

## VI. Association of post-test knowledge and practice of mothers regarding breast feeding and selected their demographic variables in experimental group and control group

Chi-square test computed between the mothers post-test knowledge scores on breast feeding and the selected demographic variables of mothers in experimental and control group showed that there was no significant association between the level of knowledge and demographic variables like age, religion residence, family, education, occupation, mode of delivery, gravida and sex of baby. There was significant association of knowledge with income in experimental group. There was a significant association between the mother's breastfeeding practice score and education of mothers in experimental group.

## DISCUSSION

Breastfeeding is important because of the many benefits that it has for babies and mothers.. This study was the first study that assessed breastfeeding knowledge and practice among mothers of Preterm baby in India. There was a significant difference in the mean post-test knowledge scores of mothers of preterm babies in experimental(15.31±3.05) and control group (6.88±2.21) and t value was found to be significant at 0.001 level (t=19.63, p<0.001). With regard to practice there was a significant difference in the mean pre and post- test practice scores of mothers of preterm babies and t value was found to be significant at 0.001 level (t=0.11, p=0.001). Hence the VAT was effective in improving the knowledge and practice scores of mothers in the experimental group. This finding are consistent with other similar studies of Ahmed AH7, Manekar S8, and komal9 et al. Mothers of preterm infants need immediate support starting immediately after birth by highly health professionals.

## CONCLUSION

Providing mothers with adequate information about breastfeeding and teaching them how to breastfeed

immediately after delivery is an effective way to encourage breastfeeding. Individual teaching and the use of VAT was effective. Thus, it is important as nurses to initiate and support mothers of preterm baby by providing teaching on breastfeeding.

CONFLICT OF INTEREST: None

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## Original Article

# Comparison of Lifestyle Pattern between Controlled and Uncontrolled Type- II Diabetes Mellitus Patients

T.Umadevi<sup>1</sup>, G. Vijayalakshmi<sup>2</sup>

1. Asst.Lecturer, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.563103.

2. Principal, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.563103

## Author for correspondence

T.Umadevi,

Asst.Lecturer

Sri Devaraj Urs College of Nursing,  
Tamaka, Kolar.563103.

Mob: 9901235566

Email: Venkatabhavadeesh@gmail.com

## ABSTRACT

**INTRODUCTION:** Studies on Diabetes mellitus have shown that proper maintenance of healthy life style can control Type-II DM. Hence the study was undertaken with an objective to compare the lifestyle patterns between Controlled and Uncontrolled Type-II DM Diabetes mellitus patients.

**METHODOLOGY:** Across sectional descriptive research design was used. Using purposive sampling technique 50 Controlled Type II patients and 50 Uncontrolled Type II Diabetes Mellitus patients were selected. Both groups were assessed for their bio-physiological parameters and life style patterns using checklist through interview schedule.

**RESULTS:** The mean value of Controlled Type II DM was 11.86 with SD of 1.45, where as in Uncontrolled Type II DM, the mean value was 8.32 with SD of 1.80. The mean difference of lifestyle patterns of Controlled Type II DM patients 11.86 was more than mean difference of Uncontrolled Type II DM patients 8.32.

**CONCLUSION:** The study concluded that Controlled Type II DM patients following much better lifestyle patterns than Uncontrolled Type II DM patients. The present study recommends that regular counseling is required for Uncontrolled Type II Diabetes Mellitus patients in order to follow healthy lifestyle pattern.

**KEY WORDS:** Lifestyle patterns, Type-II DM patients, Controlled Type-II DM patients, Uncontrolled Type-II DM patients.

## INTRODUCTION

Diabetes mellitus is a serious illness that imposes a tremendous health and social burden worldwide<sup>1</sup> and type-II diabetes mellitus is the leading cause of premature death. India is the diabetic capital of the world.<sup>2</sup> The high incidence of diabetes in India is mainly because of sedentary lifestyle, lack of

physical activity, obesity, stress and consumption of diets rich in fats, sugar and calories. Diabetes mellitus requires continuous care, as they require to exert some control over the maintenance of their disease, if they want to achieve stable health.<sup>3</sup> A study on factors associated with poor glycemic control among patients with Type-II diabetes



was conducted at Jorden. For the study using systematic random sampling technique, 917 patients were included. The results showed that, the poor glycemic control was more common among patients who did not follow dietary regimens, did not practice any physical activity, who were not adherent for medications and did not regularly perform home glucose monitoring<sup>4</sup>. A comparative study on glycemic control and incidence of retinopathy was conducted between Controlled and Uncontrolled Type II DM in India and Karnataka respectively. The result showed that there was a good glycemic control and less incidence of retinopathy was found in Controlled diabetes then Uncontrolled diabetics. Hence the study was undertaken to compare the lifestyle patterns between Controlled and Uncontrolled type-II Diabetes mellitus patients<sup>5,6</sup>.

## OBJECTIVES

1. Determine the lifestyle patterns of Controlled and Uncontrolled Type-II Diabetes Mellitus patients by using bio physiological parameters and checklist.
2. Compare the life style patterns of Uncontrolled Type-II Diabetes Mellitus with that of Controlled Type-II Diabetes Mellitus patients.
3. To identify the relationship of lifestyle patterns of Controlled and Uncontrolled Type-II Diabetes Mellitus patients with selected Socio-Demographic variables like age, gender, literacy, occupation, income, habits, duration of diagnosis of DM.

## MATERIALS AND METHODS

This study was based on Concept, Input, Process and Product (CIPP) model on evaluation developed by Daniel Stufflebean (2003). The design used for the study was a Cross Sectional descriptive research design. Based on objectives of the study, bio physiological parameters on lab reports and checklist on interview schedule and a health education pamphlet was prepared

in English and then it was translated to Kannada, since the study participants communication and understanding were only in Kannada. The tool and health education pamphlet were validated by eight research and subject experts for its adequacy and appropriateness. After obtaining an ethical clearance from an institutional ethical committee, a formal written permission was obtained from the Medical Superintendent of R.L.Jalappa hospital and Research Centre. After taking consent from Type II Diabetes Mellitus patients, through purposive sampling technique 50 patients were included under Controlled Type II DM group whose fasting blood sugar level was 80-130mg/dl and Post Prandial blood sugar level was less than 150mg/dl and 50 patients were included under Uncontrolled Type II DM group whose fasting blood sugar level was more than 130mg/dl, Post Prandial blood sugar level was more than 190mg/dl and HbA1c was more than 7%. Then both groups were assessed for their bio-physiological parameters through lab reports and lifestyle pattern through checklist. A health education pamphlet on life style patterns to control Diabetes mellitus was distributed to all Uncontrolled Type II DM patients.

## RESULTS

### I. Socio-demographic variables

With regard to socio-demographic variables, majority (54% in Controlled and 58% in Uncontrolled) of Type II DM patients belonged to the age group of 41 to 60years, most (68% in Controlled and 52% in Uncontrolled) were male, majority 44% in Controlled Type II DM were high school educated, 50% in Uncontrolled Type II DM were Primary school educated, majority (80% in Controlled and 86% in Uncontrolled Type II DM) of them were self-employed, majority (62% in Controlled and 86% in Uncontrolled Type II DM) of them were having less than Rs.5000/- per month, majority (34% in Controlled and 34% in Uncontrolled) had no habits, (28% in Controlled and 34% in Uncontrolled) of them were tobacco users, 52% in Controlled and 74% in Uncontrolled were Diabetic for >3 years. (Table-1)

### II. Biophysiological parameters of Controlled and Uncontrolled Type II DM patients

With regard to biophysiological parameters of Type II DM patients, the obtained mean value of FBS in the Controlled Type II Diabetes Mellitus patients was 126.6 with SD of 4.94 where as in the Uncontrolled Type II Diabetes Mellitus patients the mean value of FBS was 174 with SD of 15.6. The obtained mean value of PPBS in the Controlled Type II Diabetes Mellitus patients was 134.6 with SD of 10.03 where as in the Uncontrolled Type II Diabetes Mellitus patients the mean value of PPBS was 311 with SD of 72.3. The obtained mean value of HbA1c in the Controlled Type II Diabetes Mellitus patients was 6.15 with SD of 0.2 where as in the Uncontrolled

Type II Diabetes Mellitus patients the mean value of HbA1c was 7.98 with SD of 0.8. (Table 2)

### III. Distribution of Type II DM patients according to lifestyle Pattern

The lifestyle patterns data related to diet, medications, exercises and alternative therapy was conducted and it revealed that the Controlled Type II DM patients were following much better lifestyle patterns compared to Uncontrolled Type II DM patients. (Table 3)

IV. Comparison of lifestyle patterns of Uncontrolled Type-II Diabetes Mellitus with that of Controlled Type-II Diabetes Mellitus patients. Comparison of overall mean value of Type II DM patients was done between Controlled Type II DM

Table 1: The socio-demographic variables of Type II DM patients n=100

Variables	Lifestyle patterns of Type II DM patients			
	Controlled Type II DM n=50		Uncontrolled Type II DM n=50	
	f	%	f	%
Age(41-60Yrs)	27	54	29	58
Male	34	68	26	52
Primary school			25	50
High school	22	44		
Self employed	40	80	43	86
<5000	31	62	43	86
No habits	17	34	17	34
>3yrs	26	52	37	74

Table 2: Biophysiological parameters of Controlled and Uncontrolled Type II DM patients n=100

Variables	Controlled Type-II DM n=50		Uncontrolled Type-II DM n=50	
	Mean	SD	Mean	SD
FBS	126.6	4.94	174	15.6
PPBS	134.6	10.03	311	72.3
HbA1c	6.15(n=10)	0.2	7.98	0.8



**Table 3: Frequency distribution and percentage Distribution of Type II DM patients according to lifestyle Pattern**

Lifestyle patterns	n=100									
	Controlled Type II DM n=50					Uncontrolled Type II DM n=50				
	Yes		No			Yes		No		
	f	%	f	%		f	%	f	%	
Menu plan										
• Milk/coffee/Tea without sugar between 6-7am	50	100	-	-		47	94	3	6	
• Breakfast 8-9 am	46	92	4	8		24	48	26	52	
• Snacks/drinks 11-11.30am	19	38	31	62		10	20	40	80	
• Lunch between 1-2pm	46	92	4	8		21	42	29	58	
• Evening snacks like Milk/coffee/Tea with biscuits between 5.30-6pm	48	96	2	4		41	82	9	18	
• Dinner between 7-8.30pm	35	70	15	30		12	24	38	76	
• Maintaining 2 hrs gap from dinner time to before going bed.	50	100	-	-		49	98	1	2	
• Any drinks before going bed.	8	16	42	84		-	-	50	100	
• Taking plenty of vegetables like all green leafy vegetables	50	100	-	-		50	100	-	-	
• Taking 1-2 cups of fruits daily.	40	80	10	20		8	16	42	84	
Medications										
• Oral medications	50	100	-	-		37	74	13	26	
• Insulin	-	-	50	100		32	64	18	36	
• Taking correct time as per physician prescription	50	100	-	-		50	100	-	-	
Exercises										
• Doing exercises daily	47	94	3	6		17	34	33	66	
Alternative therapy										
• Yoga	3	6	-	-		-	-	-	-	
• Meditation	4	8	43	86		1	2	49	98	

**Table-4: Comparison of lifestyle patterns among Type-II DM patients**

Lifestyle patterns	Mean	SD	df	Unpaired t-value	P value
Controlled Type II DM n=50	11.86	1.45			
Uncontrolled Type IIDM n=50	8.32	1.80	98	11.06	1.96*

\*Significant at 0.05 level

and Uncontrolled Type II DM (Table 4). The mean difference of lifestyle patterns of Controlled Type II DM patients 11.86 was more than mean difference of Uncontrolled Type II DM patients 8.32. Hence the Controlled Type II DM patients had much better lifestyle patterns than Uncontrolled Type II DM patients. The obtained t-value was 11.06, which was greater than table value (1.96) at 0.05 level of significance.

#### IV. Association of lifestyle patterns of Controlled and Uncontrolled Type-II Diabetes Mellitus patients with selected Socio-Demographic variables

The associations of lifestyle patterns of Type II DM patients were tested by using chi-square and fisher's exact test. There was no association of lifestyle patterns of Controlled and Uncontrolled Type-II DM patients with socio-demographic variables such as age, gender, literacy, occupation, income, habits, and duration of diagnosis of DM.

#### DISCUSSION

The present study was undertaken to compare the life Style Patterns of Controlled and Uncontrolled Type- II Diabetes mellitus patients. The findings of socio-demographic variables of Controlled and Uncontrolled Type II DM patients revealed that majority of them were between 41 to 60 years of age group, most of them were males. This finding was supported by the study conducted by Deepa et al (2003) on the epidemiology of Diabetes Mellitus showed that majority (52.8%) were males and 47.2% were females. Comparison of overall mean value of Type II DM patients was done between Controlled Type II DM and Uncontrolled Type II DM. The mean difference of lifestyle patterns of Controlled Type II DM patients 11.86 was more than mean difference of Uncontrolled Type II DM patients 8.32. This indicated that Controlled Type II DM patients followed much better lifestyle patterns than Uncontrolled Type II DM patients. It was supported by the study conducted by Preha Singh, Veerendra Kumar Arumalla on Comparison of Lipid Profile between Controlled

and Uncontrolled Type-II Diabetic patients in India revealed that total serum cholesterol, Triglyceride, LDL-C and low HDL-C were observed in Type II Diabetics with poor glycemic control compared to patients with good glycemic control<sup>5</sup>. Further it was observed that Uncontrolled patients were looking tired and sick appearance than controlled Type II DM patients.

#### LIMITATIONS

The study was limited only to the Type II Diabetes Mellitus patients who are attending OPD and admitted at R.L.Jalappa hospital and Research centre, Tamaka, Kolar.

#### CONCLUSION

The study on lifestyle patterns among Controlled and Uncontrolled Type-II Diabetes Mellitus patients revealed that Controlled Type II DM patients were following much better lifestyle patterns than Uncontrolled Type II DM patients. Hence the study concludes that adequate information, motivation and counseling are essential for Type II DM patients in order to practice healthy lifestyle pattern in day to day life and to prevent further complications.

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#### CONFLICT OF INTEREST: None

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