

ASSESSMENT OF INTERVENTIONS BY PHARMACIST IN IMPROVING QUALITY OF LIFE AMONG HYPERLIPIDEMIC PATIENTS IN A TERTIARY CARE TEACHING HOSPITAL

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Abstract

Keywords:

COOP/WONCA, QOL score, Dyslipidaemia

Background: World Health Organization, there is a close link between the level of safety and health, socioeconomic development and quality of life and well-being of working people. As a consequence, reducing exposure to adverse conditions at work is likely to have a positive and productive impact on the physical and mental Dartmouth COOP/WONCA of the population.

Aim: to assess the interventions by pharmacist in improving quality of life among hyperlipidemic patients in a tertiary care teaching hospital.

Materials and Method: It's a prospective study, predesigned Data Entry Form and Questionnaire were used to obtain and evaluate the data. The COOP/WONCA charts measure six core aspects of functional status: physical fitness, feelings, daily activities, social activities, change in health and overall health. In addition, pain can be included as an optional aspect.

Result: Presents the mean scores and standard deviations of the subjects who completed the COOP charts, respectively. For all of the COOP charts only minor, insignificant differences in the mean scores were found between the two groups. In addition, no significant differences were found in the mean scores ($p < 0.001$) on the COOP charts.

Conclusion: The overall QOL score were significantly lower among pre interventions ($p < 0.001$) than among post intervention. Life style counseling improves the lifestyle modifications. The results of our study show that hypertension, diabetes, stroke and IHD are risk the factors for Dyslipidaemia

Introduction

Cardiovascular disease (CVD) includes heart disease (i.e., myocardial infarction and angina), stroke, hypertension, congestive heart failure (CHF), hardening of the arteries, and other circulatory system diseases. CVD is the number one cause of death in America, responsible for more than 40% of annual deaths. An average of 1 death due to CVD occurs every 33 seconds in the United States.¹

In 2011, World Health Organization (WHO) reported the age standardized CVD mortality rates among males and females in India 7 (per 100,000) at 363–443 and 181–281, respectively.² The country wise statistics of the WHO on non communicable diseases (NCDs) estimates that NCDs account for 53% of the total deaths in India, out of which 8 CVDs have a major share of 24%.³

The cholesterol level can minimize by avoiding fast food, junk food and processed meats. When the body cannot utilize or remove the excess fat, it accumulates in the blood. Over time, the build-up damages the arteries and internal organs. This process contributes to the development of heart disease. In familial hyperlipidemia, the high

cholesterol has nothing to do with poor habits but is caused by a genetic disorder.⁴The major risk factors include poor diet, obesity, lack of exercise, smoking, diabetes mellitus.⁵

According to the World Health Organization, there is a close link between the level of safety and health, socioeconomic development and quality of life and well-being of working people. As a consequence, reducing exposure to adverse conditions at work is likely to have a positive and productive impact on the physical and mental Dartmouth COOP/WONCA of the population. For this reason, HRQoL has also been used as an outcome in studies of work⁶

Materials and Methods

A prospective observational study was conducted in the department of Medicine at Karuna Medical College Hospital, Vilayodi, Chittur, Palakkad dist., Kerala. The duration of study was 6 months (November 2016 – April 2017). The ethical approval was obtained from ethics and research committee of the institution. Inclusion criteria, Patients in the age group 30-70 years with elevated or altered lipid levels. Patients with or had a history of dyslipidaemia and/or cardiovascular complications. Exclusion criteria, pregnant women and breastfeeding women are excluded from the study. Patients who are not willing to participate are excluded from the study. A predesigned Data Entry Form and Questionnaire were used to obtain and evaluate the data. The COOP/WONCA charts measure six core aspects of functional status: physical fitness, feelings, daily activities, social activities, change in health and overall health. In addition, pain can be included as an optional aspect. The instrument consists of six charts, referring to the above-mentioned aspects of functioning. Each chart consists of a simple title, a question referring to the status of the patient and an ordinal five-point response scale illustrated with a simple drawing. Each item is rated on this five-point ordinal scale ranging from 5 ('no limitation at all') to 1 ('severely limited'); for 'change in health' score 5 means 'much better' and score 1 'much worse'. The reference period is two weeks. The COOP/WONCA charts reflect the patients' assessment of his/her functional capacity at the given time. Data were analysed by using a Graph pad prism software version 6. The overall scores for dart mouth COOP questions and subscale scores were converted into percentages. The chi – square test was used to determine the relationship between interventions (post and pre-interventions).

Result and Discussion

A total of 101 patients fulfilling the inclusion and exclusion criteria were enrolled in to the study. Among the total number of patient, 61.3% (n=62) of patients were male and 38.6% (n=39) of patients were female. The maximum number of patients affected hyperlipidemia in the age group of 61 – 70 (53.5%), followed by the age group 51 – 60 (27.7%), and the age group 41 – 50 (15.8%) as shown in Table No.1.

Table No 1: Age wise distribution.

S. No	Age Group	No. of Patients (n = 101)	Percentage (%)
1	30-40	3	03.0
2	41-50	16	15.8
3	51-60	28	27.7
4	61-70	54	53.5

Social history plays a major role in the management of hyperlipidemia. In this study population 65.5% (n=66) of patient were non-alcoholic and non-smoker, 19.8% (n=20) of the patient are smoker and drinking any form of alcohol, followed by 9.9% (n=10) of patients are smoker and 5% (n=5) of patients are drinking any form of alcohol.

Fig No 1: Social history

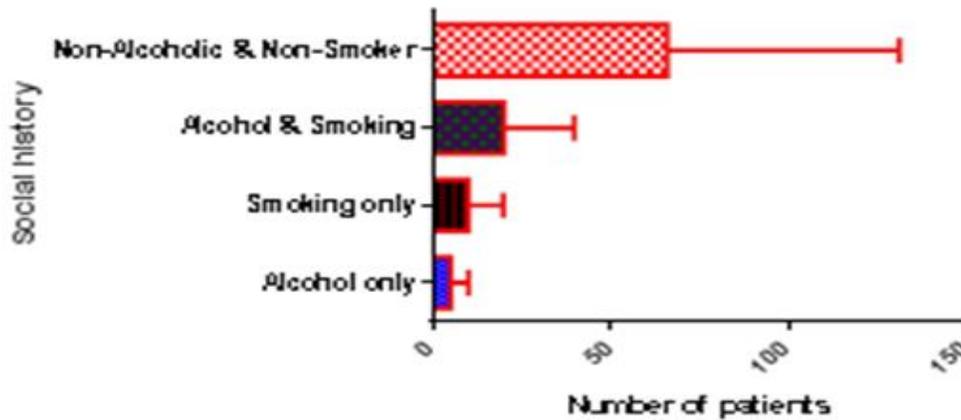


Table No 2. Dietary management

Type of food		No. of Patients	Percentage (%)
Diet	Veg Diet	13	12.9
	Mixed Diet	88	87.1

A healthy diet will help you prevent, control, and a few will even reverse diabetes. Taking steps to prevent and management of hyperlipidemia doesn't mean living in deprivation; it suggests that eating a tasty, balanced diet that may also boost your energy and improve patient's mood. In this study population 87% (n=88) patient are having mixed diet and 12% (n=13) of the patient having vegetarian.

Table 3: Comparison of quality of life of study population across intervention

Questions	PREINTERVENTION					POSTINTERVENTION				
	Very well	Pretty good	Good & Bad	Pretty bad	Very Bad	Very well	Pretty good	Good & bad	Pretty bad	Very Bad
Physical fitness	0	8	34	40	19	0	30	64	6	1
Feelings	1	16	45	34	5	19	61	20	1	0
Daily activities	0	13	33	40	15	5	36	53	6	1
Social Activities	3	19	47	26	6	17	62	20	1	1
Pain	1	17	39	39	5	25	50	22	4	0
Change in Health	3	13	23	51	11	21	72	6	1	1
Overall Health	0	6	33	52	10	2	29	66	4	0
Social support	3	17	42	36	3	11	70	17	3	0

In our study post intervention results show improved results than the pre-intervention based on the scoring, the physical fitness on among population were in horrific condition, was detected based on the questions and patient counseling were provided regarding the physical exercise which is one of the non-pharmacological management for hyperlipidemia. They are made to understand the importance of exercise in maintaining cholesterol level in the body. The post-intervention studies results show 64 patients were under good and bad conditions and 30 patients were under good conditions.

The patient's nature such as anxious, depressed, and irritable in disease conditions in these populations, 39 patients were under their feelings are in terrible conditions and 45 were having both good and bad conditions equally are detected on pre-intervention studies. In post intervention studies results showing that 80 patient's feelings are improved due to our advices about their diseases.

The daily activities of these populations are assessed based on scorings the pre-intervention studies show 55 patients are in horrific and 41 patients comes were under pretty good and 53 patients were under good and bad conditions equally during the post intervention phase. These result shows that the complications of hyperlipidemia are the reasons for doing the daily activities and during our pre-interventional studies we provide counseling and they agree to do the exercises and it reflected on post - interventional studies.

The social activities were monitored by checking their physical and emotional health, which limited their social activities with family, friends, and neighbors, and in pre - interventional studies 32 patients were in bad and 47 patients were having both good and bad conditions equally and during the post intervention phase 79 patients were improved.

The pain on these study population during the pre - intervention phase shows 44 patients were under bad conditions and 39 patients equally have both bad and good conditions and 75 patients were improved during the post intervention phase; these results shows acceptance of our counseling.

In pre - intervention studies the changes in health of 16 patients were under bad conditions and 23 patients under bad and good conditions equally and the cooperation of patients with their treatments in both pharmacological and non-pharmacological 93 of participant's health conditions are improved.

The overall health statuses of the study populations, 62 of were bad in pre- intervention phase and after two weeks they were rated their overall health status and 31 patients were under very good and 66 patients shows both bad and good conditions during post intervention phase.

In pre - interventional studies, the social support were poor to 39 patients and were increased to 81 patients due to the acceptance of our patient counseling they will get more social support.

Table 4: Analysis of QOL based on Dart Mouth COOP Functional Assessment Chart

S No.	DMCA Score	Pre-Intervention	Post-Intervention
1	Very Well	0	05
2	Pretty Good	08	50
3	Good & Bad	36	40
4	Pretty Bad	48	05
5	Very Bad	09	01

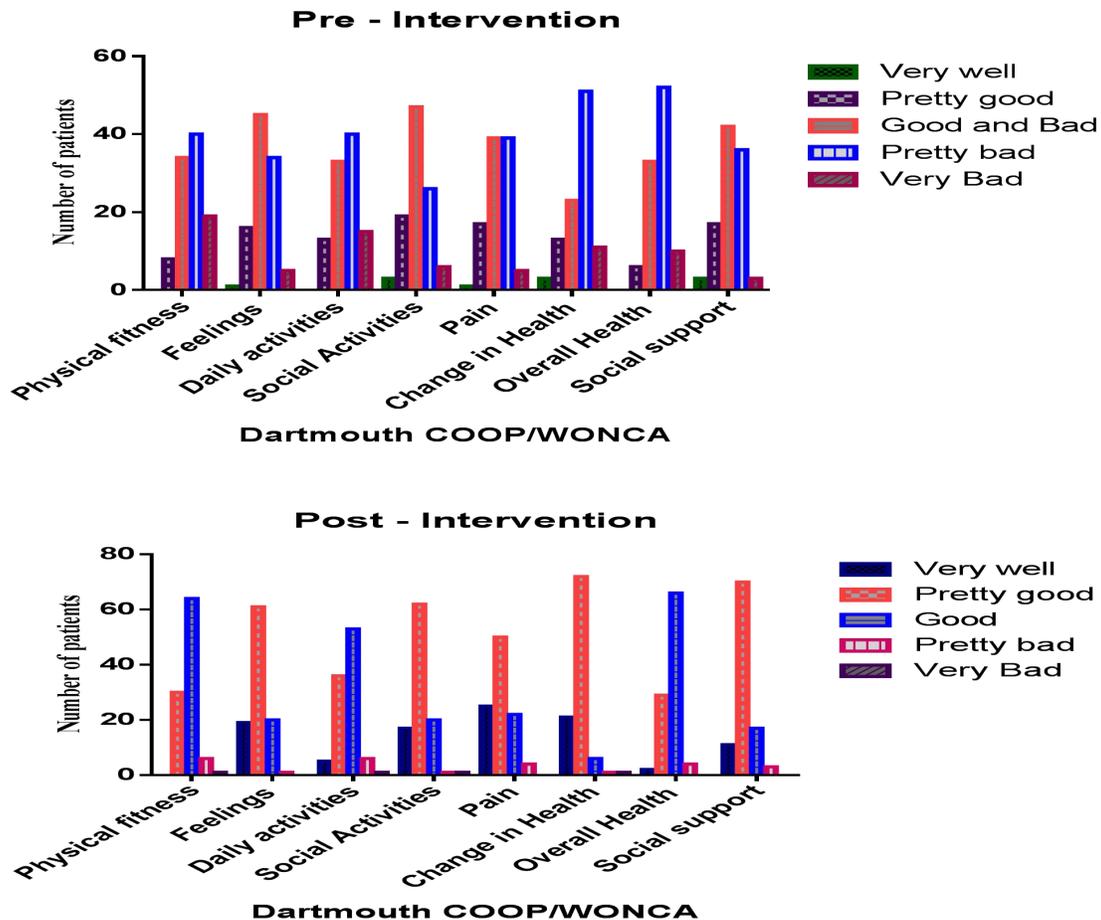


Figure 3: Comparison of assessment of quality of life of the study population using Dartmouth COOP Functional Assessment Chart

Table No: 5 Descriptive statistics (mean and SD) of COOP dimension scores.

S.No	COOP charts	Pre – Intervention	Post - Intervention
1	Physical fitness	3.69±0.868	2.76±0.588
2	Feelings	3.25±0.820	2.03±0.665
3	Daily activities	3.56±0.899	2.61±0.726
4	Social Activities	3.12±0.890	2.08±0.713
5	Pain	3.29±0.843	2.05±0.804
6	Change in Health	3.53±0.956	1.89±0.633
7	Overall Health	3.63±0.740	2.71±0.574
8	Social support	3.18±0.856	2.11±0.623

Table 5 presents the mean scores and standard deviations of the subjects who completed the COOP charts, respectively. For all of the COOP charts only minor, insignificant differences in the mean scores were found between the two groups. In addition, no significant differences were found in the mean scores ($p < 0.001$) on the COOP charts.

Conclusion

In our study population, the improvements in the six core aspects of functional status: physical fitness, feelings, daily activities, social activities, change in health and overall health. The overall QOL score were significantly lower among pre interventions ($p < 0.001$) than among post intervention. Life style counseling improves the lifestyle modifications. The results of our study show that hypertension, diabetes, stroke and IHD are risk the factors for Dyslipidaemia.

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