

ASSESSMENT OF PHARMACIST MEDIATED EDUCATION ON HEALTH-RELATED QUALITY OF LIFE IN TYPE 2 DIABETES MELLITUS PATIENTS IN RURAL SOUTH INDIAN POPULATION

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ABSTRACT

Objective: The objective of this study was to assess the influence of pharmacist mediated education on health-related quality of life (QOL) in rural patients with Type 2 diabetes mellitus.

Methods: This is a prospective, randomized interventional study approved by the institutional ethics committee. Eligible Type 2 diabetic patients with written informed consent were enrolled and randomized into control and test group. Diabetic health profile-18 (DHP-18) questionnaire was administered to all patients at baseline and three subsequent follow-ups. Patients in the test group received structured education at every follow-up, whereas the control group patients received education only at the final follow-up. Statistical Package for the Social Sciences software was used to evaluate the data.

Results: Among the 72 patients enrolled, 35 were randomized into control group and 37 into test group. Majority of the study patients were males (65.2%) with an age range of 30–72 years and were from agriculture profession (34.72%) with school-level education (59.7%). The mean body mass index of the study patients was 25.01. At baseline, the mean HbA1 values of patients were 6.48±1.39% in the control group and 6.23±1.16% in the test group. During the last follow-up, a significant (p<0.05) improvement was observed in the DHP-18 scores in test group patients compared to control group patients which were supported by statistically significant (p<0.05) improvement in capillary blood glucose values.

Conclusion: Pharmacist mediated structured education has shown a positive impact on health-related QOL in test group patients toward their disease management.

Keywords: Diabetes, Therapeutic outcome, Health-related quality of life.

INTRODUCTION

Diabetes mellitus (DM) is a metabolic disorder characterized by hyperglycemia. Increasing at an alarming pace, particularly in developing countries [1], and it is estimated that globally about 382 million people are suffering from diabetes [2]. The World Health Organization (WHO) has estimated that by 2030, diabetes will be the 7th leading cause for death [3]. The global expenditure due to diabetes is estimated to be 548 billion US dollars, and in India, it is estimated to be 6 billion US dollars and the overall mortality rate is about 55% [2].

Inadequate management of diabetes leads to several health problems with increased risk of complications. This is mainly associated with patient's poor knowledge about the disease and its management. Medication non-adherence is another multifaceted problem, especially with chronic diseases which play an important role in determining the therapeutic outcomes. Studies have confirmed the positive influence of pharmacist mediated education on knowledge, attitude, and practices about disease and therapy which has shown a positive impact on health-related quality of life (HRQOL) [4].

Diabetic patients often develop complications due to inadequate glycemic control mainly because of poor practices regarding the disease and management [5]. Patient education is the most effective way to improvise patient responsibility toward disease management and minimize the diabetes complications and improve the outcomes. Diabetic patients wishing to lead a normal life should understand about their illness and the strategies to put the disease under control [6]. This corroborates the importance of awareness among diabetics in DM management.

The available research evidences emphasize the importance of pharmacist mediated patient education in improving the patient awareness and thereby improving medication adherence and good glycemic control along with reduced diabetes-related complications [7].

QOL is measured as physical and social functioning and perceived physical and mental well-being. Studies of clinical and educational interventions suggested that improving patient's health status and perceived ability to control their disease results in improved QOL [8].

In a study conducted by Ramanath and Santhosh has applied the WHO-Bref QOL to assess the influence of pharmacist mediated patient education on health-related QOL. At the end of the study, a significant increase in QOL, KAP, and medication adherence scores (p<0.05) was observed in patients suffering from diabetes. A significant change in glycemic control was also seen [9].

In another study conducted by Kaskurthy *et al.* has applied SF-36 questionnaire to assess the pharmacist mediated education on health-related QOL. At the end of the study, there was a statistically significant improvement in the QOL scores in patients from baseline to final follow-up (p<0.05). Clinical pharmacist mediated counseling to Type 2 diabetes patients significantly improved the QOL of the patients. The data suggest that hospital-based pharmacist's counseling can play an important role in the multidisciplinary health-care team [10].

METHODS

This is a prospective interventional study conducted in medicine outpatient department of Adichunchanagiri Hospital and Research Centre, Mandya, Karnataka, India, over a period of 6 months. Type 2 DM

