Factors Affecting Adherence of Patients with viral Hepatitis C Toward Therapeutic Regimen

Thesis

Submitted in Partial Fulfillment of the Requirements of Master Degree in Nursing Science (Medical Surgical Nursing)

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By
Sahar Ahmed Ali
B.Sc. Nursing

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وقُلِ اعْمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ

صدق الله العظيم

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Sahar Ahmed

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List of Abbreviations

ALK : Alkaline phosphatase

ALT : Alanine aminotransferase test

AST : Aspartate aminotransferase test

bDNA : Branched-chained DNA test

Biotherapy :Combines peg interferon and Ribavirin

EIAs :Enzyme immuno-assays test

EVR :Early virologic response

GGT : Gamma-glutamy trans- peptidase

HCV : Hepatitis C virus

LT : Liver transplant

NCCAM : National Center for Complementary and Alternative Medicine

NIH : National Institutes of Health

PCR : Polymerase chain reaction test

PEG-INF : Pegylated Interferon

RIBA : Recombinant immunoblot assay test

RBV : Ribavirin

SVR : Sustained virologic response

Tripletherapy:Ribavirin+pegylated Interferon+telaprevir

Abstract

Background: The current standard-of-care treatments for chronic hepatitis C, based on a combination of peginterferon and ribavirine. Adherence is a crucial point for. The objective of this study was to assess factors that affect adherence in hepatitis-C patients toward therapeutic regimen. **Methods**: A descriptive exploratory study was conducted on 100 HCV-infected individuals undergoing treatment therapy, **in** interferon outpatient clinic, Beni Suef government hospital. Using **Tools** consist of three parts:**1.** Patient interview questionnaire sheet to assess socio-demographic characteristics and patients medical history **II.** Patient's adherence assessment sheet: including **Morisky Medication** Adherence Scale (MMAS) to assess the patient's adherence toward medication, and developed sheet to assess adherence to follow up, diet and exercise **III.**Factors affecting patient's adherence questionnaire sheet: to assess factors affecting patient's adherence toward therapeutic regimen. **Results**:There was (30%) total adherence level to therapeutic regimen for studied subject versus (70%) non adherence level. there are positive statistically significant relations between adherence level and Patient's beliefs while, negative relations were found between adherence and socio-demographic at item of level of education, monthly income for therapy costs and home care provider, patients centered factor which include(Patients psychological status, Patient's motivation, patient's knowledge), socio-economic factorsandtherapy-related factor and Health care system factor. **Conclusion**:there are several factors that seem to influence adherence of hepatitis C patients toward therapeutic regimen, this factors varied in its effect, one of them had positive effect like patient beliefs while many have negative effect like patient factor, therapyrelated factor, social factor economic factorand heath care system factor. **This study recommended that**; Providers should implement strategies tailored to each patient's needs to help increase adherence or maintain high levels of antiviral adherence during HCV treatment. Health teaching program for hepatitis c patients and their family about concept of hepatitis c and its management.

<u>Keywords:</u> Hepatitis C, adherence, therapeutic regimen:

Introduction

According to recent estimates, more than 185 million people around the world have been infected with the hepatitis C virus (HCV), of whom350000 die each year. One third of those who become chronically infected are predicted to develop liver cirrhosis or hepatocellular carcinoma **(WHO, 2014).**

Hepatitis C virus, or HCV, is a blood-borne virus that was named non-A/non-B hepatitis; HCV enters the body through direct exposure to blood or contaminated body fluids. The virus attacks cells in the liver, where it multiplies (replicates).HCV causes liver inflammation, kills liver cells, and can lead to buildup of fibrous (scar) tissue in the liver which can eventually lead to cirrhosis **(Mauss et al., 2014).**

The majority of newly infected patients will be asymptomatic and have a clinically non-apparent or mild course. The risk of chronic HCV infection is high, about75% of patients with acute hepatitis C do not eliminate HCV RNA and progress to chronic infection **(Mauss et al., 2014).**

Early diagnosis and treatment of chronic HCV can reduce hepatic inflammation, prevent progression to fibrosis, cirrhosis, and hepatocellular carcinoma by eliminating the virus in chronically infected patients and control the spread of disease **(Mitra et al., 2010).**

The current standard-of-care treatment for chronic hepatitis C has been based on a biotherapy that combiningpeg interferon (PEG-IFN)-2a or -2b and ribavirin (RBV) for 24–48 weeks. Since 2011, a triple therapy combining PEG-IFN/RBV and telaprevir has become the new standard of care for treatment of genotype 1 HCV infection and is associated with a30% increase in sustained virological response. Despite this marked improvement, there are still many treatment failures

and unmet needs. The major cause of therapeutic failures with biotherapy and triple therapy is ascribed to poor adherence**(Larrey, Ripaul&Pageaux, 2014)**.

Adherence: is the extent to which a person's behavior-taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider **(WHO, 2013).**

Adherence to hepatitis c therapy is one of the most important factors associated with the success of antiviral treatment. The definition of adherence used here is the "80/80 rule", that is patients who receive more than 80% of the medication and are treated for more than 80% of the planned duration of treatment are considered adherents**(Mauss et al., 2014).**

The critical factors that influence adherence to a drug regimen fall into four main groups: Patient factors; Age, literacy, physical Impairment, social support. Medication regimen: Dosing complexity; side effects; number of medications in a treatment regimen. Patient-health care provider relationship: Closeness of relationship, provider-patient communication skills. System of care: Access to healthcare; continuity of care, medication costs **(LO Re, 2013)**.

Operational definition: In this respect present study planned to assess adherence to medication, follow up, diet and exercise, then to identify factors affecting adherence which are classified into the following factors:Patient factors; (psychological, beliefs, motivation, smoking hazard, and educational factor), Therapy-related factors, Socio-economic factors, health care system related factors and disease related factors.

Enrichment of patients with nursing intervention and knowledge about chronic hepatitis C, its treatment and

management of Interferon related side effects seemed to have positive effects on improving patients' knowledge about diseases and managing side effects of treatment and self-care modalities that are reflected by improvement in laboratory findings, vital signs, patients complains, anxiety and fatigue level**(Mohsen et al., 2011)**.

Significance of the study:

Hepatitis C virus (HCV) infection is a major public health burden in Egypt, Estimates for prevalence arebased upon data reported from the2008 Egypt Demographic and Health Survey (EDH) where seroprevalence and viraemia are estimated 14.7% for individuals aged 15–59 years. There is still evidence of high levels of ongoing HCV transmission with high prevalence observed among young individual shows that an estimated 168, 000new infections occurred in 2013, of which 102, 000 went on to have chronic hepatitis C **(Waked et al, 2014)**

Facing this problem the Ministry of Health in Egypt has embarked on a national treatment program for patients with chronic HCV infection since 2006, where all eligible patients are treated with PEG-RBV. Annually, 40, 000–50, 000 patients have been treated and by 2013, 350, 000 patients have received therapy in this program **(Waked et al., 2014).**

Non-adherence to prescribed treatment regimens for hepatitis C viral (HCV) infection has been a major impediment to treatment success. For these reasons, the aim of this study was to evaluate factor affecting patients' adherence toward therapeutic regimen.

Aim of the Study

The aim of this study is to identify factors affectingadherence of patients with hepatitis Cvirus toward therapeutic regimen.

Research question:

1. What are the factors affecting adherence toward therapeutic regimen for patients hepatitis c virus?