

**Biopsychosocial needs of patient after  
Liver transplantation during  
follow up period**

*Thesis*

*Submitted for Partial Fulfillment of Master Degree  
in "Medical Surgical Nursing "Critical Care"*

*By*

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## **Biopsychosocial needs of patient after liver transplantation during follow up period**

### **Abstract**

Liver transplantation (LT) has been widely accepted as the standard treatment for patients with end-stage liver disease and unrespectable hepatocellular carcinoma (HCC). **The aim** of this study was to assess patient's biopsychosocial needs as regard liver transplantation during follow up period. **Design:** The study design was descriptive design. **Setting:** The present study was conducted at liver transplantation outpatient clinic in National Hepatology and Tropical Medicine Research Institute. **Sample:** a purposive sample of 30 adult patients, their age 18-55ys, of both sexes, and follow up period start from one week after discharge. **Tools:** 4 tools were used; 1-An interviewing questionnaire which includes: demographic characteristics of the studied patients and their medical history, 3-Patient's biopsychosocial needs assessment questionnaire for patients post LT, 2-Patient's structured health assessment tool for patients post LT during follow up, and 4- Factors affecting patient's follow up post LT. **Result:** It was found that, sixty three percent of the studied subjects their highest needs were social needs while fifty percent of the study subjects their highest needs were physical needs. Also the finding of the study revealed that thirty six of the studied subjects had psychological needs. **Conclusion:** The highest needs of patients after liver transplantation during follow up period were the social needs followed by physical needs and psychological needs. Also, psychological patient related factors were the highest factors affecting the patients during follow up period after liver transplantation followed by financial patient related factors. There was statistically significant relation between patient's biopsychosocial needs and their age and income. **Recommendation:** The study recommended, providing discharge plan for recipient of liver transplantation include: increasing patients' and family awareness through more explanation about liver transplantation, recovery, return to their occupational activities and coping strategies in working sites, healthy life style behavior.

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**Keywords:** Biopsychosocial needs, Factors, Follow up, Liver transplantation.

## List of Abbreviations

<b>Abb.</b>	<b>Meaning</b>
<b>ALF</b> .....	Acute Liver Failure
<b>CMV</b> .....	Cytomegalovirus
<b>CNI</b> .....	Calcineurin Inhibitors
<b>COPD</b> .....	Chronic Obstructive Pulmonary disease
<b>CsA</b> .....	Cyclosporine- A
<b>ESLD</b> .....	End Stage Liver Disease
<b>GFR</b> .....	Glomerular Filtration Rate
<b>GIS</b> .....	Gastro Intestinal System
<b>HCC</b> .....	Hepato-Cellular Carcinoma
<b>HIV</b> .....	Human Immunodeficiency Virus
<b>HVC</b> .....	Hepatitis C virus
<b>ICU</b> .....	Intensive Care Unit
<b>IS</b> .....	Immunosuppression
<b>IUD</b> .....	Intra Uterus Device
<b>LT</b> .....	Liver Transplantation
<b>MTOR</b> .....	Mammalian Target of Rapamycin
<b>NASH</b> .....	Non-alcoholic Fatty Liver Disease

**NHTMRI** ..National Hepatology and Tropical Medicine  
Research Institute

**NPO**..... Nothing Per Mouth

**OLT**..... Orthotropic liver transplant

**TAC**..... Tacrolimus

**UNOS** ..... United Network for Organ Sharing

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## **INTRODUCTION**

Egypt has high prevalence of hepatitis C virus (HCV) infection. It is estimated that 90% of cases of HCV in Egypt are infected by genotype IV. The high prevalence of HCV infection has led to increasing numbers of Egyptian patients suffering from chronic liver disease, cirrhosis, and hepatocellular carcinoma; all are associated with high morbidity and mortality **(El-Gazzaz & El-Ellemi 2010)**.

The high prevalence of chronic liver disease in Egypt has led to increasing numbers of Egyptian patients suffering from end stage liver disease. Despite significant improvement in the medical management of complications of cirrhosis, patients still suffer from reduced quality of life and must confront the fact that their disease will inevitably progress to liver failure and death. Liver transplantation (LT) is the most effective intervention that can increase patient survival **(El- Gamal, Morsy, Ismail & El-Shazly, 2013)**.

Liver transplantation (LT) represents the only chance of cure and long-term survival as a treatment of irreversible liver diseases and acute liver failure. The rates of success and survival have increased from 30% in the 1970s to almost 80% **(Masala et al., 2012)**. In less than 30 years, it has been rapidly developed from a highly experimental and

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## *Introduction*

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controversial procedure to one of the most successful stories in medicine. It represents a complex surgical procedure, which require removal of a diseased or injured liver and replace it with a healthy whole liver or a segment of a liver from another person, called a donor (**Lai, 2010, Lesurtel & Clavien, 2011**).

The outcomes after LT have shown consistent improvement in the recent years. One-year patient and graft survival rates are 89.4% and 86.4%, respectively with cadaveric donor, and slightly higher at 91% and 86.8% with live donor (**Schiff, Maddrey, & Sorrell, 2012**). The major reasons for this dramatic increase include refined surgical and preservation techniques, better immunosuppressive protocols, more effective treatment of infections, and improved care during the critical perioperative period (**Diensta & Cosimi, 2012**).

Patient and family education is a key element in the care of liver transplantation patients. Educational needs appear as soon as the patient becomes a potential candidate for a transplant and the questions that are raised include the actual procedure, its possible sequel, the course of treatment and long-term quality of life concerns. Teaching should begin before or at the start of the pre-transplant work-up and it should continue up to the time of discharge (**Togashi, Sugawara & Akamatus, 2013**).

**Significance of the study:**

The one year survival rate after liver transplantation is about 90% for patients living at home and about 60% for those who are critically ill at the time of the surgery. At five years, the survival rate is about 80%. Survival rates are improving with the use of better immunosuppressive medications and more experience with the procedure **(Guillen, Black, Thomas & McNamara 2014)**.

The number of the patients who received liver transplantation were 105 patients at Gastrointestinal Tract Hospital affiliated to Mansoura University during year 2014**(Abdel-Ghany, Soliman & Abdel-Raouf, 2016)**.

The researcher selected the institute as it is a central institute in Cairo governorate for treatment of liver disease in Egypt and it provides the optimal and high quality care for patients with liver disease. Also, it provides new research in different specialty to help the patients with liver diseases in Egypt and it aims to be the first reference in Egypt for treatment of liver viruses.

## **AIM OF THE STUDY**

This study aimed to assess patient's biopsychosocial needs as regards liver transplantation during follow up period through the following:

1. Assessing patient's needs during follow up period.
2. Assessing factors affecting patient's follow up period.