A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF RELAXATION TECHNIQUES ON LEVEL OF CARE BURDEN AMONG PARENTS OF THALASSEMIA CHILDREN IN SELECTED HOSPITAL OF DIST. MOHALI (PUNJAB)

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Abstract

Introduction:

Thalassemia is a chronic, inherited blood disorder that requires lifelong medical care, including regular blood transfusions and iron chelation therapy. Parents of children with thalassemia face immense stress due to the demands of lifelong treatment. Relaxation techniques like deep breathing, progressive muscle relaxation, and meditation can help reduce anxiety and improve well-being. While proven effective in other caregiver groups, their impact on thalassemia parents remains underexplored.

Methodology: *The study followed a quasi-experimental one-group pre-test post-test design with 20 parents of thalassemia children from a selected hospital in Indore. Using purposive sampling, the group (8 males, 12 females) was assessed for stress levels via a validated rating scale (r = 0.87). The study applied the modified Imogene King's Goal Attainment Model. Parents practiced Herbert Benson's relaxation response for 15 minutes, twice daily, over 24 sessions. Data was analyzed using descriptive and inferential tests ('χ2' & 't' test) to evaluate the impact of relaxation techniques on stress reduction.*

Major Finding: *The pre-test revealed varying levels of care burden among parents of thalassemia children: 40% had mild, 35% moderate, and 25% severe burden. After relaxation techniques, post-test results showed 70% with mild and 30% with moderate burden, indicating a significant reduction ($t = 4.19$, $p < 0.01$). No significant association was found between care burden and demographic variables, leading to the rejection of H_2. The study highlights important implications for nursing practice, education, administration, and research, emphasizing the need for stress prevention strategies in caregiver support.*

Conclusion: *Nursing curriculum should lay more emphasis on the problem of care givers and parents of disabled child. Nurse educators should have responsibility in up grading the knowledge of students on level of care burden among parents and its prevention by orienting and encouraging them to use effective coping strategies' during clinical posting. More and more research can be carried out to reduce or to decrease level of care burden among parents of thalassemia children, to keep them healthy and more productive in work. So the body of knowledge is the key factor, this can be explored by increasing research studies in the field of level of care burden and coping strategies.*

Key Point: *Thalassemia as a Chronic Condition, Relaxation Technique, Care Burden on Parents, support program*

Introduction:

Thalassemia is a hereditary blood disorder requiring lifelong medical care, including blood transfusions and iron chelation therapy. Parents of children with thalassemia face significant care burden, experiencing physical exhaustion,

emotional distress, financial strain, and social limitations. Chronic stress can lead to caregiver burnout, affecting both their well-being and the quality of care provided. Relaxation techniques—such as deep breathing, progressive muscle relaxation, and meditation—are effective in reducing stress, improving emotional resilience, and enhancing coping mechanisms. These non-pharmacological methods are cost-effective and easy to implement, yet their impact on reducing caregiver burden in thalassemia remains underexplored. More research is needed to integrate relaxation strategies into caregiver support programs.

REVIEW OF LITERATURE

The literature reviewed is presented in this chapter under the following headings:

- Literature related to thalassemia disorders.
- Literature related to care burden
- Literature related to effectiveness of relaxation techniques

Al-Maskari F, El-Sadig M (2007) A cross-sectional survey in Al-Ain, UAE (2003/2004) assessed foot complications in 513 diabetic patients (mean age: 53 ± 13 years). Participants completed questionnaires and underwent medical assessments, including foot exams for peripheral neuropathy (PN) and peripheral vascular disease (PVD). Among them, 86% had type 2 diabetes, 39% had PN (95% CI: 35.1-43.7%), and 12% had PVD (95% CI: 8.8-14.4%). Key risk factors included male gender, low education, UAE nationality, longer diabetes duration, type 2 DM, hypertension, and microalbuminuria. Despite a low prevalence of foot ulceration and amputation, many patients had significant risk factors for complications.

Kshitij Shankhdhar, 2008 A lack of awareness also contributes to the problem. Given the large numbers of people walking barefoot, there are innumerable foot lesions. However, these lesions are often neglected by patients due to diabetic neuropathy. In 90 percent of foot ulcer cases in patients with diabetes, sensory neuropathy is part of the problem.

Vatankhah .N,et al (2009) An experimental study in Tehran, Iran, evaluated the impact of a face-to-face educational program on foot care knowledge and practices among 148 individuals with type 2 diabetes. Participants completed a 32-item questionnaire assessing their knowledge and behaviors before and after the intervention. Results showed a significant improvement in both knowledge ($p < 0.0001$) and practice ($p = 0.011$) after education, with greater improvements in lean participants (BMI ≤ 25) compared to obese ones. The study concluded that simple, face-to-face education is an effective method for enhancing diabetic foot care awareness and practices.

Methodology

This experimental-quantitative study used a pre-experimental one-group pre-test post-test design to assess the impact of a structured teaching program on foot care knowledge among type 2 diabetes patients. A purposive sample of 60 patients from OPDs in selected hospitals of Gandhinagar, Gujarat, participated. Data was collected

through a structured interview schedule, and the intervention was delivered via a pamphlet-based teaching program.

Sampling:

The study included 60 type II diabetic patients selected through purposive sampling. Participants were those present during data collection, met the inclusion and exclusion criteria, and willingly took part in the research.

Inclusion Criteria:

- Type II Diabetic patient's age above 30 yrs.
- Type II Diabetic patients whose blood sugar level is above 140mg/dl.
- Type II Diabetic patients who attends OPD in Gatujarat hospital Gandhinagar District, Gujarat State.
- Type II Diabetic patients who can understand and respond in Hindi & English.
- Type II Diabetic patients who are willing to participate.

Data Collection Procedure:

- A written permission was obtained from the concerned authority.
- Total 60 samples were selected for the study from OPD of hospital.
- The purpose of the study was explained to the respondents and informed consent was obtained.
- Confidentiality was assured to all the subjects to get their cooperation.
- A pre-test with the socio demographic data and structured interview schedule was used to assess the knowledge of type II diabetic patients regarding foot care from.
- Post-test was administered on the 15th day during their follow up visit by using the same questionnaire.

DATA ANALYSIS & INTERPRETATION

The collected data was tabulated, organized and analysed by using descriptive and inferential statistics.

- Section I: Demographic Data of Respondent
- Section II: Association of pre test knowledge score with selected demographic data
- Section III: Comparison of mean score of significant demographic variable
- Section IV: Association between pretest knowledge score and selected demographic variables
- Section V Effectiveness of Pamphlet

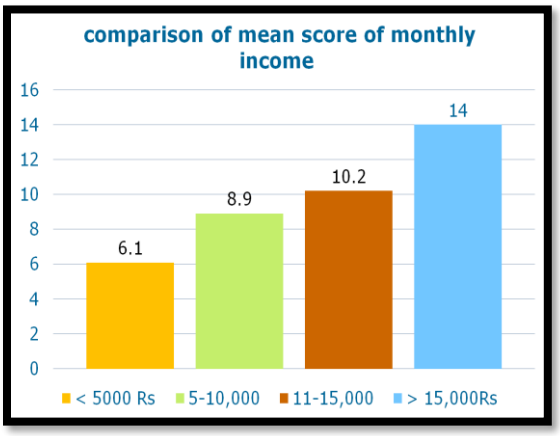
Section: II Association of pre test knowledge score with selected demographic data

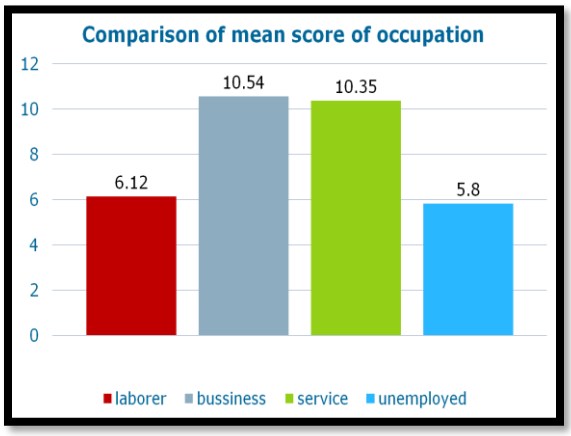
S.No.	Demographic variables	Frequency (n)	Percentage (%)	X^2 Value
1.	Age in years 31-40 41-50 51-60 >60	 5 19 27 9	8.3% 31.6% 45% 15%	10.52 NS
2.	Sex		60%	1.8

	Male Female	36 24	40%	NS
3.	Marital Status Single Married Divorced Widow	 4 47 4 5	6.66% 78.33% 6.66% 8.3%	5.67 NS
4.	Qualification Illiterate Primary Education Higher Secondary Graduate	 9 9 36 6	15% 15% 60% 10%	10.88 NS
5.	Occupation Laborer Business Service Unemployed	 8 14 22 16	13.33% 23.33% 36.66% 26.66%	15.09 S
6.	Monthly Income in Rs. <5000 5000-10000 11000-15000 >15001	 19 15 23 3	36.1% 25% 38.3% 5%	18.28 S
7.	Family history of diabetes Yes No	 36 24	60% 40%	9.3 S
8.	Duration of diabetes mellitus <5 years 6-10 years 11-15 years >15 years	 12 30 12 6	20% 50% 20% 10%	5.44 NS

Section III : Comparison of mean score of significant demographic variable

Column diagram showing mean score of socio demographic data of monthly income





Column diagram showing mean score of different occupation.

Section IV Association between pretest knowledge score and selected demographic variables

Assess the pre-test knowledge scores of diabetic patients regarding foot care

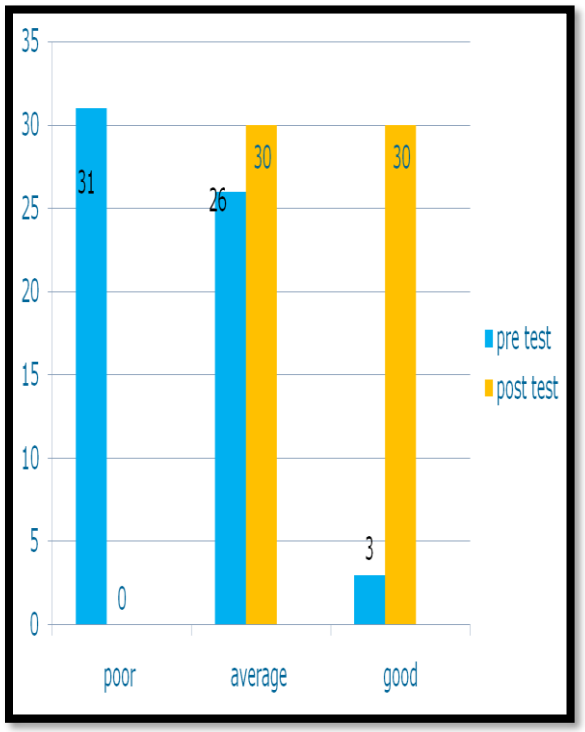
Knowledge score	Grade	Pre test and post test							
		Frequency		%		Mean score		S.D	
		Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
0-8	Poor	31	0	51.66	0	8.53	16.76	±4.3360	±3.836
9-16	Average	26	30	43.33%	50				
17-24	good	3	30	5%	50				

Mean, Standard Deviation (SD) and't' value of pre and post-test Knowledge scores on foot care of diabetic patients

Knowledge area	Mean score	Mean difference	S.D	df,	t,value
Pre test	8.53	8.23	±4.3360	59	15.33***
Post test	16.76		±3.836		

P<0.05* p<0.01**, p<0.001***

Column diagram showing the knowledge score of diabetic patients



Conclusion:

Educating the patient will help them to improve their knowledge regarding foot care, prevents furture complication and leads to safe diabetes mellitus. Structured teaching programme through pamphlet is considered an effective education strategy to improve the awareness and knowledge of type II diabetic patient regarding foot care.

RECOMMENDATIONS

From the findings of the present study, the following recommendations had been suggested.

- In much larger sample for broader generalization.
- In different settings, with a control group.
- A follow up could be carried out to find out the effectiveness in terms of retention of knowledge and revision need of teaching programme.
- A study can be conducted to assess the prevalence of diabetes mellitus and complications associated with it.

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