

Assessment of Nutrition Training of the Healthcare Providers for Chronic Liver Disease Patients at Kasr El Aini Hospital

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

" وَقُلْ رَبِّ زِدْنِي عِلْمًا "

صَدَقَ اللَّهُ الْعَظِيمُ

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*Fayrouz El Aguizy,
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Abstract

Background: In Egypt, digestive disorders including liver cirrhosis are now the second main leading cause of total disease burden (10%). The prevalence of malnutrition varies; from 20% in compensated liver disease to more than 80% in decompensated disease. Factors as frequent hospitalizations, overzealous diet therapy, and “hospital food”. Studies indicate that physicians have little knowledge of nutrition. Nutrition education among residents in training is at a critical juncture. There is a general lack of a unified curriculum, nutrition physician mentors, and a failure to properly train physicians about nutrition.

Aim of the work: Enhance the quality of management offered to chronic liver disease (CLD) patients at Kasr El Aini Educational Hospitals.

Subjects and Methods: This study was conducted in the internal medicine hospital of Kasr el Aini educational hospitals on 4 groups of participants: 45 resident physicians, 21 house officers, 10 nutrition supervisors and a total of 212 of the inpatients (group A, 112 patients and group B , 100 patients).

Results: More than 95% of the patients sought medical follow up for their medical conditions. 40% of the residents admitted their poor nutritional knowledge and referred to it as the main cause of deficient instructions to the patients. The mean nutritional knowledge score of the residents was $36.8\% \pm 17.4\%$ (before the intervention). The source of knowledge for those residents was the senior resident (and occasionally senior staff) in more than 70% of them as opposed to only 25% of the house officers. The difference was statistically significant. Low protein diet was the most common dietary regimen prescribed by all the physicians study with no statistically significant differences between them. There were also no statistically significant differences between the nutritional knowledge scores of the residents who completed the program and those who were excluded. Direct evaluation of the intervention took place by the residents' post test. The mean nutrition knowledge score of the residents' post-test was $94\% \pm 6.1\%$ which was significantly higher than the pre-test ($P < 0.001$). The mean score percent change was $276.8\% \pm 311.6\%$. Indirect evaluation of the intervention was through interviewing an independent sample of patients (group B). The results showed a mean nutrition knowledge score of $62.7\% \pm 11.8\%$. The increase from group A results was statistically significant.

Conclusion: The nutrition knowledge of the resident physicians was markedly defective. The percentage of residents following the recent guidelines in dietary recommendations for CLD patients were few. Promising results could be attained from interventions attempting to upgrade the residents' knowledge.

Key words:

Assessment – Nutrition education – Training – Chronic liver diseases (CLD).

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List of Abbreviations

- AAA: aromatic amino acids.
- ADA: American Dietetic Association.
- AGA: American Gastro-enterology Association.
- AIH: auto-immune hepatitis.
- AMDR: acceptable macronutrient distribution range.
- ASH: alcoholic steatohepatitis.
- BCAA: branched-chain amino acids.
- CLD: chronic liver disease.
- ESLD: end-stage liver disease.
- ESPEN: European Society for Parenteral and Enteral Nutrition.
- FAO: Food and Agriculture Organization.
- FELANPE: Latin American Federation of Parenteral and Enteral Nutrition.
- GBD: Global Burden of Disease.
- HBsAg: hepatitis B surface antigen.
- HBV: Hepatitis B Virus.
- HCC: hepato-cellular carcinoma.
- HCV: Hepatitis C Virus.
- HE: hepatic encephalopathy.
- HPHC: high protein high calorie.
- IPNEC: Intersociety Professional Nutrition Education Consortium.
- MCT: medium chain triglycerides.
- MELD: model of end stage liver disease.
- MEOS: microsomal ethanol-oxidizing system.
- MHE: minimal hepatic encephalopathy.
- NAFLD: nonalcoholic fatty liver disease.
- NAS: National Academy of Sciences.
- NASH: Non-Alcoholic Steato-Hepatitis.
- NCCVH: National Committee for the Control of Viral Hepatitis.

- NEPP: Nutrition Education Practicing Physicians.
- NIM: Nutrition in Medicine.
- NIM: Nutrition in Medicine.
- NSCP: National Schistosomiasis Control Program.
- PCM: Protein calorie malnutrition.
- PNS: physician nutrition specialists.
- REE: resting energy expenditure.
- RMR: resting metabolic rate.
- TGF- β_1 : transforming growth factor β_1 .
- TIMP: Tissue Inhibitor Metallo-Proteinases.
- TIPSS: transjugular intrahepatic portosystemic shunt .
- TNF: Tumor Necrosis Factor.
- TNT: Total Nutrition Therapy.
- UK: United Kingdom.
- UNC: university of North Carolina.
- USA: United States of America.
- USAID: United States Agency for International Development.

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Glossary

- **Chronic liver diseases (CLD):**

Several diseases that are grouped together because they have common clinical manifestations and are all characterized by chronic necro-inflammatory injury that can lead to cirrhosis and end-stage liver disease.

- **Health literacy:**

The cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health.

- **Health education:**

Any combination of learning experiences designed to help individuals and communities improve health, by increasing their knowledge or influencing their attitudes.

- **Nutrition education:**

Any set of learning experiences designed to facilitate the voluntary adoption of eating and other nutrition-related behaviors conducive to health and well-being.

- **Compliance:**

The willingness to follow a medical recommendation.

- **Adherence:**

A voluntary act of subscribing to a point of view.