

# Study to assess the effectiveness of planned education programme on knowledge regarding enhancing quality of life among diabetic patients

## Abstract

**Background:** Diabetes is rising in India and has surpassed all other countries of the world. During the last few years, ever growing interest has been directed towards the impact of quality of life on diabetes. Its well knows that diabetic patients must deal with their diabetes every day, which influences the quality of life.

## Objectives:

- i. To assess the knowledge regarding enhancing quality of life among diabetic patients
- ii. To assess the effectiveness of planned education programme on knowledge regarding enhancing quality of life among diabetic patients.

**Methodology:** An experimental, one group pretest posttest without control group design was adopted. Total of 100 samples were selected using simple random sampling technique to assess the effectiveness of planned education programme on knowledge regarding enhancing quality of life among diabetic patients, a structured questionnaire was developed consisting of knowledge and quality of life questions for collecting data for analysis.

**Results:** The study found that the diabetic patients had inadequate knowledge regarding quality of life; the planned education programme was effective in bringing the change in the knowledge level regarding enhancing quality of life among diabetic patients. The mean pretest knowledge score was  $12.32 \pm 3.28$  and posttest knowledge score was  $24.67 \pm 0.98$  (mean  $\pm$  standard deviation) respectively. The study was significant with t value 35.14 degrees of freedom 99 at 0.05 level of significance.

**Conclusion:** The study was effective in imparting the knowledge to enhance quality of life among diabetic patient which bring confidence in self care of diabetic patients.

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## Introduction

Diabetes has become a global disease, it is fourth leading cause of death in most of the developed and developing countries, diabetes has been excesses more than 200 millions this figure is predicted to reach 333 million by 2025 as a consequence of longer life expectancy, sedentary lifestyle and changing dietary patterns.<sup>1</sup> Diabetes is the global epidemic of 21<sup>st</sup> century, according to World Health Organization presently there are 34 million diabetes patients in India with projected increase to 79 million by 2030. World Health Organization estimated that every 5<sup>th</sup> diabetic is an Indian.<sup>2</sup>

Diabetes affects millions of people and its incidence are predicted to continue dramatically increase in the near future. Person living with diabetes tends to perform numerous daily behaviours to care for their diabetes in order to achieve glycemic control and to reduce the risk of developing acute or chronic diabetic complications. The recommended daily activities such as dietary changes, regular exercise, taking medication as prescribed, self blood glucose monitoring, checking foot for complication, have a minimal knowledge among the diabetic population. In addition diabetic patients must deal with medication side effects, acute or chronic metabolic complication and co-morbid conditions.<sup>3</sup>

Quality of life is multidimensional construct consists an individual subjective perception of physical, emotional well-being, includes both cognitive and emotional components. Quality of life is important for the people with diabetes, as the patients suffer from poor quality of life, often diabetic patient take a '...to hell with it..!' attitude towards their self care and does less than should be done to manage diabetes. Poor quality of life in diabetes leads to diminished self care, poor glycemic control, increased risk for complications and exacerbation of diabetes. Thus, quality of life is crucially important, as a powerful prediction of an individual capacity to manage his/her disease will help in maintain a long term health and well being.<sup>4</sup>

## Objectives of the study

- i. To assess the knowledge regarding enhancing quality of life among diabetic patients.
- ii. To assess the effectiveness of planned education programme on knowledge regarding enhancing quality of life among diabetic patients.

The study was conducted with a research hypothesis that there will be significant difference between the pretest and posttest knowledge score regarding enhancing quality of life among diabetic patients.

## Methodology

The study was conducted in selected hospital, a experimental, one group pretest posttest without control group design was adopted, a total of 100 samples were selected using simple random sampling technique, to assess the effectiveness of planned education programme on knowledge regarding enhancing quality of life among diabetic patients, a structured questionnaire was developed consisting of demographic variables such as age, gender, religion, residence, family type, marital status, dietary pattern, educational status of patients, occupation, income per annum, previous exposure to educational programme on ensuring quality of life of diabetic patients and knowledge of diabetics and quality of life regarding diabetic for collecting data. The ethical clearance was obtained by the concerned authority. The pilot study showed that the designed tool was valid, feasible and reliable. The data was collected for the analysis.

## Results

The study results showed that the following demographic variables

- i. Majority 45(45.00%) of the diabetic patients were of age 50-60 years.
- ii. 64(64.00%) of were males and 36(36.00%) of were females.
- iii. 45(45.00%) were Hindus, 35(35.00%) were Muslim, 20(20.00%) were Christian.
- iv. Out of 100 diabetic patients 52(52.00%) were residing in rural area and 48(48.00%) were residing in urban area.
- v. Most of diabetic patients were belonging to nuclear family 90(90.00%) and only 10(10.00%) were living as joint family.
- vi. 85(85.00%) of diabetic patients were married and living with spouse and only 15(15.00%) were single.
- vii. 60(60.00%) of diabetic patients were having vegetarian diet and 40(40.00%) were having mixed diet.
- viii. 46(46.00%) of diabetic patients were non formally educated, 20(20.00%) of diabetic patients were had primary education, 10(10.00%) were had secondary education, 10(10.00%) were had pre-university education and 14(14.00%) were had graduation and above education.

- ix. Out of 100 diabetic patients 34(34.00%) were labours, 20(20.00%) were agriculture, 20(20.00%) were self employed and 26(26.00%) were employed in various job category.
- x. 50(50.00%) of diabetic patients had annual income less than 50000 rupees, 25(25.00%) had annual income between 50001-100000 rupees, 8(8.00%) had between 100001-200000 rupees, 10(10.00%) had between 200001-400000 rupees and 7(7.00%) had income 400001 and above.

### Assessment of the pretest knowledge score of diabetic patients regarding enhancing quality of life

- i. The Mean±Standard deviation of pretest knowledge score was 12.32±3.25 respectively.
- ii. Out of 100 diabetic patients 90(90.00%) of them had inadequate knowledge, 10(10.00%) of them had moderate knowledge and none of them had adequate knowledge regarding enhancing quality of life.

### Assessment of posttest knowledge score of diabetic patients regarding enhancing quality of life

- i. The Mean±Standard deviation of posttest knowledge score was 24.37±1.20 respectively.
- ii. After administering planned teaching programme, 90(90.00%) of diabetic patients gained adequate knowledge, 10(10.00%) of the acquired moderate knowledge and none out of 100 diabetic patients were left with inadequate knowledge, this significant that the planned teaching programme was effective in imparting knowledge regarding enhancing quality of life.

### Comparison of pretest and posttest mean, standard deviation, mean% and mean% enhancement

The Table 1 shows that the pretest (mean±standard deviation) is 12.32±3.28 with mean% 41.06 and posttest (mean±standard deviation) is 24.67±0.98 with mean% 82.23, this signifies that there was mean% enhancement of 41.17% which depicts that the planned teaching was effective in enhancing the knowledge of quality of life among diabetic patients. The paired t test value was 35.14 for 99 degrees of freedom at 0.05 level of significance.

**Table 1** Comparison of pretest and posttest mean, standard deviation, mean% and mean% enhancement

Questionnaire	Number of question	Pretest scores		Mean%	Posttest scores			
		Mean	Standard deviation		Mean	Standard deviation	Mean% enhancement	
Regarding Diabetes	5	3.25	0.87	65.00	4.87	0.06	97.40	32.40
Regarding enhancing quality of life on diabetes	25	9.07	3.25	36.28	19.80	1.06	79.20	42.92
<b>Total</b>	<b>30</b>	<b>12.32</b>	<b>3.28</b>	<b>41.06</b>	<b>24.67</b>	<b>0.98</b>	<b>82.23</b>	<b>41.17</b>

n=100

## Discussion

The study found that the majority of the diabetic patients had inadequate knowledge regarding quality of life in the pretest which was similar to the findings of the study.<sup>5</sup> A planned teaching programme was significantly effective in bringing the knowledge to

the diabetic patients, the posttest knowledge score showed that none of the diabetic patient had inadequate knowledge regarding quality of life; these findings were similar to the study findings.<sup>6,7</sup> The study showed that nurses in there service have ampoule of opportunity to bring improvement in quality of life of diabetic patients which aids in beat diabetic.

## Recommendations of the study

The study recommended that a true experimental study can be conducted with control group. A large sample size can be selected. Similar studies can be conducted in rural areas to improve quality of life among rural dwelling patients.<sup>8-10</sup> The present study explore the knowledge regarding quality of life among diabetic patients and a teaching program to impart the knowledge of quality of life, however the study learns and focus on the knowledge domain and do not explore on quality life practice among diabetic patients. A study to concentrate on the practice of quality of life among diabetic patients can be conducted.<sup>11-14</sup>

## Conclusion

Diabetes mellitus is a common chronic illness that places serious constraints on patients' activities. There is a need for extensive education and behaviour change to manage the condition. Life style changes must incorporate careful dietary planning, eventual use of medication and for all patients with diabetes. The use of insulin, home blood glucose monitoring techniques. From the findings of the present study, it is concluded that the level of knowledge regarding quality of life among diabetic patients was inadequate during pretest assessment. This inadequate knowledge showed adequate level of knowledge in posttest assessment, after implementing planned teaching programme. Hence it was concluded that planned teaching programme regarding enhancing quality of life among diabetic patients was highly significant and effective.

## Acknowledgments

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## Conflict of interest

The author declares no conflict of interest.

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