The Biopsychosocial and Educational Needs of patient With Hepatic Encephalopathy

Thesis

Submitted in Partial Fulfillment of the Master Degree in Medical Surgical Nursing (Critical Care)

By

Basma Abd El-Raouf Khalil

B.Sc. Nursing

Faculty of Nursing
Ain Shams University
2020

The Biopsychosocial and Educational Needs of Patient with Hepatic Encephalopathy

Thesis

Submitted in Partial Fulfillment of the Master Degree in Medical Surgical Nursing (Critical Care)

Supervised by

Prof. Sahar Yassien Mohammad

Professor of Medical - Surgical Nursing
Faculty of Nursing- Ain Shams University

Assist. Prof. Mona Nadr Ebraheim

Assistant Professor of Medical - Surgical Nursing
Faculty of Nursing - Ain Shams University

Faculty of Nursing
Ain Shams University
2020

Acknowledgments

First and forever, thanks to ***Allah****, Almighty for giving me the strength and faith to complete my thesis and for everything else.*

I would like to express my deepest gratitude and appreciation to ***Prof. Sahar Yassien Mohammad,*** *Professor of Medical - Surgical Nursing, Faculty of Nursing- Ain Shams University, for her generous support and guidance to help me to put this work in its best form and for being an ideal model of a professor to follow. It was indeed an honor to work under her supervision.*

It is my pleasure to express my unlimited gratitude and deepest thanks to ***Dr. Mona Nadr Ebrahim,*** *Assistant Professor of Medical - Surgical Nursing, Faculty of Nursing - Ain Shams University for her kind assistance, faithful supervision, precious help, valuable advice and guidance she offered me to complete this study. No words of gratitude can equal her help and support.*

I feel greatly indebted to all my family without their great effort, encouragement, help and support this work could not become.

Special thanks to all caregivers and their patients who participated in this study wishing them good health and welfare.

Finally I would like to thank my professors, my colleges, all nurses and everyone who directly or indirectly helped me to accomplish this study.

Basma Abd El-Raouf Khalil

List of Contents

List of Tables

List of Figures

List of Abbreviations

Abb.	Full Term
BPS	Biopsy chosocial
CHE	Covert hepatic encephalopathy
Cr	Creatinine
CT	Computerized tomography
EEG	Electro encephalographic
GCS	Glasgow coma scale
GI	Gastrointestinal
GIT	Gastro intestinal tract
HE	Hepatic encephalopathy
HS	High significance
ICI	Inhibitory control test
LOLA	L-ornithine L-asparate
MHE	Minimal hepatic encephalopathy
MRI	Magnetic resonance imaging
N	Number of patient
NS	No significance
OHE	Overt hepatic encephalopathy
PRES	Psychometric hepatic encephalopathy score
PSE	Porto systemic encephalopathy
PSEST	Porto systemic encephalopathy syndrome test
Rs	Spearmas rank correlation coefficient
SBP	Spontaneous bacterial Peritonitis
SD	Standard deviation
TIPSS	Trans-Jagular intrahepatic porto systemic shunt

Abstract

Hepatic encephalopathy is defined as a spectrum of neuropsychiatric abnormalities in patients with liver dysfunction, after exclusion of brain disease. HE is the occurrence of confusion, altered level of consciousness and coma as a result of liver failure. **Aim of the study**: Assess the biosychosocio-educational needs of patient with hepatic encephalopathy; **Research design**: exploratory descriptive design was utilized to meet the aim of this study. **Setting:** This study conducted at Menouf fever, Gastro-entrology and Hepatology hospital at intensive care unit. **Subjects:** A purposive sample including 80 patients. **Tools of data collection:** 1. Patients interview questionnaire; **Part I:** concerned with demographic data **Part II:** concerned with patient and family present and past medical history and family history. **Part III**: concerned with assessment of severity of Cirrhosis. **Part IV:** concerned with assessment of patients knowledge. 2. Patients assessment record; 3. Hospital anxiety and depression scale; 4. Social dysfunction scale. **Results**: The study showed that the common systemic need among studied patient were respiratory system disorder, gastrointestinal system disorder followed by rest and sleep alteration. Regarding psychological needs it was found that 33.8% of patient under study had severe depression. **Conclusion**: this study concluded that regarding social need it was found that about third of patient under study had severe social dysfunction/ **Recommendation:** The study recommended that supportive care services in any hospital care setting should be directed toward meeting psychosocial needs of patients with hepatic encephalopathy

Keywords: *Biopsychosocial, Hepatic encephalopathy, liver cirrhosis*

Introduction

Hepatic Encephalopathy (HE) is a syndrome observed in patients with cirrhosis. HE is defined as a spectrum of neuropsychiatric abnormalities in patients with liver dysfunction, after exclusion of brain disease. HE is the occurrence of confusion, altered level of consciousness and coma as a result of liver failure. In the advanced stages it is called hepatic coma or coma hepaticum. It may ultimately lead to death ***(Wolf, 2017).***

All chronic liver diseases stimulate a degree of repetitive hepatocyte injury that alters the normal liver architecture and ends in hepatic encephalopathy. Hepatic encephalopathy and hepatocellular carcinoma secondary to liver cirrhosis are a major public health burden, reporting increasing mortality and morbidity globally ***(Canadian Liver Foundation, 2015).***

Physiological changes trigger the development of physical signs and symptoms and impact on the psychological wellbeing of the patient with hepatic encephalopathy. The physical signs and symptoms include esophageal varices, ascites, jaundice, irregular sleep patterns, muscle cramps, pruritus, fatigue, impaired mobility,

breathlessness, abdominal discomfort, gastrointestinal symptoms, change of body image and pitting edema ***(Alsebaey, 2015).***

Psychological symptoms include stress, depression and anxiety. Living with liver cirrhosis complicated with hepatic encephalopathy has a marked impact on the quality of life of the individual. Health-related quality of life is the individual's perception of their physical, cognitive, emotional and social functioning. Studies report that physical and psychological factors affect the patients with hepatic encephalopathy which can be problematic and debilitating. There is strong evidence which indicates that disease severity is associated with an impairment of the patient's physical and psychological needs ***(Brandstatter & Schulze, 2016).***

Despite the clear relationship between physiological, psychological needs and severity of disease. The systematic review will therefore identify the best available evidence related to the impact of physical, psychological and physiological factors on the health-related quality of life of adult patients with hepatic encephalopatly ***(Brandstatter & Schulze, 2016).***

Changes in lifestyle caused by hepatic encephalopathy favor the appearance of subjective difficulties, such as hopelessness, anxiety, low self-esteem, among others. It requires the reorganization of the personal, family, and social dynamics, requiring the understanding and support of those who deal directly with this patient, including their family, friends and health care professionals who assist them ***(Mohamed, Pisipati, Lee, Goltz & Latini, 2016).***

Significance of study

The exact incidence of hepatic encephalopathy in the general population is unknown .It affects male and female in equal number and can occur in individuals of any age who have acute or chronic liver disease. Approximately 24-53 percent of individuals whose liver is by passed by portosystemic shunt develop HE and more than 40% of people with cirrhosis develop HE ***(Ferri & Fred, 2017)***. More than half of those with cirrhosis and significant HE live less than a year. In those who are able to get a liver transplant, the risk of death is less than 30% over the subsequent five years. The condition has been described since at least 1860 ***(Wijdicks, 2016)***.

Biopsychosocial assessment is comprehensive evaluation of an individual patient's physical, psychological and social. So assessment of biopsychosocial need is an important step to identify anticipating problems that facing patients with hepatic encephalopatly, creating a health care plan and facilitate recovery that is crucial to assess biopsychosocial needs for those critical patients.

Aim of the Study

This study Aim to:

Assess the biosychosocio-educational needs of patient with hepatic encephalopathy through:

- Assessing physical ,psychological ,social and educational needs of patient with hepatic encephalopathy.

Research question:

The current study answered the following question:

- What are physical ,psychological ,social and educational needs of patient with hepatic encephalopathy ?

Overview about Anatomy and Physiology of the liver

The liver is a vital organ present in the body which play a major role in metabolism and has a number of function in the body, including glycogen storage, decomposition of red blood cells, plasma protein synthesis, hormone production and detoxification. The liver is a reddish, brown wedge-shaped organ with four lobes of un equal size and shape. A human liver normally weighs 1.44-1.66 kg and has a width of about 15 cm which located in the right upper quadrant of the a bdominal cavity. It rest just below the diaphragm, to the right of the stomach and over lies the gallbladder ***(Renz, Kinkhabwala & Milan, 2014).***

The liver receives about 1.5 L.min blood supply and is responsible for over 20% of the body's resting oxygen consumption. It has a dual vascular supply from the portal vein and the hepatic artery. The hepatic artery is a high pressure and high resistance system which deliver 30% of total hepatic blood flow directly from the aorta and contributes to about 50% of total hepatic oxygen supply. The portal vein is a valveless system, bringing deoxygenated