textbooks used for my work.

I will be very ungrateful if I do not acknowledge the entire staffs of the Females Medical Ward of Sunyani Municipal Hospital, not forgetting the preceptor and the ward in-charge who spent their precious time in guiding and assisting me in making my work a success.

I also extend my sincere gratitude and appreciation to my lovely parents Mr. and Mrs. Adjei and the Ankomah family for their genuine support throughout my three year training period. To them, I say, may the Almighty God bless them and may He let them never lack.

Lastly, my thanks go to all my precious mates (Diploma 23) and lovely friends who also contributed in one way or the other to make this work a success, to these precious one, I say, may the good Lord bless them.

INTRODUCTION

The motive backing care study is to assist the patient to regain his or her health or to nurse him/her to a peaceful death in order to present a unique report of that assistance putting into considerations the identified problems interventions and solutions that were carried out using the nursing process prospectively.

Below is a care study report of the nursing care rendered to Miss E.A.A, a 35year old woman who was diagnosed of gastroenteritis. She was admitted to the Female Medical Ward in Sunyani Municipal Hospital and was nursed for five (5) days. For the sake of patient anonymity and confidentiality, patient will be referred to as Miss E.A.A. In this report.

According to Dorothy Johnson (1980), nursing refers “an external regulatory force which acts to preserve the organization and integration of the patient's behaviours at an optimum level under those conditions in which the behaviour constitutes a threat to the physical or social health or in which illness is found.

Patient was nursed using a holistic approach from the day she was admitted to the ward (11th November, 2022) till the day she was discharged (15th November, 2022) and the holistic care helped in meeting the psychological, emotional, physical and spiritual needs of the client. Patient's problems were identified through both objectiveness (observation) and subjectiveness (interactions with client) which were used in the nursing process.

In order to meet the most pressing needs of the patient and to render an effective nursing care, the identified health problems were addressed in order of importance and were used to draw a care plan which were implemented from the day of admission to the day of discharge and prior to the discharge, patient and family were educated on the disease condition, how the disease comes about and ways of preventing the disease.

The study has been arranged and written in six (6) chapters using the nursing process guidelines (steps)

Chapter one(1) deals with patient and family assessments which comprises of patient's particulars, family history, patient's developmental history, admission of patient, patient's concept about her illness, literature review on the condition and lastly, validation of data.

Chapter two (2) also consist of data analysis, which deal with comparing the data collected from the patient and the family to that of standards. This chapter also talks about patient's strength, patient's health problem and finally the nursing diagnosis.

Chapter three (3) also comprises of planning of care for patient and family.

Chapter four (4) also deals with implementation of the nursing care plan, preparation of patient prior to discharge, follow-up visits.

Chapter five (5); this is where all the services rendered to the patient and family are being evaluated with the aim to see as whether or not the goals set and the care rendered were able to achieve their intended purposes.

Chapter six (6); this chapter deals with summary of care rendered to Miss E.A.A and her family, conclusion, recommendations and appendix.

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CHAPTER ONE

ASSESSMENT OF PATIENT AND FAMILY

1.0 Introduction

Assessment is the systematic collection of data about patient's and family's learning needs and readiness to learn (Hinkle & Cheever, 2018). Assessment is the first phase and an essential tool in the nursing process. It deals with gathering of data from the patient/family through observation, direct interviews of the patient, family and health workers who rendered care to the patient, from medical records, laboratory investigations, physical examinations and review of literature. The assessment covers the patient's particulars, family medical/surgical history, family socio-economic history, patient's developmental history, patient's lifestyle and hobbies, patient's past medical/surgical history, the present medical/surgical history of the patient, admission process of the patient and family, patient/family's concept of his/her illness, literature review on the condition and validation of data. This information gathered from patient will help identify patient/family's problems and the appropriate and recommended nursing interventions rendered to patient.

In assessment, the data can be calculated from the patient in two forms, that is; objective means where the data were obtained by observing and inspecting Miss E.A.A form head to toes for any abnormalities and also conduction of laboratory investigations on her condition.

Also, secondary means were used to obtain more information about the patient through reviewing into the Nurse's notes, report book and other related literature for further information. Subjective means of data collection was also used to obtain data from the patient using direct interview.

1.1 Patient's Particulars

Patient particulars refers to information about a patient's history and behavioural patterns, gathered by a therapist or medical professional primarily from the patient but sometimes from others who know or are related to him or her (American Psychological Association, 2020)

Miss E.A.A is a 35year old woman born to Opanyin A.K who is a farmer and Mrs. S.A who was also a farmer. She was born on 16th April, 1988 at Sunyani Municipal Hospital through spontaneous virginal delivery in cephalic presentation. She is the first born of her parents and have additional two siblings. She is 1.5m tall and weighs 60kg with BMI of 27.

She has big eyes and is dark in complexion. Patient has no disabilities or physical impairment. She lives in her own house around Doctor Berko in the Brong Ahafo Region of Ghana (Sunyani). She fellowship with "Fall of Grace Ministry" which is located in Sunyani just behind the University of Energy and Natural Resources with electronic folder number as BR-A01-AAE2161. She speaks English, Bono and twi. She started Kindergarten at the age 5years at Ridge Experimental School and continued schooling till she completed Senior High School at Sunyani Secondary School where she could not further her education again because of economic hardship.

According to patient, she said she is not yet married but in a healthy relationship with Mr. M.A has three (3) children with him to which she delivered them per vagina in a cephalic presentation without any complication. She is a bread seller. Miss E.A.A said her first born, P.A who is a female is her next of kin.

1.2 Family's Medical/ Surgical History

Health history is a series of questions used to provide an overview of the patient's current health status.

Attention is focused on the impact of psychosocial, ethnic, and cultural background on a person's health. Information is obtained on both paternal and maternal sides of family (Hinkle & Cheever, 2018)

According to Miss E.A.A, there is a history of diabetes mellitus in both the paternal and maternal sides of the family. Her father Opanyin A.K is having diabetes mellitus and aside this, there are no other hereditary diseases like asthma, hypertension, haemophilia among others in the family. She also said there is no history of mental illness in the family. She also said her grandparents are deceased of which she does not know the cause of their death.

Miss E.A.A said they do experience mild symptoms like headache, general body pains and rhinitis of which they use over the counter drugs and traditional medicines to treat and if symptoms still persist, then they consult a physician. Based on this information, I educated patient and family about the effects of the use of over the counter drugs and traditional medicines and urged them to seek medical care from any health center when they are suffering from any condition. Patient said this is the second time she is being hospitalized. The first instance was as a result of malaria which was managed with antimalarial medications. The sources of medical treatment for Miss E.A.A's family are both orthodox and herbal medicine. She said none of her family member have undergone surgery and they are also not allergic to any drug or food.

1.3 Family Socio-Economic history

Socio economic history refers to the position of an individual or group on the socioeconomic scale, which is determined by a combination of social and economic factors such as income, amount and kind of education, type and prestige of occupation, place of residence, and in some

societies or parts of society-ethnic origin or religious background (American Psychological Association, 2020)

She said she is not allergic to any food or drug neither do her children. Miss E.A.A said she does not have any difficulties accessing health care whenever she is not feeling well because she is an Ayo Recharge with Care as well as National Health Insurance Scheme (NHIS) Beneficiary.

Miss E.A.A said ever since her biological mother died, she has been working harder to get money from her work to care for her children and herself and also, gets some financial support from her father and the man she is in a relationship with and is of average financial status since she can cater for her family daily three square meals and other expenses of the family.

She said her family have been herself and her three children but they do visit their extended family when needed and from conversation with her it was reviewed that, there is a strong cohesion among the family members and the community they live. She also said, not getting enough time to rest and eat because of her mush time spent at her selling place subject her to getting general body weakness.

Miss E.A.A also said she do attend Church (Full of Grace Ministry) every Sunday and hold no position in the church. She also said there is no taboo in her family but they rather conform to rules regarding their Christian religion.

1.4 Patient's Developmental history

Development refers to the process of growth and differentiation which involves cognitive, psychosexual and psychosocial processes (Weller, 2016).

Maturation is the process of developing (Weller, 2016).

Growth is the progressive development of a living thing, especially the process by which the body reaches its complete physical development (Weller, 2016)

According to Miss. E.A.A, she said she was born through spontaneous vaginal delivery at term on 16th of April, 1988 at Municipal Hospital, Sunyani. She said she did not have any congenital anomalies like cleft palate, clubbed foot nor cleft lips and was breastfed exclusively for six (6) months.

She said she was vaccinated with the vaccine preventable disease and this was confirmed by Bacilli Calmet Guerin scar on her right deltoid muscle. Miss E.A.A said she started to sit at 3 months and crawled when she was 7 months of age and begun walking when she was one year and she said she do not remember when her first teeth showed up. She also said she begun kindergarten at Ridge Experimental school, Sunyani at age 5 through till she completed her senior high school at Sunyani Senior High School. She also said, she was very good at learning English and Core Mathematics but found it very difficult in other subject and could not further her education to the tertiary due to financial constraints.

Puberty is the period during which secondary sexual characteristics develop and the reproductive organs become functional (Weller, 2016). According to Miss. E.A.A, her secondary sexual characteristics such as breast development, hip broadening begun when she was ten years and had her first menstruation (menarche) when she was at age 16 and is not yet married but have three children and still having a normal monthly menstrual flow.

In Eric Erickson's psycho-social development, he divided the personality development into eight (8) stages over lifespan within which each stage comes with its own implications which can either make the individual's personality in the period of growth either healthy or unhealthy.

Based on Erickson's eight (8) psycho-social development, Miss E.A.A falls within the sixth stage which talks about intimacy versus isolation. This stage demand that, the individual should have

relationship with others, success at this stage leads to relationship fulfilment and struggling at this stage leads to isolation and loneliness.

Based on Miss. E.A.A, she said even though she is not yet married, but she is not isolated and lonely because she is in a serious relationship with someone who makes her happy always and she's praying that the good Lord helps them to get married successfully.

1.5 Patient's Obstetric History.

Life style is defined as the typical way of life of an individual, group, or culture (Merriam-Wester, 2020)

Based on the above, Miss. E.A.A said she has a normal menstrual flow for five days without any complication such as amenorrhea and dysmenorrhea. She also has three children of which they were all carried in her uterus for the complete nine months without any miscarriages nor complications and were all delivered per vagina at term. She also said she does not use any contraceptives as a means of preventing pregnancy but rather uses natural calendar method.

1.6 Patient's Lifestyle/Hobbies

Life style is defined as the typical way of life of an individual, group, or culture (Merriam-Wester, 2020).

Miss. E.A.A said she wakes up around 5:30 am and do regular family dawn devotion for 30 minutes since she is a Christian who have faith in her belief, after that, she brushes her teeth with Colgate toothpaste and toothbrush, empty her bowl and take her bath. After that, she prepare her children for school and set to her usual work place where she sells her bread from Monday to Friday using a car or sometimes a tricycle. She also said she takes her bath, sit by the television to watch movies but due to tiredness, she mostly sleep off along the line. On Saturdays, she

attends societal gatherings such as; outdooring, weddings, funerals, wash her clothes and that of her family and said she does not belongs to any political party.

Miss. E.A.A said she goes to church on every Sunday to fellowship with her church (Full of Grace Ministry) and prepare herself and the children for the following week. She also said she can easily initiate and maintain her sleep without any difficulties and said she also sing more of Christian inspirational songs and meditations whenever she is stressed out from thinking about how to make sure she cater for her children for their future betterment and likes singing and dancing . She also said she likes dried fish and snail, palm-nut soup with fufu.

From my own observation, even-though she is an introvert type, she is very good in communicating and she is very patient too. She said because of the nature of her work, she mostly spends most of her time at where she sells and so do take her lunch and sometimes supper at her selling place.

1.7 Patient's Past Medical/Surgical History

Patient past medical history is a detailed summary of the patient's past health that is an important part of the health history (Hinkle & Cheever, 2018).

Miss E.A.A said she has been detained at Sunyani Municipal Hospital before on account of malaria and was managed with antimalarial drug without any complication. She said she had not had surgery before and there are no disabilities caused by illness or accident. She also said because she was immunized against the infantile killer disease, she did not encounter any childhood illness like whopping cough, poliomyelitis, measles among others but mostly use over the counter drugs when she experiences mild symptoms like mild body weakness, headache among others because she is afraid of syringe and only result to the hospital if the symptoms still persist. I then educate her on the need to avoid the use of over the use of over the counter drugs and immediately seek health care whenever she or any of her family members are not feeling

well. Miss E.A.A also said she was able to settle her hospital bills because of the financial support from her relatives and National Health Insurance Scheme and attends medical check-ups at municipal hospital, Sunyani.

1.8 Patient's Present Medical/Surgical History

Present medical history is the single most important factor in helping the health care team arrive at a diagnosis or determine the patient's current needs (Hinkle & Cheever, 2018).

Miss E.A.A said she begun having an unusual feeling in her body on 10th November, 2022 when she woke up in the morning but did not give much attention to it. She said symptoms aggravated on the 11th of November, 2022 when she started experiencing feeling in her body where she was then rushed to the accident and emergency unit at municipal hospital, Sunyani. She was triaged and was admitted through Accident and emergency unit at 10:00am and was seen by Dr. A. A. I.

The following laboratory investigations were carried out on her, B.F for malaria parasite, FBC test, Helicobacter pylori test, pregnancy test, urine R/E and abdominopelvic ultrasonography. Dr. A. A. I diagnosed her of acute gastroenteritis. After several hours, she was then transferred to the female medical ward for admission and further management.

1.9 Admission of Patient

Admission is the initiation of care, usually referring to inpatient care, either lasting for a day or more (Merriam-Wester, 2020).

Miss E.A.A was brought into the female medical ward in Sunyani Municipal Hospital for the accident and emergency unit on 11th November, 2022 at 7:00pm in a wheel chair but conscious and alert and accompanied by her relative and a staff nurse with a planned admission and with diagnosis of acute gastroenteritis. They were welcomed and the staff nurse and the relative were

offered a seat at the Nurses station. Her details were received from the transfer section on the ward computer, confirmation were made by mentioning of patient's name and was able to respond to her name. An admission bed free from cramps and creases was prepared to make patient comfortable. Patient and relatives were oriented to the ward and it annexes, they were also introduced to staffs on duty and patients in the war. They were informed about the time for ward rounds and visitation hours, were reassured of competent nursing care and was made comfortable in bed. Procedure was explained to her and her relatives and her baseline vital signs were checked and recorded as:

Temperature 38.2 degree Celsius

Pulse 92 beats per minutes

Blood pressure 130/92 mmHg

Respiration 19 cycle per minute

Oxygen saturation 97 percent

Patient’s weight on admission was 60Kg.

Miss E.A.A was to be managed with the following medications;

1. Intravenous Ringers Lactate 1.0L over 24hours
2. Intravenous Normal Saline 1.0L over 24hours
3. Intravenous Ciprofloxacin 400mg bid for 24hours
4. Intravenous Metronidazole 500mg tid for 24hours
5. Intravenous Paracetamol lg tid for 24hours

Below are the laboratory investigations that were done at the accident and emergency unit:

1. Full Blood Count
2. H- Pylori test
3. Malaria Parasite Test
4. Abdominopelvic ultrasonography
5. Pregnancy test

Patient and relatives were informed that the National Health Insurance Scheme covers some medicines but others may not be covered and so they will be prescribed for them to buy them from the pharmacy shop (Green Light) or they can be asked to pay for such drugs. She was admitted into the admission section on the ward computer.

I reintroduced myself to patient as a final year student nurse of the Nursing and Midwifery Training College, Berekum, who would like to take her and her family for my care study. Miss. E. A.A and her relatives were informed that the care study is a requirement by the Nursing and Midwifery Council of Ghana in partial fulfilment towards the award of license to practice as a Registered General Nurse. I explained to the patient and her relatives about the concept of the patient/family care study and assured them of privacy and confidentiality.

It was added that a report will be written after the entire event. Miss. E. A.A. and her relatives agreed to my request and promised to offer me the necessary information and assistance. I then expressed my gratitude to them. Discharge planning was initiated with the relatives; thus, they will continue the care at home once she is well. I decided to choose this patient for the study because I wanted to know more about gastroenteritis as the incidence of this condition is more prevalent in this locality and identify empirical ways of preventing it.

On admission, patient's temperature recorded indicated that, she was having fever (38.2^{o}C) and the following nursing care were rendered to reduce her body temperature; patient and relatives were reassured that, her body temperature will be within the normal range, she was tepid sponged to cool her temperature down, windows near her were all opened to ensure adequate ventilation, her body temperature (axilla) was rechecked and recorded as 36.4^{0}C and tablet paracetamol 1g served to reduce the body's temperature.

Patient and relatives were anxious and the following nursing care were rendered to patient; they were reassured of competent nursing care to allay their fears and anxiety, their level of anxiety was assessed using their facial expressions and co-operations, all procedures were explained to patient and relatives to allay their fears and anxiety, they were encouraged to ask any question to free up their minds, patient was also introduced to other patients in the ward who are recovering from gastroenteritis and were also well oriented to the ward and it annexes to reduce their anxious level.

Patient also complained of abdominal pains and the following care were offered to patient and relatives; they were reassured of competent nursing, patient's level of pain was assessed using the pain rating scale (score 0), ward television was switched on to divert her mind from the pain, patient was encouraged to describe the nature of the pain, she was allowed to assume a comfortable position to alleviate the pain and intravenous metronidazole 500mg and intravenous ciprofloxacin 400mg served. All these interventions were carried out in order to relieve patient from the symptoms.

1.10 Patient's Concept of Illness

Miss E.A.A said she believes her illness is not as a result of any super natural forces but thinks as a result of mostly eating from outside in the afternoon and evening during her periods of selling and said because of her faith in God, she believes that the good Lord will heal her and

also expressed a great hope that her condition will get better with the competent Nursing care and the treatment regimen.

1.11 Literature Review on Gastroenteritis

Basic Anatomy of the Stomach and the Intestines

The stomach is situated in the left upper portion of the abdomen under the left lobe of the liver and the diaphragm, overlaying most of the pancreas. A hollow muscular organ with a capacity of approximately 1500 mL, the stomach stores food during eating, secretes digestive fluids, and propels the partially digested food, or chyme, into the small intestine. The gastroesophageal junction is the inlet to the stomach. The stomach has four anatomic regions: the cardia (entrance), fundus, body, and pylorus (outlet). Circular smooth muscle in the wall of the pylorus forms the pyloric sphincter and controls the opening between the stomach and the small intestine. The stomach is lined with columnar epithelial tissues. The small intestine is the longest segment of the GI tract, accounting for about two thirds of the total length. It folds back and forth on itself, providing approximately 7000 cm (70 m) of surface area for secretion and absorption, the process by which nutrients enter the bloodstream through the intestinal walls. It has three sections: The most proximal section is the duodenum, the middle section is the jejunum, and the distal section is the ileum. The ileum terminates at the ileocecal valve. This valve, or sphincter, controls the flow of digested material from the ileum into the cecal portion of the large intestine and prevents reflux of bacteria into the small intestine. Attached to the cecum is the vermiform appendix, an appendage that has little or no physiologic function. Emptying into the duodenum at the ampulla of Vater is the common bile duct, which allows for the passage of both bile and pancreatic secretions. The large intestine consists of an ascending segment on the right side of the abdomen, a transverse segment that extends from right to left in the upper abdomen, and a descending

segment on the left side of the abdomen. The sigmoid colon, the rectum, and the anus complete the terminal portion of the large intestine. A network of striated muscle that forms both the internal and the external anal sphincters regulates the anal outlet (Hinkle & Cheever, 2018)

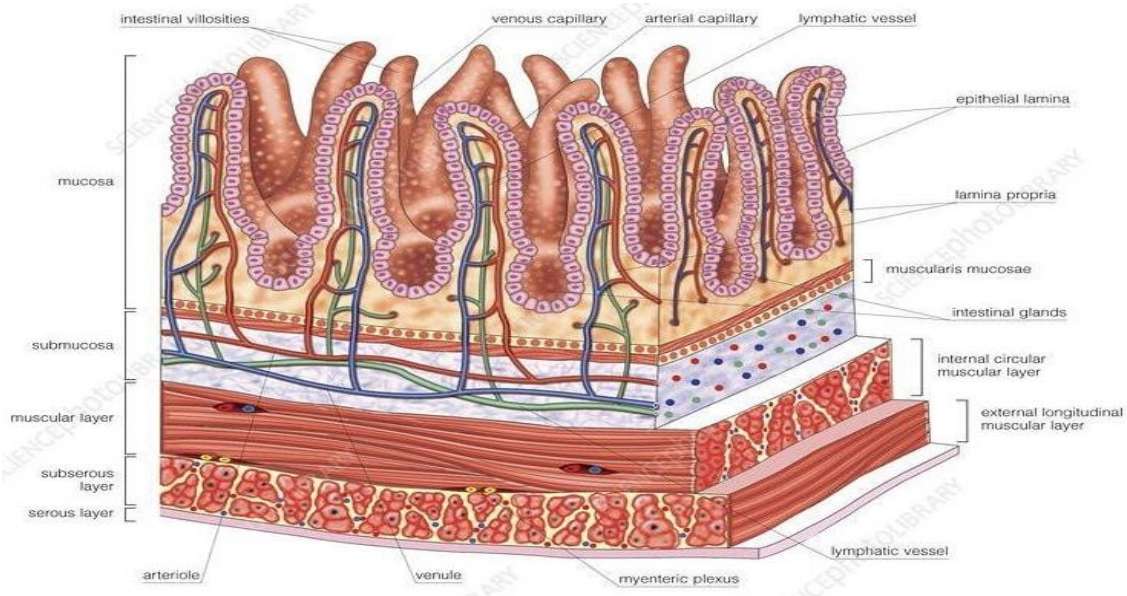

Figure 1. 1: Microscopic Structure Of The Intestine

Layers of The Stomach

The stomach has four (4) layers and they are (Hinkle & Cheever, 2018);

1. **The inner mucosa** (mucous membrane); This is the inner lining of the stomach made of epithelial cells (simple columnar) which is thrown into folds called rugae. These rugae expands to help increase the total surface area of the stomach. These epithelial cells dip downwards to form pits where these gastric glands secrete their content (gastric juice) into.

2. **Submucosa;** This is the next layer that covers the mucosa and is made up of connective tissues such as blood and lymph vessels as well as network of nerves and fibres.

3. **Muscularis externa**; It is the next layer that covers the submucosa and muscle fibres.

4. **Serosa.** It is a fibrous membrane that covers the outside of the stomach and it is called visceral peritoneum.

Structure That Connects the Mouth to The Stomach

Oesophagus: It is a tube-like organ that connects the mouth and throat to the stomach at a junction called the gastroesophageal junction which forms a physiological sphincter that control and prevent back flow of food from the stomach to the oesophagus.

Definition of Gastroenteritis

Gastroenteritis is a medical condition from inflammation ("-itis") of the gastrointestinal tract that involves both the stomach ("gastro" -) and the small intestine ("entero" -). Gastroenteritis is inflammation of the mucosal lining of the stomach and intestines characterized by abdominal cramping, vomiting, nausea and diarrhoea (Hinkle & Cheever, 2018).It is also referred to as stomach or intestinal flu or traveller's diarrhoea or intestinal flu.

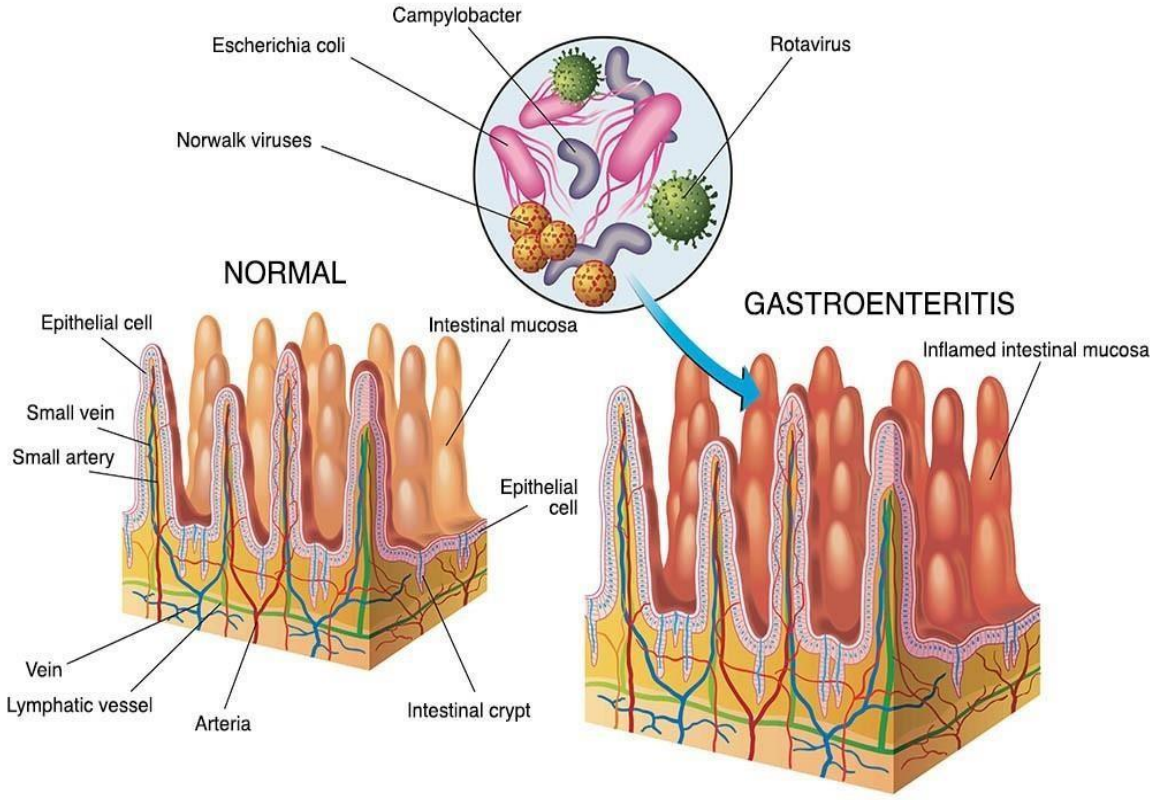

Figure 1. 2: Microscopic Structure Of An Inflamed Intestine

Causes of Gastroenteritis

As specified by (Walker & Whittlesea, 2015) Gastroenteritis has many causes which include the following;

1. Bacteria such as; *Escherichia coli*, staphylococcus aureus, salmonella, shigella, and clostridium perfringes.
2. Parasites such as; Ascaris, enterobius and trichivellaspiralis
3. Viruses such as; Echo viruses, adenoviruses, norovirus, and rotavirus.
4. Amoeba like Entamoebahistolytica
5. Reaction to some drugs like antibiotics.
6. Enzymes deficiencies

7. Food allergies.

Pathophysiology Gastroenteritis

Bacteria in the gastrointestinal tract use the following mechanism to bring about the disease condition (Ethelwayann, 2019). They are;

I. Enterotoxin production; the organism gain entry into the GIT, multiply and release toxins that bind to the mucosa and cause a profuse secretion of water and electrolytes. Example; shigella and Vibrio cholerae.

II. Invasion of epithelial cells: The bacteria invade and destroy the cells of the intestinal epithelium. This therefore, leads to bloody mucoid stools. Example E- coli.

III. Penetration and systemic invasion: There are local inflammation in which the organisms try to penetrate the mucosa and gain access to the systemic circulation.

This inflammatory process goes a long way to bring about stimulation and secretion of intestinal fluids. Because the mucosa lining of the GIT is inflamed, food cannot be retained and there is no alternative than to be vomited or passed out as watery stool. As a result of the excessive loss of water through vomiting and stool, dehydration becomes the order for the day and also the individual becomes very weak due to the inability to retain food. There is also scanty and concentrated urine because most of the fluid is passed out as stools and vomitus.

Also, inflammation reaction and the presence of toxin also stimulate a sympathetic nerve which stimulates salivation, nausea and vomiting. It further increases intestinal activities leading to diarrhoea and abdominal pain.

Persistent diarrhoea and vomiting subsequently lead to depletion of body fluid and electrolyte especially bicarbonate reserves. It predisposes to acidosis, fluid volume deficit and circulatory

collapse. This further leads to fluid shift from intracellular compartment to extracellular compartment resulting in to systemic disturbances in cellular functions and changes in their shape which manifest as sunken eyes and dry mucous membrane.

Also, fluid volume deficit and subsequent electrolyte imbalance result in hypocalcemia which triggers the sympathetic nerve to stimulate the heart to increase pulse rate.

Incidence

Gastroenteritis occurs in persons of all ages and is a major cause of morbidity and mortality in most developing countries. It ranks second to common cold as a cause of loss of work time and fifth as the cause of death among children. It can be life threatening in the elderly. The very young, old and immune suppressed patients can become quite ill with this self-limiting condition (Hinkle & Cheever, 2018).

Mode of Transmission

Fecal-oral is the main mode of transmission. The human hand is the main medium for transmission aided by flies where these are prevalent or rampant. Infective materials spread to the hands and then to the mouth (Hinkle & Cheever, 2018).

Types of Gastroenteritis.

There are two (2) types of gastroenteritis according to Schloss-berg, (2015) based on the location.

1. Parenteral – This is where the condition occurs in other systems of the body other than the gastrointestinal tract. Example is whooping cough among others.
2. Enteral – This is the most common form and is result from the inflammation of the gastroenteritis tract.

Two Types Qf Gastroenteritis Based On Onset And Duration

Acute gastroenteritis: It is an irritation and inflammation of the gastrointestinal tract which have a sudden and do not last longer. It can also resolve on its own when given an immediate treatment, and do not last longer.

Chronic gastroenteritis: It occurs gradually and last longer. This result when the condition in its acute state is left untreated.

Clinical Manifestation of Gastroenteritis

The following are some clinical manifestations of gastroenteritis according to Hinkle and Cheever, (2018).

1. General body weakness and feeling of restless as a result of inadequate intake of food and malabsorption.
2. Sudden loss of appetite
3. Frequent watery stool (diarrhoea)
4. Presence of blood or mucous in stool
5. Mild to severe abdominal pain
6. Nausea with or without vomiting which may be forceful and may occur right after eating.
7. Fever
8. Hyperactive bowel sounds may be present (Borborygmi).
9. Weight loss

In severe form, there can be

10. Rapid pulse as a result of re-hydration
11. Severe headache from fluid insufficiency
12. Poor skin turgor
13. Scanty and dark urine from dehydration.

Diagnostic Investigations

The following diagnostic investigations can be carried out to diagnose an individual of gastroenteritis (Lewis, Dirksen, Heitkemper, & Bucher, 2014).

1. The presentation of the clinical manifestation
2. History taking: this is to rule out any parenteral cause of illness
3. Stool examination to determine the parasite present in stool
4. Blood culture to identify the causative organism
5. Complete blood count (CBC). To know if there is rise in white blood cells
6. Abdominal X-ray
7. Serum electrolytes estimation to compare the normal electrolytes level such as sodium, potassium among others.

Treatments for Gastroenteritis Medical Management

Gastroenteritis when acute must be treated as medical emergency for the following reasons (Hinkle & Cheever, 2018);

To avoid the spread of disease to other people.

1. To avoid the complications of the disease.

2. Severe diarrhoea is treated with oral rehydration salt (ORS) therapy in which physiological salt solutions are given orally to correct dehydration and electrolyte imbalance.

3. Hospitalization may be needed as the patient requires as support treatment consisting of bed rest, nutritional support and increase fluid which needs monitoring

4. Histamine-receptor antagonist such as cimetidine may be prescribed as they block gastric secretion.

5. Antacids such as Aluminium Hydroxide may be used as buffers which can be administered hourly.

6. Analgesics such as Budesonide and Ibuprofen (NSAID) can also be given for abdominal pains.

7. Anti-emetics, for example Phenergan is given to reduce vomiting.

8. Intravenous fluids and electrolytes replacement can be given. The intravenous fluids which are normally given are normal saline, dextrose saline and ringers lactate.

9. Bismuth containing compounds such as prochlorperazine, or thiobenzamide can be given,

10. Antimicrobial agents are not usually used for gastroenteritis, although they are sometimes recommended if symptoms are particularly severe or if a susceptible bacterial cause is isolated or suspected. If antibiotics are to be employed, a macrolide (such as azithromycin) is preferred. Other antibiotics prescribed may include metronidazole, cefuroxime and ciprofloxacin

11. Antispasmodics example Buscopan

Nursing Management of Gastroenteritis (Lewis, Dirksen, Heitkemper, & Bucher, 2014)

Rest & Sleep

1. Encourage patient to rest to conserve energy and to reduce peristalsis.
2. Encourage patient to do minimum activities and turns to prevent thromboembolitics complications.

Pain & Relieve Management

1. Reassure patient of the appropriate measures that are put in place to reduce the pain
2. Encourage patient to describe the nature and characteristics of the pain
3. Encourage patient to assume a comfortable position
4. Local application of heat (as prescribe) to minimize pain
5. Encourage patient to engage in diversional activities.

Maintaining Food Intake

Keep accurate record of oral and intravenous fluids and records of outputs such as vomitus, urine and watery stool.

1. Monitor and record patient's daily weight for fluid gain or loss.
2. Assess patient's skin for dehydration
3. Encourage oral intake of fluids
4. Monitor flow rate of any intravenous fluids to prevent overload of fluid.
5. Put measure in place to prevent diarrhoea agents.

Maintaining Optimal Nutrition

1. Plan diet with patient and relatives to meet his or her nutritional demands.
2. Encourage oral toileting twice daily to stimulate appetite and prevent nausea.
3. Encourage patient to eat adequate caloric, protein and vitamin rich foods to control infection and provide adequate energy.
4. Encourage patient to food that are spicy free to prevent of the GI mucosa.
5. Encourage patient to eat in bit but frequent to prevent vomiting.
6. If patient cannot tolerate oral foods, put patient on parenteral feeding and assess patient's weight daily to prevent hyperglycaemia and monitor blood glucose every four or six hourly.

Anxiety Reduction

1. Reassure patient and relative of competent nursing care.
2. Introduce patient to patient with the same condition who are recovering positively.
3. Encourage patient and relatives to ask questions to free their minds 4. Answer all asked questions tactfully to allay their fears and anxieties.
4. Educate patient and her relatives on her condition.

Personal Hygiene

1. Encourage patient to do oral toileting twice daily.
2. Encourage patient to bath at least twice daily to minimize and control cross infection.

3. Encourage patient to do oral care always to prevent infections and anal sore due to frequent diarrhoea.
4. Change patient's linen daily.
5. Encourage patient to the need to change clothing after bathing.

Education of Patient And Family

1. Educate patient and relatives on the need to cover foods to prevent exposure of foods to flies.
2. Educate patient and family to eat warm foods.
3. Educate patient on the need to avoid open defecation..
4. Educate patient and family on the need to thoroughly wash raw fruits and vegetables with salty clear water before eating.
5. Educate patient and family on the need to practice personal and environmental hygiene.
6. Educate patient and family on the need to do proper hand washing before eating.
7. Educate patient and family on the early signs of dehydration and diarrhoea.

Complications (Lewis, Dirksen, Heitkemper, & Bucher, 2014)

As specified in Lewis et al. (2014), if early treatment is not sought for, the following complications may develop.

1. Acute renal failure is due to frequent vomiting and diarrhoea may lead to dehydration, which in turn may decrease blood volume and hence reduced circulatory volume. This therefore decreases renal perfusion and may lead to renal failure.

2. Fluid and electrolytes Imbalance as a result of diarrhoea and vomiting may lead to loss of hydrogen ions from the stomach. Bicarbonate ions may also be lost through diarrhoea which may cause imbalance in these electrolytes in the blood and may lead to acidosis or alkalosis.

3. Convulsions (in case of a child) due to inadequate blood supply to the brain and fever and also infections travelling to the brain causes problem to the brain which may lead to convulsion.

4. Malnutrition this occurs when the body doesn't get enough nutrients e.g., poor diet and digestive conditions.

5. Dehydration may occur as a result of diarrhoea. In diarrhoea, there is loss of bicarbonate ions from the intravascular component. The loss of these electrolytes goes along with plasma (water), causing the increase in osmotic/oncotic pressure. This causes fluid to shift from the extracellular and intracellular spaces, causing the cells to shrink causing dehydration.

6. Cardiac failure occurs as a result of decreased cardiac output. The heart is the first organ to receive oxygenated blood. In diarrhoea, the patient losses fluid and subsequently lead to hypovolaemia. This leads to decreased blood volume and hence decreased cardiac perfusion. This then leads to ischaemia and may lead to cardiac failure.

7. Hypovolemic Shock occurs as a result of fluid lost along with electrolytes. As the fluids are lost from the intravascular spaces, the volume of the blood reduces, causing reduction in cardiac output, and hence, decreased perfusion to the vital organs, leading to shock

1.12 Validation of Data

Validation is the extent to which a measure, indicator or a method of data collection possesses the quality of being sound or true as far as can be judged (Weller, 2016) . Data collected from Miss E.A.A were similar to those the relative told me, also during my home visit most of the information given to me by Miss E.A.A and her relative at the hospital were confirmed by other relative in the house. Data presented by Miss E.A.A and the diagnostic investigations carried out were similar to those in the literature review. When the patient's condition became stable and all the relatives had calm down, I again asked them the same questions which were asked previously and the same response was given. Upon this I therefore believe the information gathered was authentic and valid for study.

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, 2016).

It forms the second phase of patient and family care study. This section of the client/family care study comprises of examination of data and grouping them into constituent parts. This then helps identify client's problems and also formulation of nursing diagnosis.

Analysis also help to prioritize client's problems and carefully institute plans to aid solve the health problems of the client and the family.

It also comprises of critical examination and interpretation of the data collected during assessment of the patient and comparison of the results of investigations carried out with standards in literature. It also talks about the pharmacology of drugs prescribed by the Doctor and also interpretation and identification of the patient and family health needs; which comprises of physical, social, spiritual and psychological health needs of the Miss. E.A.A and her family.

This chapter also reviews the causes, clinical manifestation, diagnostic investigations, medical pharmacological management, complications of gastroenteritis, patient and family strength related health problems identified and their respective nursing diagnosis.

2.1 Comparison of Data with Standard

This is where patient’s data are studied and compared with the standards set in literature. They include the following;

1. Diagnostic investigation/ Tests
2. Causes/ Risk factors
3. Clinical features/ Sign and Symptom

Medical/ Surgical treatment

A. Diagnostic Investigation/Test

Investigations are procedures performed to establish a diagnosis, to monitor a previous health disease or the effectiveness of treatment (Weller, 2016) . They can be classified as no invasive when there is no direct entry into the body. Example is recording a body weight on invasive, example is endoscopy or blood sampling.

The following diagnostic investigations were carried out on Miss. E.A.A

1. Urine routine and examination
2. Full blood count (FBC)
3. Blood sample for malaria parasites (MP's)
4. Helicobacter pyloric test
5. Abdominopelvic USG
6. Pregnancy test

Table 2. 1: Comparison of Laboratory Investigations In Literature With Those That Were Carried Out On Miss. E.A.A

Laboratory Investigation In Literature Review	**Laboratory Investigations Conducted On Patient**
1. Stool examination	1. Stool examination was not done.
2. Blood culture	2. Blood culture was not done.
3. Complete blood count	3. Complete blood count was done.
4. Abdominal X-ray	4. Abdominal X-ray was not done.

Table 2.1: Comparison of Laboratory Investigations Cont'd…

Laboratory Investigation In Literature Review	Laboratory Investigations Conducted On Patient
5. Serum electrolyte estimation	5. Serum electrolyte estimation was not done.
6. Urine routine examination	6. Urine routine examination was done
7. Pregnancy test was not in literature review	7. Pregnancy test was done.
8. Helicobacter pylori test was not in literature review	8. Helicobacter pylori test was done.
9. Malaria parasite test was not in literature review	9. Malaria parasite test was done.
10. Abdominopelvic ultrasonography was not in literature review	10. Abdominopelvic ultrasonography was done.

With reference to table 2.1 the tests that were not in the literature but were conducted on Miss. E.A.A to rule out other causes from her condition (gastroenteritis). Also, serum electrolytes estimation, stool examination and blood culture and abdominal x-ray were not conducted on Miss. E.A.A because the diagnosis was confirmed using the result of the abdominopelvic ultrasonography.

Table 2. 2: Diagnostic Investigations Carried Out on Patient

Date	Specimen	Investigation	Results	Normal values	Interpretation	Remarks
11/11/22	Blood	Blood film for malaria parasite	Malaria parasite (--) absent.	No malaria parasite should be present.	Absent of malaria parasite indicate that patient is not having malaria.	No anti-malaria drug given.
11/11/2022	Blood	**Full blood count** Haemoglobin level	13.1g/dl	**Females**:12.0-16.0g/dl **Males**: 14.0-18.0g/dl.	Normal	No treatment given
		White blood cell count	11.4g/dl	4.0-10.0 $x10^3$g/dl.	Abnormal	Antibiotics such as ciprofloxacin and metronidazole were given
		Red blood cells	4.7 x 10^{12}g/dl	4.5-5.5x10^{12}g/dl	Normal	No treatment given
11/11/22	Blood	Helicobacter pylori	Negative	None should be present	It indicates absence of Helicobacter pylori.	No treatment given

Table 2.2: Diagnostic Investigations Carried Out on Patient Cont'd…

Date	Specimen	Investigation	Results	Normal values	Interpretation	Remarks
11/11/22	Abdomen	**Abdominopelvic ultrasonography**				
		Liver	0.1cm	Should not be enlarged	No hepatic problem	No treatment given
		Gall bladder	16.6cm	Should not be enlarged and inflamed.	It indicates healthy gall bladder	No treatment given
		Bowl loops	Dilated with thickened wall with increased peristaltic movement	Should not be dilated and peristaltic movement not increase	Findings are in keeping with inflammatory bowel disease.	Prescribed analgesic and antibiotics like paracetamol and metronidazole were administered
12/11/22	Urine	**Urine R/E**				
		Color	Amber	Amber/straw	Normal	No treatment given
		Clarity	Clear	Clear	Normal	No treatment given

		Ph	6.4	4.6-8.0	Normal	No treatment given
		Glucose	0.0	Glucose should not be in urine	Normal	No treatment given
12/11/22	Urine	Pregnancy test	Negative	Should be negative	No possible pregnancy	No treatment given.

B. Cause of Patient's Illness

From the history taking from my patient, physical examinations performed on my patient and the laboratory investigation carried out on Miss E.A.A condition can be confirmed to be caused by infections as indicated in the elevation of white blood cell count. Also, it can be associated with any the predisposing factors such as eating and drinking contaminated foods and water as well as the poor environmental sanitation system.

C. Clinical Manifestation

Table 2. 3: **Comparison of Clinical Manifestation of Gastroenteritis in Literature and Those Exhibited By Miss E.A.A.**

Literature Review	**Presentation Miss. E.A.A**
1. General body weakness	1. Patient had general body weakness
2. Sudden loss of appetite	2. Patient had sudden loss of appetite
3. Frequent watery stool	3. Patient had frequent watery stool
4. Presence of blood or mucous in stool	4. Patient had did not experience it
5. Mild to severe abdominal pain	5. Patient had abdominal pain
6. Nausea with or without vomiting	6. Was exhibited by patient
7. Fever	7. She had fever
8. Hyperactive bowel sound (borborgmi)	8. Was not exhibited by patient
9. Weight loss	9. She did not had weight loss
10. Rapid pulse	10. She did not exhibit rapid pulse
11. Severe headache from fluid insufficiency	11. She did not had severe headache
12. Poor skin turgor	12. Was not exhibited by patient
13. Scanty and dark urine	13. Was not exhibited by patient

The above comparisons indicate that Miss E.A.A had gastroenteritis and exhibited the signs and symptoms captured in the literature reviewed

D. Specific Treatments Ordered

Treatment refers to the mode of dealing with a patient or disease in order to prevent, restore health or relieve distress (Weller, 2016)

Table 2. 4: **Comparison of Treatments Given to Miss E.A.A with Those in Literature Review**

Drugs Outlined In Literature Review	**Drug Give To Miss E.A.A**
1. Oral rehydrated salt	1. Was not administered
2. Administration of antibiotic such as ciprofloxacin and metronidazole.	2. Intravenous ciprofloxacin 400mg bd x 3days and intravenous metronidazole 500mg tds x 3days. 3. Tablet ciprofloxacin 500mg bd x 7days and tablet metronidazole 400mg x 7days.
3. Anti-emetics such as promethazine and metoclopramide.	4. Was not administered.
4. Adequate hydration and electrolyte balance such as normal saline, dextrose, ringers lactate, etc.	5. Intravenous normal saline 1liter x 3days and intravenous ringers lactate 1liter x 3days.
5. Antacids such as Magnesium Tricilicate can also be administered.	6. Magnesium Tricilicate 15mls tds x 5days was served.

The above drugs prescribed and administered to Miss. E.A.A compared to that of literature reviewed clearly indicate that, Miss E.A.A was given the right drugs with right dosses which aided in her speedy recovery.

Table 2. 5: **Pharmacology** of **Drugs**

Date	**Drugs Name**	**Dosage/ Route In Literature Review**	**Dosage/Route Of Administration For Miss E.A.A.**	**Classification**	**Desired Effects**	**Actual Action Observed**	**Side Effect And Remarks**
11/11/2022	Normal saline	Dosage: Depends on the patient fluid and electrolyte imbalance levels. Route Intravenously	Dosage: 1 litre over 24 hours. Route: Intravenously	Electrolytic and fluid balance (intravenous fluid)	Provide sodium chloride in patient with reduced oral or fluid intake and replace lost electrolytes and fluid replacement.	Patient provided with needed energy, electrolytes and adequate hydration.	Fluid overload may result in pulmonary oedema and hyperventilation. Patient did not experience ant of these.
11/11/2022	Ringers Lactate	Dosage: Amount to be given depend on patient fluid and electrolyte imbalance level as well as patient condition.	Patient was given 1litre with 24 hours intravenously.	Intravenous fluid.	Replace fluid and electrolyte in those who have low blood volume and low blood pressure.	Patient's fluid and electrolyte replaced.	Febrile, venous thrombosis, hypervolemia and venous irritation. Patient did not experienced any of the above.

Table 2.5: **Pharmacology** of **Drugs Cont'd…**

Date	**Drugs Name**	**Dosage/ Route In Literature Review**	**Dosage/Route Of Administration For Miss E.A.A.**	**Classification**	**Desired Effects**	**Actual Action Observed**	**Side Effect And Remarks**
11/11/22	Paracetamol	Dosage; 0.5- 1g every 4 – 6 hours; maximum daily dose is 4g. Route; oral, rectal, IV.	Dosage; 1g tid for 5days. Route: Orally. Intravenously.	Antipyretics/Analgesics	To relieve pain by blocking generation of pain impulses, probably by inhibiting prostaglandin synthesis in the central nervous system.	Patient was relieved of fever.	Dizziness, urticarial liver damage and disorientation. Patient exhibited none of these side effects.
11/11/22	Metronidazole	Dosage; 400-800mg three times daily. Route; Intravenously, oral.	Dosage; 500mg intravenously and 400mg orally twice daily. Route: Intravenously and orally.	Antibacterial, antiprotozoal.	Disrupts DNA, inhibiting nucleic acid synthesis.	Patient did not show any sign of infection.	Anorexia, dry mouth, diarrhoea, constipation, dizziness. None of the above effect was observed.

Table 2.5: **Pharmacology** of **Drugs Cont'd…**

Date	**Drugs Name**	**Dosage/ Route In Literature Review**	**Dosage/Route Of Administration For Miss E.A.A.**	**Classification**	**Desired Effects**	**Actual Action Observed**	**Side Effect And Remarks**
11/11/22	Ciprofloxacin	Dosage; 400mg-750mog every 12 hours for 7-14days. Route: Intravenously, oral	Dosage; 400mg intravenously for 48 hours and 500mg orally for twice daily for 5days. Route: Intravenously Orally.	Antibiotic (Fluoroquinolone)	It inhibits relaxation of DNA; Inhibits DNA gyrase in susceptible organisms; promotes breakage of double stranded DNA.	Patient's infection resolved	Nausea and vomiting or constipation, flatulence, rashes, abdominal pains. No side effect was observed on patient.
11/11/22	Magnesium Tricilicate	Dosage; 10-15mls three time daily for 3-5days Route: Orally	Dosage; 15mls three times daily for 5days. Route: Orally	Acid controlling drug (Antacid).	It neutralises the acid content produced by the parietal cells in the gastric mucosa.	Patient abdominal pains were subsided as the acidity content was neutralised to prevent erosion of the gastrointestinal mucosa to induce pains.	Chalky taste, constipation, nausea, vomiting. No side effect was observed on patient.

E. Complication of Patient Condition

Complication is an accident or second disease process arising during the course of or following the primary condition which may be fatal (Weller, 2016).

Due to the holistic management of Miss E.A.A's condition by the health team, she did not experience any of the complications indicated in the literature reviewed.

2.2 Patient/Family Strength Definition

Strength refers to the factors that contribute to patient wellbeing (Homby, 2019)

1. Patient could tolerate warm bath (11/11/2022)
2. Patient and relatives could express their fear (11/11/2022)
3. Patient could describe the nature, location and the intensity of the pain (11/11/2022)
4. Miss E.A.A could describe the nature of the stool and number of times (5times) (12/11/2022)
5. Patient could perform basic activities with assistance (12/11/2022)
6. Patient could consume 120mls of her porridge served (13/11/2022)
7. Patient and relatives were ready to know more about her condition (gastroenteritis) (14/11/2022)

2.3 Patient/Family Problem Definition

Patient /family health problems are thee health issues of patient and family that are difficult for them to solve or understand (Homby, 2019)

1. Patient has fever (38.2^0C) (11/11/2022).
2. Patient and relatives were anxious (11/11/2022)
3. Patient complained of abdominal pain (11/11/2022)
4. Patient complained of diarrhoea (5x) (12/11/2022)
5. Patient complained of general body weakness (12/11/2022)

6. Patient complained of loss of appetite (13/11/2022)
7. Patient and relatives have less knowledge about the condition (15/11/2022)

2.4 Nursing Diagnoses

Nursing diagnosis is the organization, analysis, synthesis and summarization of data collected and determines the patient's need for care (Hinkle & Cheever, 2018).

1. Hyperthermia (38.2^{o}C) related to the noxious toxins and inflammatory process in the gastrointestinal tract (GIT) (11/11/2022).
2. Anxiety related to unknown outcome of the condition (11/11/2022)
3. Acute abdominal pain related to inflammatory process and increased peristalsis in the gastrointestinal tract (intestine) (11/11/2022)
4. Risk for fluid volume and electrolyte imbalance (less than body requirement) as evidenced by diarrhoea (5x) (12/11/2022)
5. Activity intolerance related to general body weakness (12/11/2022)
6. Risk for nutritional imbalance (less than body requirement) as evidenced by loss of appetite (13/11/2022).
7. Knowledge deficit related to inadequate information diagnosis, treatment and prognosis of gastroenteritis (15/11/2022)

CHAPTER THREE

PLANNING FOR PATIENT AND FAMILY CARE

3.0 Introduction

Planning is the development of measurable goals and outcomes as well as plan of care designed to assist the patient in solving the diagnose problems and achieving the identified goals and desired outcome (Hinkle & Cheever, 2018)

3.1 Objective/Outcome Criteria

Nursing outcome refers to a measurable behaviour or perception demonstrated by an individual, a family, group or a community that is responsible to nursing intervention (Herdsman and Kamitsuru, 2018).

1) Patient's body temperature will reduce by at least 1 degree Celsius within 4hours as evidenced by;

a) Patient verbalizing that she is no more feeling warm to touch.

b) Nurse observing that patient's body temperature is within the normal range ($36.2^{O}C$ - $37.2^{O}C$).

2) Miss E.A.A and her relatives will be relieved from anxiety within 24hours as evidenced by;

a) Patient and relatives verbalizing that they are no more feeling anxious.

b) Nurse observing that patient and relatives are having relaxed facial expression and are cooperating with the care.

3) Patient will be relieved from the abdominal pains within 48hours as evidenced by;

a) Patient verbalizing relieved of the abdominal pain.

b) Nurse observing that patient is having a calm and relaxed facial expression.

4) Patient will maintain normal fluid volume and electrolyte balance throughout period of hospitalization as evidenced by;

a) Patient verbalising that she has regain her normal bowel pattern.

b) Nurse observing that patient is having good skin turgor.

5) Patient will be able to perform her activities of daily living without assistance within 24hours as evidenced by;

a) Patient verbalizing that she is relieved from the body weakness.

b) Nurse observing performing self- care activities like bathing and grooming without assistance.

6) Miss E.A.A's appetite will improve throughout period of hospitalization as evidenced by;

a) Patient verbalizing that she has regain her appetite.

b) Nurse observing that patient has consumed 800mls of her porridge served.

7) Patient and relatives will gain adequate knowledge about the condition (acute gastroenteritis) within 2hours as evidenced by;

a) Patient and relatives being able to mention some causes and preventions of the condition (acute gastroenteritis).

b) Nurse obtaining positive feedback on the information delivered to patient and relatives.

Table 3. 1: **Nursing Care Plan for Miss E.A.A**

Date & Time	**Nursing Diagnosis**	**Nursing Outcome Criteria**	**Nursing Orders**	**Nursing Interventions**	**Date And Time**	**Evaluation**	**Sign**
11/11/22 7:40pm	Hyperthermia (38.2 ^{0}C) related to infectious and inflammatory processes in the gastrointestinal tract.	Patient body temperature will be reduced by at least 1^{0}C within 4hours as evidence by: a. Patient verberlizing that she is no more feeling warm to touch. b. Nurse observing that patient body temperature is within the normal range (36.8 ^{0}C)	1. Reassure patient and relatives 2. Tepid sponge patient 3. Ensure adequate ventilation 4. Remove excess clothing 5. Monitor patient vital signs(temperature) 6. Administer prescribed antipyretic	1. Patient and relatives were reassured that the temperature will be normal 2. Patient was tepid sponge to cool down her body temperature 3. Windows near patient were opened to enhance adequate ventilation 4. Excess clothing were removed to cool down patient body temperature 5. Patient boy was monitored and recorded (36.4 ^{0}C) 6. Intravenous paracetamol was served	11/11/22 11:40pm	Goal was fully met as evidenced by patient verbalizing that she is no more feeling warm to touch and nurse observing that patient body temperature is within the normal range (36.8^{0}C).	A.P

Table 3.1 Nursing Care Plan for Miss E.A.A continued

Date & Time	Nursing Diagnosis	Nursing Outcome Criteria	Nursing Orders	Nursing Interventions	Date And Time	Evaluation	Sign
11/11/22 7:40pm	Anxiety related to unknown outcome of the condition (acute gastroenteritis)	Miss E.A.A and her family will be relieved of the anxiety within 24 hours as evidence by: a. Patient and relatives verbalizing that they are no more feeling anxious b. Nurse observing that patient and relatives are having relaxed facial expression and are coping with the care.	1. Reassure patient and relatives 2. Assess the anxiety status of patient and relative 3. Explain all procedures to the relatives 4. Encourage patient and relative to ask question 5. Answer all question tactfully 6. Introduce patient to other patient in the ward who are recovering positively from gastroenteritis	1. Patient and relatives were reassured of competent nursing care to allay their fear and anxiety 2. Patient and relative levels of anxiety were assessed 3. All procedures were explain to patient and relatives to allay their fears and anxiety 4. Patient and relative were encourage to ask questions to free up their minds 5. All question were answered tactfully 6. Patient will be introduce to other patient who are positively recovering from gastroenteritis	12/11/22 7:40am	Goal was fully met as patient and relatives verbalizing that they are no more feeling anxious and nurse observing that patient and relatives are having relaxed facial expression and are coping with the care.	A.P

Table 3.1 Nursing Care Plan for Miss E.A.A continued

Date & Time	Nursing Diagnosis	Nursing Outcome Criteria	Nursing Orders	Nursing Interventions	Date & Time	Evaluation	Sign
11/11/22 7:45pm	Acute abdominal pain related to inflammatory processes and increase peristalsis in the gastrointestinal tract (intestine)	Patient abdominal pain will subside within 48hours as evidence by a. Patient verbalizing the pain has subsided b. Nurse observing that patient is having a calm	1. Reassured patient and relatives 2. Assess patient level pain 3. Provide divisional therapy 4. Provide patient with warm comfortable bed. 5. Allow patient to assume comfortable position	1. Patient and relatives were reassured of competent nursing care 2. Patient level of pain was assessed (score 0) 3. Ward television was switched on to divert patient from the pain 4. Patient was provided with warm comfortable bed 5. Patient was allowed to assumed comfortable position that will alleviate the pain	13/11/22 7:45pm	Goal fully met as evidenced by patient verbalizing that the pain has subsided and nurse observing that patient is having a calm and relax facial expression.	**A.P**

		and relax facial expression	6. Serve prescribe analgesics and antibiotics	6. Intravenous paracetamol 1g and intravenous metronidazole 500mg was served.			

Table 3.1 Nursing Care Plan for Miss E.A.A continued

Date & Time	Nursing Diagnosis	Nursing Outcome Criteria	Nursing Orders	Nursing Interventions	Date And Time	Evaluation	Sign
12/11/22 8:45am	Risk for fluid volume and electrolyte imbalanced (less than body requirement) as evidenced by diarrhoea (5 times)	Patient would be prevented from fluid and electrolyte volume imbalanced throughout the period of hospitalization as evidenced by, a. The nurse observing patient has a normal skin turgor. b. Patient verbalizing diarrhoea has subsided.	1. Reassure patient and relatives 2. Assess for signs and symptoms of dehydration. 3. Monitor blood pressure. 4. Encourage patient to take liberal fluids 5. Assess characteristics of diarrheal stools. 6. Administer isotonic intravenous fluids and antacid.	1. Patient and relatives were reassured of competent nursing care 2. Patient's skin was assessed for dehydration 3. Blood pressure was monitored and recorded to rule out hypovolemic shock. 4. Patient was encouraged to take liberal fluids to prevent dehydration 5. Patient stool was assessed to know the nature of the stool 6. Intravenous normal saline 1litre and magnesium sulphate 15mils was served	15/11/22 08:45am	Goal fully met as evidenced by nurse observing patient having a normal skin turgor and patient verbalizing diarrhoea has subsided.	**A.P**

Table 3.1 Nursing Care Plan for Miss E.A.A continued

Date & Time	Nursing Diagnosis	Nursing Outcome Criteria	Nursing Orders	Nursing Interventions	Date And Time	Evaluation	Sign
12/11/2022 8:45am	Activity intolerance related to general body weakness	Patient will be able to perform her activities of daily living without assistant within 24hours as evidenced by: a. Patient verbalizing that she is relieved from the body weakness b. Nurse observing that patient is performing self-care activities like bathing and grooming without assistance.	1. Reassure patient and relatives 2. Help patient to perform self-4care activities 3. Encourage patient to do minimal turns in bed 4. Encourage patient to do active exercise 5. Encourage patient to take enough bed rest. 6. Administer prescribed analgesics and antipyretics	1. Patient and relatives were reassured of competent nursing care. 2. Patient was assisted to perform self – care activities like grooming and getting out of bed. 3. Patient was encourage to do minimal things in bed to enhance adequate circulation 4. Patient was encouraged to do active exercise that she can tolerate 5. Patient was encouraged to take enough bed rest to help conserve energy 6. Tablet Paracetamol 1g and Tablet ciprofloxacin 50mg was served.	13/11/22 08:45am	Goal was fully met as evidenced by patient verbalizing that she is relieved from the body weakness and nurse observing that patient is performing self-care activities like bathing and grooming without assistance.	A.P

Table 3.1 Nursing Care Plan for Miss E.A.A continued

Date & Time	Nursing Diagnosis	Nursing Outcome Criteria	Nursing Orders	Nursing Interventions	Date And Time	Evaluation	Sign
13/11/22 7:30am	Risk for nutritional imbalance (less than body requirement) as evidenced by loss of appetite	Patient appetite will improve within 48hours as evidence by: b. Patient verbalizing she has regain her appetite c. Nurse observing that patient has consume 800mls of her porridge served.	1. Reassure patient and relatives 2. Plan diet with patient and relatives 3. Encourage patient to perform oral toileting twice daily 4. Remove all nauseating items 5. Serve patient meal attractive 6. Encourage patient to eat in bit but at regular interval	1. Patient and relatives was reassured 2. Diets were planned with patient to know her likes and dislikes. 3. Patient was encourage to perform oral toileting in other to stimulate her appetite 4. Bedpan was removed from patient bed side. 5. Patient meals were served in a neat plate and tray with flower. to enhance her appetite. 6. Patient was encouraged to eat in bit but at a regular interval to prevent possible vomiting	15/11/22 07:30am	Goal was fully met as evidenced by patient verbalizing she has regain her appetite and nurse observing that patient has consumed 800mls of her porridge served.	A.P

Table 3.1 Nursing Care Plan for Miss E.A.A continued

Date & Time	Nursing Diagnosis	Nursing Outcome Criteria	Nursing Orders	Nursing Interventions	Date And Time	Evaluation	Sign
15/11/22 9:00am	Knowledge deficit related to inadequate information about diagnosis, treatment and prognosis of acute gastroenteritis	Patient and family will gain adequate knowledge on gastroenteritis within period of hospitalization as evidenced by; a). Patient and family being able to provide correct answers to questions posed to them with on the causes, management	1. Reassure patient and relatives 2. Assess their knowledge on his condition. 3. Inform patient and family about ways of preventing the symptoms and some management for the disease.	1. Patient and relatives were reassured that they will gain adequate knowledge on the condition. 2. Their knowledge on his condition was assessed. 3. Patient and family were informed about ways of preventing the symptoms and some management for the disease.	15/11/22 11:00am	Goal fully met as patient and family were able to provide correct answers to questions posed to them on the causes, management and prevention of gastroenteritis and nurse observing that patient and	A.P

		and prevention of gastroenteritis. b). Nurse observing that patient and relatives practice knowledge gained on gastroenteritis	4. Allow patient and family to ask questions for clarification. 5. Answer questions in simple understandable language without using professional jargons. 6. Assess patient/family motivation and willingness in learning	4. Patient and family were allowed to ask questions for clarifications on issues about the disease bothering their minds. 5. All questions were answered in simple, plain and clear language without the use of professional jargons. 6. Patient/family willingness and motivation in learning were assessed.		relatives practice knowledge gained on gastroenteritis.	

CHAPTER FOUR

IMPLEMENTING PATIENT/FAMILY CARE PLAN

4.0 Introduction

Implementation refers to the actualization or carrying out of the plan of care through nursing interventions (Hinkle & Cheever, 2018)

Nursing intervention is any act carried out to prevent harm to patient or to improve, promote or enhance their physical, natural or spiritual well-being (Weller, 2016).

The patient and relatives were therefore encouraged to play their role in the care to aid in the speedy recovery of the patient and the Nurse bearing in mind the individuality of patient and relatives.

4.1 Summary of the Actual Nursing Care

Summary of actual Nursing care rendered to Miss. E.A.A and family. This comprises of the nursing orders and interventions that were rendered to Miss E.A.A and her family against the identified health problems.

The actual nursing care rendered to patient and his family commenced on the day of admission, 11th November, 2022 to the time care was terminated. The management of patient and his family was planned to meet their physiological, psychological, emotional and spiritual needs.

First Day of Admission (11ThNovember, 2022)

Miss E.A.A was diagnosed of Acute Gastroenteritis and was admitted to the Female Medical Ward through the accident and emergency unit of the Sunyani Municipal Hospital on the 11th of November, 2022 at 7:00 pm with temperature of 38.2^{o}C (fever), patient and relatives were anxious on observation and with complains of severe abdominal pain.

Patient was brought to the ward in a wheel chair accompanied by a relative and a staff Nurse in an alert and conscious state. They were warmly welcomed to the ward and offered a seat.

Confirmation of patient was done by mentioning the name and other particulars like diagnosis and treatments on the transfer section on the ward computer.

Patient and relatives were introduced to the Nurses on duty, other close patients and were oriented to the ward and it annexes. They were reassured of competent nursing care and patient was made comfortable in bed. Her baseline vital signs were checked and recorded as followed after procedures have been explained to her.

1. Temperature 38.2^0C
2. Pulse 92bpm
3. Blood Pressure 130/ 92mmHg
4. Respiration 19cpm
5. Weight 60kg

At 7:40pm, it was found out (11/11/2022) that, patient had high body temperature (fever), a nursing diagnosis of hyperthermia (38.2^0C) related to inflammatory processes and released of bacteria toxins the stomach and intestinal mucosa. An objective was set to enable patient maintain his normal body temperature that is (36.8^oC-37.2^oC) within 4hours.The following nursing interventions were carried out; patient and relatives were reassured of that her body temperature will be normal, adequate room ventilation was ensured by opening nearby windows, she was tepid sponged to help cool down her body temperature, cold drinks and liberal fluids were to be served, Tablet Paracetamol 1gram was administered as prescribed, , temperature was checked every 4 hours as appropriate and recorded.

Goal was evaluated on 11th November, 2022 at 11:40pm and was fully met as evidenced by patient verbalizing that she is no more feeling warm to touch and nurse observing that patient body temperature is within the normal range (36.8^0C).

At 7:40pm, patient and relatives were observed to be anxious due to unknown outcome of the condition. An objective was set to relieve patient and relative from the anxiety within 24hours.

The following interventions were set; patient and relatives were reassured of competent health team to allay their fears and anxiety, their level of anxiety was assessed using their facial expressions, all procedures were explained to patient and relatives to reduce the fears and anxiety, they were also encouraged to ask any questions bordering their minds and they were introduced to patients in the ward with same conditions who are recovering positively.

Goals were evaluated on 12th November, 2022 at 7:40am and were fully met as patient and relatives were observed to have calm facial expression and were cooperating with care and patient and relatives verbalizing absence of the anxiety and they confirmed by verbalizing that they are no more feeling anxious.

At 07:45pm, patient gave a verbal complaint of abdominal pains and a nursing diagnoses of acute abdominal pains related to inflammatory process and increased peristalsis in gastrointestinal tract (intestine) was formulated and a goal was made to relieve patient of the abdominal pains within an hour. The following interventions were carried out to meet the objective set; patient and relatives were reassured that the pain will subside in the course of treatment, the level of pain was assessed pain rating scale of 0 – 10, ward television was turned on to divert patient's mind from the pain, patient was allowed to assume a comfortable position to alleviate the pain, she was encouraged to verbalize her feelings about the pain and prescribed tablet paracetamol 1gram, intravenous metronidazole 500mg and intravenous ciprofloxacin 400mg were served.

She was managed on the following drugs;

1. Intravenous Normal Saline 1 Litre within 24hours around
2. Ringers Lactate 1Litre over 24hours.
3. Intravenous Ciprofloxacin 400mg bid for 24 hours
4. Intravenous Metronidazole 500mg x 24hours

The following laboratory investigations were carried on my patient

1. Full blood count
2. H- pylori test
3. Malaria test
4. Abdominopelvic Ultrasonography

Patient and relatives were informed that the National Health Insurance Scheme covers some medicines but others may not be covered and so they will be prescribed for them to buy them from the pharmacy shop (Green Light) or they can be asked to pay for such drugs. She was admitted into the admission section on the ward computer.

I reintroduced myself to patient as a final year student nurse of the Nursing and Midwifery Training College, Berekum, who would like to take her and her family for my care study. Miss. E. A.A and her relatives were informed that the care study is a requirement by the Nursing and Midwifery Council of Ghana in partial fulfilment towards the award of license to practice as a Registered General Nurse. I explained to the patient and her relatives about the concept of the patient/family care study and assured them of privacy and confidentiality.

It was added that a report will be written after the entire event. Miss. E. A.A. and her relatives agreed to my request and promised to offer me the necessary information and assistance. I then expressed my gratitude to them. Discharge planning was initiated with the relatives; thus, they will continue the care at home once she is well. I decided to choose this patient for the study because I wanted to know more about gastroenteritis as the incidence of this condition is more prevalent in this locality and identify empirical ways of preventing it.

At 10:00pm, patients' vital signs were checked and recorded as indicated in the appendix, due medications were administered. Patient slept around 10:10pm.

Second Day of Admission 12Th November, 2022

On the second day of admission, Miss E.A.A woke up at 5:30am slightly better than the previous day she took her bath with warm water, urine sample bottle was given to her to take urine sample to the lab for investigation such as urine R/E and pregnancy test as ordered during ward rounds after she was reviewed by the doctor on duty.

At 6:00am, routine activities such as making of patient's bed and changing linen when dirty, monitoring of vital signs with recordings as follows; pulse 85bpm, respiration 21cpm, blood pressure 120/60mmHg and temperature of 36.7 ^{0}C. Administration of all due medicines as prescribed were commenced and Miss E.A.A took in millet porridge and "koose".

At 7:40am, evaluation of set objective on 11th November, 2022 to relieve patients and relatives from the anxiety within 24hours was done and goal was fully met as patient and relatives were observed to have calm facial expression and were cooperating with care and patient and relatives verbalizing absence of the anxiety and they confirmed by verbalizing that they are no more feeling anxious.

At 8:45am, patient complained of having diarrhoea (5 times) and a nursing diagnosis of risk for fluid volume and electrolyte imbalanced (less than body requirement) as evidenced by diarrhoea (5 times). An objective was set to prevent patient from fluid and electrolyte imbalance throughout her period of hospitalization and the following nursing intervention were done for her; Patient and relatives were reassured of competent health care, she was encouraged to take in adequate liberal fluids to prevent dehydration, she was assessed for possible dehydration and intravenous Normal Saline 1Litre over 24 hours tablet ciprofloxacin 500mg and tablet metronidazole 400mg and suspension magnesium trisilicate 15mls were served.

At 8:45am, patient complained of general weakness and a nursing diagnosis of Activity intolerance related to general body weakness was formulated. An objective was set to perform activities of her daily living within 24hours and the following intervention were carried out for her; Miss E.A.A and her relatives were reassured of competent nursing intervention, patient

was encouraged to do minimal turns in bed to enhance adequate circulation, she was encouraged to do active exercises that she could tolerate and patient was educated on the need to take adequate bed rest to conserve much energy and all prescribed medications were served. She was reviewed by Doctor on duty at 9:45am, which her plan was to continue treatment.

At 12:50pm patient was served with her lunch which was boiled yam with vegetable stew and a cup of orange juice.

At 2:00pm, her vitals were checked and recorded as indicated in the appendix. Patient was made comfortable.

The first home visit was conducted at 3:00pm to Docter Berko. Permission was granted by the ward in-charge and patient was informed on the purpose of the home visit. I left the ward around 3:00pm.

At 5:30pm, patient ate banku and groundnut soup with fish and banana as supper.

At 6:00pm, patients' vital signs were checked and recorded as indicated in the appendix.

A 6:40pm, she maintained her evening routines that promotes sleep such as toileting, bathing, oral hygiene.

At 10:00pm, patients' vital signs were checked and recorded as indicated in the appendix, due medications were administered. Patient was put to sleep at 10:30pm.

Third Day of Admission, (13Th November, 2022)

Patient woke up early in the morning at 5:35am on the third day, brush her teeth, took her bath and groomed herself and took in hot milo tea with bread as breakfast of which she was able to consume all on observation and organized herself for ward rounds.

At 6:00am, routine vital signs were checked and recorded as; pulse 94bpm, respiration 16cpm, blood pressure 110/86mmHg and temperature 36.5^{0}C.

At 7:30am, patient complained of loss of appetite and a nursing diagnosis risk for nutritional imbalance (less than body requirement) as evidenced by loss of appetite was formulated. An

objective was set to improve patient appetite throughout period of hospitalization and the following nursing interventions were put in place; patient and relatives were reassured of competent nursing care, diets were planned with patient and relatives to know patient's likes and dislikes, all nauseating items were removed from patient's bed side, her meals were served attractively and she was encouraged to do oral toileting twice daily to enhance her appetite.

At 7:45am, evaluation of set objective on 12th November, 2022 goal was made to relieve patient of the abdominal pains within 48hours was fully met as it was evidenced by patient verbalizing relief of the abdominal pain and nurse observing that patient is having a calm and relaxed facial expression.

At 8:00am, she was reviewed by the doctor on duty with plan of care to continue the due medications.

At 08:45am, evaluation of set objective on 12th November, 2022 to enable patient to perform activities of daily living was fully met as nurse observed patient to participating willingly in necessary and desired activities and patient also verbalized that she does not feel weak anymore.

At 12:55pm, patient was served with fufu with smoked fish with slice of water melon.

At 2:00pm, patient's vital signs were monitored and recorded as stated in the appendix.

At 5:20pm patient was served with banku with vegetable soup as supper.

At 6:00pm, her vitals were checked and recorded as indicated in the appendix. Due medications were administered per treatment sheet. Patient watched the ward television after taking care of her personal hygiene needs.

At 10:00pm, patients' vital signs were checked and recorded as indicated in the appendix, due medications were administered. Patient was put to sleep at 10:20pm.

Fourth, Day of Admission, (14Th November, 2022)

Miss E.A.A. woke up at 5:50am in the morning. She was assisted to perform proper personal hygiene when she woke up. She ate oat and bread as breakfast and verbalize that she could now eat well. At 6:00am, due medications were administered and vital signs were checked and recorded as indicated in the appendix.

At 6:50am, she took her breakfast which was porridge with koose.

At 9:45am, she was reviewed by Doctor on duty, which her plan was to continue treatment and a possible discharge the next day if her condition remains stable.

She ate rice and stew at 1:40pm with sliced water melon.

Patient 2:00pm vital signs were checked and recorded as in the appendix. Due medications were served.

Patient had an early bath at 5:40pm. She ate kenkey with stew and a glass of water as served.

At 6:00pm, her vitals were checked and recorded as in the appendix. Due medications were administered per treatment chart.

At 10:00pm, patients' vital signs were checked and recorded as indicated in the appendix, due medications were administered. Patient was put to sleep at 10:30pm.

Day of Discharge, (15Th November, 2022)

Patient woke up at 5:00am and on this very day she was much better than previous days. She took her bath as usual, brushed her teeth, took in millet porridge with bread and dinner.

At 6:00am vital signs monitored and recorded with normal recording as follows; pulse 96bpm, respiration 21cpm, blood pressure 123/75mmHg and with temperature of 36.2^{o}C.

At 7:30am, evaluation of set objective on 13th November, 2022 to set to help patient's appetite improve throughout period of hospitalization was fully met as evidenced by patient verbalizing that she has regain her appetite and nurse observing that patient was able to consume 800mls of her porridge served.

At 8:00am, patient was reviewed by the doctor on duty and her plan of care was to continue with old medications.

At 8:45am, evaluation of set objective on 12th November, 2022 to prevented from fluid and electrolyte volume imbalanced throughout the period of hospitalization was fully met as evidenced by, patient verbalising that she has regain her normal bowel pattern and nurse observing that patient is having good skin turgor.

At 09:00am, it was reviewed that patient and relatives were having inadequate knowledge about gastroenteritis, its causes, prognosis and prevention and a nursing diagnosis of Knowledge deficit related to inadequate information about diagnosis, treatment and prognosis of acute gastroenteritis. An objective was set for patient and relatives to gain knowledge about gastroenteritis within period of hospitalization and the following nursing intervention were carried out; they were reassured of adequate education on the condition, Miss E.A.A and the relatives were given adequate education on the condition, they were asked to state some causes of the condition and its prevention and were asked to ask questions bordering their minds and the questions were answered tactfully.

At 11:00am, evaluation of set objective on 15th November, 2022 objective set to enable patient and relatives gain adequate knowledge on gastroenteritis within an hour and half period was evaluated and was fully met as evidenced by; patient and family being able to provide correct answers to questions posed to them on the causes, management and prevention of gastroenteritis, nurse observing that patient and relatives practice knowledge gained on gastroenteritis.

At 11:30am she was then reviewed again by the doctor on duty and was ordered to be discharged which was around 11:40am after the doctor was satisfied with Miss E.A.A's health progress. This was documented into the admission and discharge (specifically) section on the

ward computer. I took her ordered medication such as Tab Metronidazole 400mg tds x 3days, Tab Ciprofloxacin 500mg bd x 5days from the ward pharmacy as ordered by the

Drugs taken from the ward pharmacy together with the old drugs, Magnesium trisilicate 15mls bd and Tab Paracetamol 1g tds x5 days were handed over to the patient's relatives and were educated on the drugs prior to discharge. Miss E.A.A and relatives were informed on the review date and were informed to always report to the hospital early at any time when feeling unwell and the need to not self-medicate.

Miss E.A.A was advised on the need to maintain personal hygiene and to avoid eating outside foods. They were then assisted to pack their belongings, were asked to go to the revenue department to settle all pending bills after which receipt was shown to confirm the payment. Her cannula was removed they thanked the Nurses and the Doctor on duty. They were accompanied to the hospital gate where they left the hospital with a taxi.

4.2 Preparation of Patient/Family For Discharge And Rehabilitation

Preparation of patient and relatives towards discharge begun on the day of admission to the day of admission. Miss E.A.A and her relatives were informed that the ward was a temporal place for her and so she would be discharged home as soon as she recovers. This was done to prevent over dependence on the health team after discharge. In this, Miss E.A.A's health status was assessed daily and compared with baseline data to ascertain the level of recovery.

Patient and relatives were educated on the cause, mode of transmission, clinical manifestation, treatments, complication and prevention of the gastroenteritis. They were then educated on the need to seek immediate medical attention when feeling unwell and when symptoms still persist, for treatment at the hospital, and were also educated on the need to maintain personal and environmental hygiene and avoid the intake of unhygienic food in order to break the chain of the transmission. Miss E.A.A was also encouraged on the need to take in well balanced meals

and have adequate rest in order to build up her immunity to help fight against infections to help improve her health.

On the 15th of November, 2022, being the day of discharge, the Doctor on duty prepared and signed for Miss E.A.A to be officially discharged home, and they were assisted to pack their belongings and since Miss E.A.A was in an MTN Ayo Recharge with Care beneficiary, all her hospital bills were cared for. They were informed on the date scheduled for the review and were educated to report on time. They were educated on how, when and route of the drugs to be taken home and patient was discharged from the ward and in the discharge section on the ward computer, state ward diary and discharge note done. Her linens were removed and decontaminated and together with the bed and locker. They then Thanked the Nurses and the Doctor on duty who accompanied them to the hospital gate where they took taxi to the house.

The first home visit was done when patient was on admission (2^{nd} day on hospitalization) on the 12^{th} of November, 2022 at Doctor Berko where patient resides. The purpose of this visit was to survey for any predisposing factors that might have contributed to her condition and to look for available resource in the house as well as in the community that can help in the speedy recovery of the patient.

4.3 Follow-Up/Home Visit and Continuity of Care

It is an essential element of the patient/family care study. The purpose of home visit in nursing is to give care to the sick with the view to teach a responsible family member to give the subsequent care, also to assess the living condition of the patient and his family and their health practices in order to provide the appropriate health teaching.

4.3.1. First Home Visit, 12^{Th} November, 2022

The aim of this home visit was basically to find out about the environment in which the family live, and also to help identify the possible health problems in the home environment and to

establish a link between the problems of my patient's condition and then to help remedy the situation through health education and also prepare the family for patient's discharge.

The first home visit came off when Miss E.A.A was at the ward on the 2nd day on 12th November, 2022 and I arrived in the house around 3:20pm.On arrival, the building was inspected and was painted with yellow paint with aluminium roofing. The mother gave me a seat to make myself comfortable and a water was also served to me. Inquiries regarding the state of Miss E.A.A's health in the house was made clear her illness.

It was observed that, sanitary conditions in the house were good but there was an opened dumping refuse. Mrs. F.M led me to their room which was single room self-contained in which the room was kept tidy and things well organized with windows well opened enhancing adequate ventilation. Patient's relative (mother) personal hygiene was also assessed and was on point as evidenced by how she was neatly dressed.

Education was given to Mrs. F.M on the need to possibly use well covered dustbin or to keep the dump well by constantly burning the rubbish to prevent flies from cross contaminating their foods and drinking water. Mrs. F.M was encouraged to continue the good habit with regards to the proper sanitary keeping in the environment. She was also reassured of competent health team and nursing care that is being given to Miss. E.A.A at the hospital which will aid in her speed recovery.

At 4:00pm, Mrs. F.M was thanked for her cooperation and the visitation for the day came to an end.

4.3.2. Second Home Visit, 20th November, 2022

The purpose of this visit was to assess the health of Miss E.A.A and her family and to see whether the education given during admission and first home visit were being followed.

The purpose of this second home visit was to find out how Miss E.A.A was doing and how she was going about her daily activities and it was done on the 20th of November, 2022 after Miss E.A.A had been discharged home.

On arrival at 3:00pm, Miss E.A.A was seen sitting under a tree in front of her building with one of her children and she was looking very cheerful and much healthy.

On observation and interaction with her after I was offered a seat, it was observed that Miss E.A.A's condition has improved speedily and it was as a result of patient's family compliance to the health education given and drug regimen including good personal and environmental hygiene, adequate rest, adherence to drug regimen and good family support. Additional health education was given to Miss. E.A.A on the need to seek immediate health care.

Miss. E.A.A was reminded of the date for review which was to be on the 21st of November, 2022. Miss. E.A.A was very happy and thankful, and she was informed that they will be accompanied to the hospital for the review, likewise they were appreciated for their patience with thanks.

Date of Review, 22St November, 2022

At 8:15am on the 22st of November, 2022, patient and Mrs. F.M were met at the hospital gate and were warmly welcomed. Her hospital card was taken to the record department and details were sent through digital means after which vital signs were checked at the Nurse station at the outpatient department and were recorded as; pulse 78bpm, respiration 16cpm, blood pressure 115/72mmHg and temperature 36.4^0C. Miss. E.A.A was then directed to Nurses room number two to meet the doctor on duty. On her turn, she was accompanied to see the doctor on duty.

During consultation with the doctor, patient did not mention any new complaint, and an education was given to her again on the need to maintain good personal and environmental hygiene, avoidance of buying an outside food, the need to take in well balanced meals and healthy drinking water and also prompt and immediate report to the facility when not feeling

well. After seeing the doctor, patient and mother Mrs. F.M were informed on the date for the 3rd home visit and were also pre-informed that, the visit would be carried with a purpose of handing her to a community Nurse for continuity of care in her area. They were accompanied to the hospital gate and were bid goodbye.

4.3.3 Third Home Visit, 24Th November, 2022

The main reason for conducting the third home visit was to assess the general condition of patient and family, reinforce the need to comply with treatment regimen and finally terminate care.

On visitation, patient and family were well doing and the visitation was made with the company of Registered General Nurse (RGN) who is a staff at Sunyani Municipal Hospital but in old Abesim (Nurse S) since Miss. E.A.A said she does not like to seek health care at the closest hospital (Doctor Berko) because of previous complication she encountered at the facility.

We were welcomed at the house and seats were also offered to make us comfortable and patient's health was greatly improved on observation. Patient was asked if she had encounter any complication and said no, and observations (assessment) was conducted on her and there was no sign of complication and was also looking very strong, healthy and good.

The nurse in Sunyani Municipal Hospital was introduced to Miss E.A.A and the family and they were informed that, she will be taking charge of the rest of the care and may make home visit anytime the need arises to make sure the good health status of her and the family is well maintained and they were also encouraged to give the Nurse their maximum cooperation.

They were encouraged to see immediate health care when feeling unwell and to practice good personal and environmental hygiene. Miss E.A.A and her family showed their gratitude for the selfless concern for their health through the home visit to me.

They were also thanked for their constant cooperation throughout the whole process and for allowing to build good therapeutic Nurse-Patient relationship. Miss E.A.A also showed her

appreciation for the care rendered to her and that of the family and wished us God's blessings. We then departed from them with a humble goodbye.

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO CLIENT AND FAMILY

5.0 Introduction

Evaluation is the final step of the nursing process which allows the nurse to determine the patient's response to the nursing interventions and the extent to which the objectives have been achieved (Hinkle & Cheever, 2018).

5.1 Statement of Evaluation

Evaluation is the final step of the nursing process which allows the nurse to determine the patient's response to the nursing interventions and the extent to which the objectives have been achieved (Hinkle & Cheever, 2018).

Miss E.A.A was admitted to the Females Medical Ward with the diagnosis of Gastroenteritis (acute) and all goals and objectives set were fully met. Below is the summary;

1. Patient's body temperature was reduced to normal (11th November, 2022)

It was found out on (11/11/2022) at 07:40pm, that patient had high body temperature (fever), a nursing diagnosis of hyperthermia (38.2^{O}C) related to inflammatory processes and released of bacteria toxins the stomach and intestinal mucosa. An objective was set to enable patient maintain his normal body temperature that is (36.8^{o}C-37.2^{o}C) within 4hours.The following nursing interventions were carried out; patient and relatives were reassured of that her body temperature will be normal, adequate room ventilation was ensured by opening nearby windows, she was tepid sponged to help cool down her body temperature Tablet Paracetamol 1gram was administered as prescribed and temperature was checked 5 minutes afterwards and read 36.4^{0}C, cold drinks and liberal fluids were to be served, temperature was checked every 4 hours or as appropriate and recorded. Goal was evaluated on 11th November, 2022 at 11:40pm

and was fully met as evidenced by Nurse recording body temperature of 36.4^{o} C and patient verbalized she is no more feeling warm to touch.

2. Patient and relatives were relieved from anxiety (12thNovember, 2022)

On 11th November, 2022 at 7:40pm, patient and relatives were observed to be anxious due to unknown outcome of the condition. An objective was set to relieve patient and relative from the anxiety within 24hours. The following interventions were set; patient and relatives were reassured of competent health team to allay their fears and anxiety, their level of anxiety was assessed using their facial expressions, all procedures were explained to patient and relatives to reduce the fears and anxiety, they were also encouraged to ask any questions bordering their minds and they were introduced to patients in the ward with same conditions who are recovering positively. Goals were evaluated on 12th November, 2022 at 7:40am and were fully met as patient and relatives were observed to have calm facial expression and were cooperating with care and patient and relatives verbalizing absence of the anxiety and they confirmed by verbalizing that they are no more feeling anxious.

3. Patient was relieved of abdominal pains (11th November, 2022).

On 11th November, 2022 at 07:45pm, patient gave a verbal complaint of abdominal pains and a nursing diagnosis of acute abdominal pains related to inflammatory process and increased peristalsis in gastrointestinal tract (intestine) was formulated and a goal was made to relieve patient of the abdominal pains within 48hours. The following interventions were carried out to meet the objective set; patient and relatives were reassured that the pain will subside in the course of treatment, the level of pain was assessed pain rating scale of 0 – 10, ward television was turned on to divert patient's mind from the pain, patient was allowed to assume a comfortable position to alleviate the pain, she was encouraged to verbalize her feelings about

the pain and prescribed tablet paracetamol 1gram, intravenous metronidazole 500mg and intravenous ciprofloxacin 400mg were served.

On 13th November, 2022 at 07:45pm, the objective that was set was evaluated and goal was fully met as it was evidenced by patient verbalizing relief of the abdominal pain and nurse observing that patient is having a calm and relaxed facial expression.

4. Patient prevented from fluid volume and electrolyte imbalance (15th November, 2022).

Assessment on the 12th November, 2022, patient complained of having diarrhoea (5 times) and so a nursing diagnosis of Risk for fluid volume and electrolyte imbalance (less than body requirement) related to diarrhoea as evidenced by passage of loose unformed stools 5 times a day was formulated and a goal to help patient to be relieved of diarrhoea and to maintain normal fluid and electrolytes within period of hospitalization was set. The following nursing interventions were carried out; patient and relatives were reassured of competent health team, patient was encouraged to take in adequate liberal fluids, patient was assessed for signs and symptoms of dehydration; patient was educated on fluid needs. Copious intake of fluid was encouraged, assessed, isotonic intravenous fluids were administered, and prescribed antibiotics were administered.

On 15th November, 2022 around 8:30am, the objective set to help patient maintain normal fluid volume and electrolyte balance throughout period of hospitalization was evaluated and was fully met as evidenced by, patient verbalising that she has regain her normal bowel pattern and nurse observing that patient is having good skin turgor.

5. Patient regained strength for her daily activities without assistance (13thNovember, 2022).

On 12th November, 2022 around 08:45am, patient gave a verbal complaint of generalized body weakness so a nursing diagnosis of Activity intolerance related to weakness as evidenced by

inability to perform activities of daily living such grooming self was formulated and a goal was made to help patient regain strength for his daily activities without assistance within 24hours. The following interventions were carried out to meet the objective set; patient and relatives were reassured that she will regain her strength to carry her daily activities, patient was assisted to perform self-care activities like grooming and getting out from bed, she was encouraged to do minimal turns in bed to enhance adequate circulation, she was encouraged to do active exercises that she can tolerate like stretching so that patient does not injure or over stress herself, patient was encouraged to take adequate rest to conserve enough energy to carry on activities and tablet paracetamol 1gram, tablet metronidazole 400mg and tablet ciprofloxacin 500mg were served.

On 13th November, 2022 at 08:45am, the objective was evaluated and goal was fully met as it was evidenced by patient verbalizing that she no longer has any feeling of bodily weakness and nurse observing that patient is performing self-care activities like bathing, grooming and getting dressed unassisted.

6. Patient's appetite improved (15th November,2022)

On 15th November, 2022 around 07:30am, patient complained of loss of appetite and a nursing diagnosis of risk for nutritional imbalance (less than body requirement) related to loss of appetite was formulated for patient and a goal was set to help patient's appetite improve throughout period of hospitalization.

The following nursing interventions were made; patient was reassured that her appetite will improve, diets were planned with patient and relatives to know her likes and dislikes, she was encouraged to perform oral toileting twice daily to stimulate her appetite, all nauseating items were removed from her bedside, her favouriate meals were served attractively to stimulate her

appetite and she was encouraged to eat in bit but at a regular interval to enhance her urge to eat.

On 15th November, 2022 at 07:30am an evaluation was made on the objectives set and goals was fully met as evidenced by patient verbalizing that she has regain her appetite and nurse observing that patient was able to consume 500mls of her porridge served.

7. Patient/family gained knowledge on Gastroenteritis (15th November,2022)

On 15th November, 2022 at 09:00am patient and relatives were engaged in an interaction and it was realized that patient and relatives had less knowledge on gastroenteritis. The nursing diagnosis of Knowledge deficit related to inadequate information about the cause, management and prevention of the condition (gastroenteritis) was formulated and a goal was set to make patient and relative gain adequate information about the condition with an hour and half period. Interventions carried out were; patient and family were reassured that they will gain adequate information about the condition, rapport established with them, their knowledge on his condition was assessed, the education was made using language that patient and relatives easily understand (twi), patient and family were informed about ways of preventing the symptoms and some management for the disease, patient and family were allowed to ask questions for clarifications on issues about the disease bothering their minds and , all questions were answered in simple, plain and clear language without the use of professional jargons. Patient and family were asked to give a feedback on what they heard and all procedures carried out on patient were document in the nurses' note accordingly.

On 15th November, 2022 at 11:00am the objective set to enable patient and relatives gain adequate knowledge on gastroenteritis within an hour and half period was evaluated and was fully met as evidenced by; patient and family being able to provide correct answers to questions

posed to them on the causes, management and prevention of gastroenteritis, nurse observing that patient and relatives practice knowledge gained on gastroenteritis.

5.2 Amendment of Nursing Care Plan

All the health care problems which were exhibited by Miss E.A.A were intensively managed and due to the quality nursing care, effective medical treatment and good cooperation from Miss E.A.A and her family, all the set goals were fully met. The care rendered were very successful as Miss E.A.A fully recovered from the health problems she presented without any complications too. Since there were no unmet goals, amendment was also not needed

5.3 Termination of Care

Termination of care begun from the very day of admission till day of last home visit to Miss E.A.A and her family and the process was conducted gradually in order to prevent separation anxiety and to enhance adequate trust and cooperation. From the day of admission, Miss E.A.A and her relatives were informed that, their stay in the hospital was temporal and after her recovery from the illness, they would be discharged home to continue with their normal activities. Miss E.A.A was discharged on 15th of November, 2022 and client and family did not show any anxiety as they were to be discharged home. Three (3) home visits were done and on the last home visit which took place on the 24th of November, 2022, the Student Nurse handed client and family over to a staff Nurse at Sunyani Municipal Hospital who resides in old Abesim for continuity of care, they were thanked by the Student Nurse for their constant cooperation.

They were also encountered to practice the acquired knowledge through the education given to break the chain of the mode of transmission of the condition (Gastroenteritis) in order to prevent occurrence. Miss E.A.A and the family expressed their gratitude for the care rendered to them.

CHAPTER SIX

SUMMARY AND CONCLUSION OF THE CARE RENDERED

6.0 Introduction

Summary is a comprehensive and usually brief abstract, recapitulation, or compendium of previously stated facts or statements. Conclusion is something that you decide when you have thought about all the information connected with the situation (Weller, 2016). This is the last step of the patient/family care study which entails the student's personal appreciation of the therapeutic relationship with the patient as well as the use of the nursing process.

6.1 Summary

Miss E.A.A was admitted into Females medical ward of the Sunyani Municipal Hospital on the 11th of November, 2022 at 08:15am through the accident and emergency unit with the diagnosis of acute gastroenteritis. Miss E.A.A presented signs and symptoms such as; loss of appetite, diarrhoea, general body pains, abdominal pains.

All appropriate and necessary information were obtained from client and her mother, Mrs. F.M Her health problems were identified, there was formulation of appreciate nursing diagnosis, objectives were set, an individualized care plan drawn and expected outcome of these intervention resulted to meeting of all the objectives set, aiding in the massive improvement of client's health and therefore leading to her discharge on the 15th of November, 2022 at 11:40am.

Specific and individual nursing care were rendered as proper measures were taken to manage the health problem using the nursing process.

A nursing care problem was drawn and put into action for the effective and efficient individualized client and family care and these care were rendered based on problems Miss E.A.A presented, specific and respective nursing diagnosis were formulated based on the

identified problems with appropriate nursing interventions being put into action based on the objectives. All set goals achieved their purposes after evaluation.

There were three home visits carried out on the 12th, 20th and 24th November, 2022 to find out more about client's environment and to give the necessary health education when necessary. All the hospitalization periods through to the climax of the home visits, Miss E.A.A and her family were given intensive health education on gastroenteritis, including causes, mode of transmission, signs and symptoms, prevention and its complications when not treated or properly treated.

They were more enlightened on the need to maintain a healthy lifestyle, good personal and environmental hygiene and the need to eat healthy and proper care of their refuse dump.

Miss E.A.A and her family were thanked for their maximum cooperation and the kind reception they shown throughout the care and termination of the care was done on the 24th of November, 2022.

6.2 Conclusion

The benefit of the client/family care study to the Student Nurse is very beneficial and essential. This study has helped me to apply the theoretical knowledge of nursing and related courses acquired in the classroom into the clinical and community setting as a whole.

During the study, it helped me to improve my knowledge in nursing research and report writing and also, it has enlightened me more on gastroenteritis and its management.

This aspect of nursing is somehow challenging but is a worthy professional and a good academic exercise.

Client/family care study is an effective and holistic approach to the nursing of the client and so nurses must be encouraged to practice it in the management and care of their client in the clinical setting.

6.3 Recommendation

Due to the countless knowledge I have gain throughout the period of the patient/family care study, I recommend that; there should be holistic and individualized care for every patient since each one of them is unique in his or her own way and also adoption of intensive nursing care should be used in the clinical field in caring for the patient to prevent occurrence of diseases and to decrease mortality rate.

Also, I therefore recommend that, all nursing students should be given the chance to participate in the patient/family care study in order to equip them adequately and to help them render good nursing at the field of work.

APPENDIX

The following are vital signs carried out on Miss E.A.A throughout period of hospitalization.

Table 6. 1: vital signs chart of Miss. E.A.A

Date	**Time**	**Temperature (ºC)**	**Pulse (bpm)**	**Respiration (cpm)**	**Blood Pressure (MmHg)**
11/11/22	7:00pm	38.2ºC	92bpm	19cpm	130/92mmHg
	10:00pm	36.8ºC	90bpm	18cpm	121/83mmHg
12/11/22	6:00am	36.7ºC	85bpm	21cpm	120/60mmHg
	2:00pm	36.2ºC	98bpm	20cpm	115/65mmHg
	6:00pm	37.0ºC	91bpm	17cpm	120/70mmHg
	10:00pm	36.3ºC	84bpm	22cpm	110/90mmHg
13/11/22	6:00am	36.5ºC	94bpm	16cpm	110/86mmHg
	2:00pm	36.3ºC	83bpm	23cpm	120/65mmHg
	6:00pm	36.2ºC	75bpm	20cpm	115/70mmHg
	10:00pm	36.4ºC	89bpm	22cpm	120/90mmHg

Table 6.1: vital signs chart of Miss. E.A.A Cont'd…

Date	Time	Temperature (°C)	Pulse (bpm)	Respiration (cpm)	Blood Pressure (MmHg)
14/11/22	6:00am	36.2°C	90bpm	22cpm	120/80mmHg
	2:00am	36.7°C	95bpm	20cpm	114/62mmHg
	6:00pm	36.5°C	85bpm	19cpm	125/90mmHg
	10:00pm	36.8°C	92bpm	23cpm	110/82mmHg
15/11/22	6:00am	36.7°C	96bpm	21cpm	123/75mmHg
	10:00am	36.2°C	92bpm	19cpm	116/63mmHg

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DATE…….

THE SUPERVISOR

NAME: MR. JOSEPH APPIAH

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DATE…….

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DATE…….

THE PRINCIPAL, HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

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