Annexure-XI

Maharashtra University of Health Sciences, Nashik

Inspection Committee Report for Academic Year 2025-26

Attendance Details/ Research Details/ Welfare Scheme Details

*****All report must be available on web site**

Name of College/Institute JIJAMATA COLLEGE OF NURSING, MAJALGAON Faculty NURSING

1	Attendance		Month-wise Biometric attendance to be uploaded by the college on College Website (No hard copies of attendance to be submitted to the University)
	Teaching Staff		
	Non teaching staff		
	Hospital Staff		
	UG &PG Students		
2	Project		
	Research Articles/Publications		ISSN:2583-049X
	Research Award(Student/Teacher)		
3	**Utilization of Student Welfare Schemes:-**		
	Earn and Learn Scheme		YES
	Dhanwantri Vidyadhan Scheme		NO
	Sanjivani Student Safety Scheme		NO
	Student Safety Scheme		NO
	Book Bank Scheme		NO
	Savitribai Phule Vidyadhan Scheme		NO
	Bahishal Shikshan Mandal Scheme		YES
4	**Sport participants/Other Activities:**		
	i) Information of Student(s) who participated University level & State level Avishkar Competition.		
	ii) Information of Student(s) who participated in Regional Sport Competition & State level Sports Competition.		
	iii) Information of Student(s)who participated in Cultural Activities.		200
	iv) Does the college have NSS Unit?		NO
5	Whether "Swaccha Bharat Abhiyan" implemented in College		YES

Here by I declare all relevant document uploaded are clear and visible on web site & are true as per my knowledge & Belief

Any Other, Please Specify:-

Date:-27/01/2025

PRINCIPAL
Jijamata College of Nursing
Majalgaon Dist. Beed

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A Study to Assess the Effectiveness of Foot Reflexology on Peripheral Vascular Circulation among Patients having Type-2 Diabetes Mellitus Admitted at Selected Hospitals of City

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Abstract

A study to assess the effectiveness of foot reflexology on peripheral vascular circulation among patients having type-2 diabetes mellitus admitted at selected hospitals of city.

Objectives

1. To assess the level of peripheral vascular circulation score on patients having Type-2 Diabetes Mellitus patients among experimental and control group.
2. To find out the effectiveness of foot reflexology on peripheral vascular circulation patients having Type-2 Diabetes Mellitus among experimental and control group.
3. To determine association between experimental pretest peripheral vascular circulation score on type 2 diabetes melitus patients with selected demographic variables.

Material and Methods

The sample for the study is peripheral vascular circulation patients having Type-2 diabetes mellitus. The study which was conducted among 60 patients having Type-2 diabetes mellitus before and after effectiveness of foot reflexology was given at selected hospital of city. Samples were selected with Non probability purposive sampling technique and pretest posttest control group design was used. The data analyzed in terms of achieving objective of the study using descriptive and inferential statistics findings.

Result

The findings of the study revealed that the majority of the subjects 14 (46%)in experimental group were between 10 (33.33%) subjects in control group in 46-55 years respectively. According to gender Maximum number of samples 10(33.33) % subjects were female and 20(66.66) % subjects were male patients in experimental group, 25(83.33) % subjects were males in control group.

According to family monthly income of experimental group maximum number of samples belongs to 5(16.66)% experimental group and control group 4 (13.33)% are in the Below 20001/-.

Occupation Maximum number of samples 11(36.66) % and others belongs to in experimental group 11(36.66) and control group 6(20) %. maximum number of samples 6 (20%) subjects in experimental group and 4 (13.33%) subjects in control group fall belongs to alcohol consumption. 4(13.33%) subjects in experimental group and 10 (33.33%) subjects in control group belongs to any others. Maximum number of samples 10 (33.33%) subjects in experimental group and 15 (50%) subjects in control group having both type of job standing and sedentary.

Family history of diabetes mellitus Maximum number of samples belongs to 25 (83.33%) subjects in experimental group and 25(83.33%) subjects in control group having previous family history of diabetes mellitus. pre-test Severe (0- 5)10(33.33) % subjects were having severe peripheral vascular circulation, 2(6.66%) subjects had moderate level of peripheral vascular circulation and 12 (40%) subject had mild type of peripheral vascular circulation, 6(20)% belongs to normal in control group whereas in posttest 2(6.66)% had severe, 15(50)% moderate, 4(13.33)% fall in mild and 9(30)% having normal in control group. mean score to check the foot reflexology on peripheral vascular circulation in experimental group was done by the paired t test. The pre-test mean score was 9.10 with standard deviation of 2.31. Mean score was 3.70 with standard deviation of 2.34. The test statistics value of the paired t test was 15.39 with p value 0.00.

The association between the pretest effectiveness of foot reflexology on peripheral vascular circulation among control group with selected demographic variables. The chi square value of the demographic variables, age, Family income per month, occupation, Specific habits, Type of job and family history of diabetes mellitus were not found statistically significant association at 0.05 level of significance.

Conclusion

The main conclusion of the present study is foot reflexology effective on peripheral vascular circulation patients having type 2 diabetes mellitus which is denoted by significant level of peripheral vascular circulation.

Keywords: Reflexology, Peripheral, Type-2 Diabetes, India

Introduction

"Disease is not an entity, but a fluctuating condition of the patient's body, a battle between the substance of disease and the natural self-healing tendency of the body".

Diabetes is a life style related condition due to an imbalance in handling glucose load and is not a disease. It is one of the several life style related chronic conditions with an end result of complications that are related to early aging changes resulting

in blockage of small and large arteries. Diabetes is a disease in which the body either fails to produce any insulin (Type 1, also called insulin dependent or juvenile-onset), or the insulin that it does produce is unable to adequately trigger the conversion of food into energy (type 2, also called non-insulin-dependent or adult-onset).

The term "type 2 diabetes" has replaced several former terms, including adult-onset diabetes, obesity-related diabetes, and non-insulin-dependent diabetes mellitus (NIDDM).

Type 2 diabetes mellitus is characterized by insulin resistance which may be combined with relatively reduced insulin secretion. The defective responsiveness of body tissues to insulin is believed to involve the insulin receptor. However, the specific defects are not known. Diabetes mellitus due to a known defect is classified separately. Type 2 diabetes is the most common type. In the early stage of type 2 diabetes, the predominant abnormality is reduced insulin sensitivity.

Type 2 diabetes is believed to develop when the receptors on cells in the body that normally respond to the action of insulin fail to be stimulated by it - this is known as insulin resistance. In response to this more insulin may be produced, and this over-production exhausts the insulin-manufacturing cells in the pancreas; there is simply insufficient insulin available; and the insulin that is available may be abnormal and therefore doesn't work properly.

Vedantha Maharshi (1983) in his Simplified Kundalini Teaching says Foot Reflexology helps Nature achieve homeostasis. Overactive glands or organs can be helped to return to normal. Conversely, if an organ or a gland is underactive, Reflexology can help return it to its normal functioning level. It is important to note here that the normalization action of reflexology is never one of opposite extreme. In other words, once homeostasis or a normal condition is achieved, working the area too much cannot unbalance it. Overworking can cause some minor reactions such as diarrhea or perhaps some nasal mucus being secreted (runny nose). These reactions though are cleansing poisons from the body. Succinctly, Reflexology cannot harm a system, it simply brings it back into balance. Reflexology helps Nature achieve homeostasis. Overactive glands or organs can be helped to return to normal. Conversely, if an organ or a gland is underactive, Reflexology can help return it to its normally functioning level. It is important to note here that the normalization action of reflexology is never one of opposite extreme. In other words, once homeostasis or a normal condition is achieved, working the area too much cannot unbalance it.

Every time we eat, our body converts food into glucose to fuel cells for energy. In order to make this process to work, insulin a hormone produced by pancreas must be present to transport glucose from the blood to cells. In people who produce little or no insulin, glucose build up in the blood instead, and results in Diabetes. Diabetes represents a spectrum of metabolic disorders, which has become a major health challenge worldwide.

The unprecedented economic development and rapid urbanization in Asian countries, particularly in India has led to a shift in health problems from communicable to non-communicable diseases. Of all the non-communicable diseases, diabetes and cardiovascular diseases lead the list (Mehta, 2011).

Public Health Foundation of India described that 44 lakh Indians don't know they are diabetic. Hence, the early identification of at-risk individuals and appropriate intervention to increase physical activity, bring about changes in dietary habits could reduce to a great extent help to prevent/ delay, the onset of diabetes and thus reduce the burden due to its associated complications in India (Mohan V and Pradeep R, 2010)31. A world free of the devastation of diabetes is not only an admirable vision, but is a vital necessity.

The figures are alarming and confirm that diabetes is one of the biggest health challenges facing India today. If we are to curb this growing health crisis, we will see a reduction in the number of people dying from diabetes and its complications, we need to increase awareness of the risks, bring about wholesale changes in lifestyle, improve self-management among people with diabetes and improve access to integrated diabetes care services.

Review of Literature

1. Shizuko Yamamoto, Patrick Mc Carty (1999).

Reflexology works directly with the muscles (myo) and connective tissues (fascia) in the body, helping to facilitate greater mobility in the body. This is especially important for people with diabetes, because elevated blood sugar causes a thickening of connective tissue, which affects the mobility and elasticity of the myofascial system. This may be experienced as stiffness in the muscles, tendons, and ligaments or as a decreased range of motion in the joints.

Reflexology Foot Massage can give a wonderful psychological boost to someone who is living with diabetes and striving to balance all the factors involved in maintaining a healthy lifestyle—proper nutrition, adequate exercise, blood glucose monitoring, appropriate use of medicines, and stress management. Massage therapy contributes an important piece to my diabetes regimen of care.

2. Kim KS (2003)

Studied the effect of foot reflexology on vital signs, general fatigue, foot fatigue, mood, and blood glucose levels in noninsulin dependent patients. The Research design of this study was nonequivalent control group quasi-experimental design. 18 patients were assigned to the experimental group, 24 patients to the control group. The data were obtained diabetic patients with ambulatory endocrine outpatients' clinic patients from 40 years old to 70 years old. Experimental groups received foot reflex massage for 30 minutes three times/week every other days, and Control groups did not received foot reflex massage. The dependent variables were blood pressure, pulse rate. Visual analogue scale for general fatigue, foot fatigue, mood and blood sugar levels. Data were analyzed with chi2test, T-test and repeated measure ANOVA at .0.05 level of significance. There was significant difference in the pulse rate, general fatigue, foot fatigue and mood according to group and time between pre and post foot reflexology. But this research did not prove to decrease blood sugar levels. Foot reflexology can improve pulse rate, general and foot fatigue, and mood status in diabetic patients. So, further research need.

3. Jang SH and, Kim KH. (2009)

Examined the effects of self foot reflexology on stress,

fatigue and blood circulation in premenopausal middle-aged women. A quasi-experimental nonequivalent control group, pretest-posttest design was used. Participants were 59 premenopausal, middleaged women in their 40s and 60s living in G city: 30 in the experiment group and 29 in the control group. Data were collected from May to August 2008. Self-foot reflexology was performed three times a week for 6 weeks for 40 min at each session. The results showed that self-foot reflexology was effective in reducing perceived stress and fatigue and helped blood circulation in premenopausal middle-aged women. Self-foot reflexology may be an effective nursing intervention in reducing perceived stress and fatigue and in improving blood circulation.

4. Dalal K *et al*. (2013)

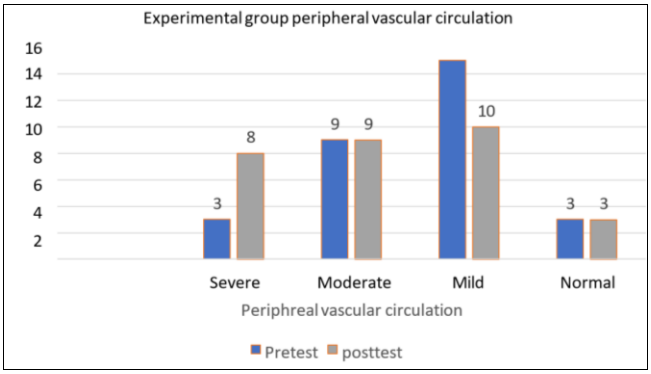
Explored the scientific basis of reflexology techniques, elucidation of the surface and subsurface features of reflexology areas (RAs) is crucial. In this study, the subcutaneous features of RAs related to the lumbar vertebrae were evaluated by swept source-optical coherence tomography (SS-OCT) in subjects with and without low back pain (LBP). Methods. Volunteers without LBP (n = 6 (male : female = 1 : 1)) and subjects with LBP (n = 15 (male : femal = 2 : 3) were clinically examined in terms of skin colour (visual perception), localised tenderness (visual analogue scale) and structural as well as optical attributes as per SS-OCT. From each subject, 6 optical tomograms were recorded from equidistant transverse planes along the longitudinal axis of the RAs, and from each tomogram, 25 different spatial locations were considered for recording SS-OCT image attributes. The images were analysed with respect to the optical intensity distributions and thicknesses of different skin layers by using AxioVision Rel. 4.8.2 software. The SS-OCT images could be categorised into 4 pathological grades (i.e., 0, 1,2, and 3) according to distinctness in the visible skin layers. Results. Three specific grades for abnormalities in SS-OCT images were identified considering gradual loss of distinctness and increase in luminosity of skin layers. Almost 90.05% subjects were of mixed type having predominance in certain grades. Conclusion. The skin SS-OCT system demonstrated a definite association of the surface features of healthy/unhealthy RAs with cutaneous features and the clinical status of the lumbar vertebrae.

5. E Ernst, P Posadzki, MS Lee Maturitas 68 (2), 116-120, 2011

Reflexology is a popular form of complementary and alternative medicine (CAM). The aim of this update is to critically evaluate the evidence for or against the effectiveness of reflexology in patients with any type of medical condition. Six electronic databases were searched to identify all relevant randomised clinical trials (RCTs). Their methodological quality was assessed independently by the two reviewers using the Jadad score. Overall, 23 studies met all inclusion criteria. They related to a wide range of medical conditions. The methodological quality of the RCTs was often poor. Nine high quality RCTs generated negative findings; and five generated positive findings. Eight RCTs suggested that reflexology is effective for the following conditions: diabetes, premenstrual syndrome, cancer patients, multiple sclerosis, symptomatic idiopathic detrusor over-activity.

1. Assessment of pretest & Post test score the effectiveness of foot reflexology on peripheral vascular circulation among experimental group. N=60

Experimental Group	Group	score	Pretest		Posttest	
			F	%	F	%
Peripheral vascular circulation	Severe	0-5	03	10	08	26.66
	Moderate	6-10	09	30	09	30
	Mild	11-15	15	50	10	33.33
	Normal	16-21	03	10	03	10



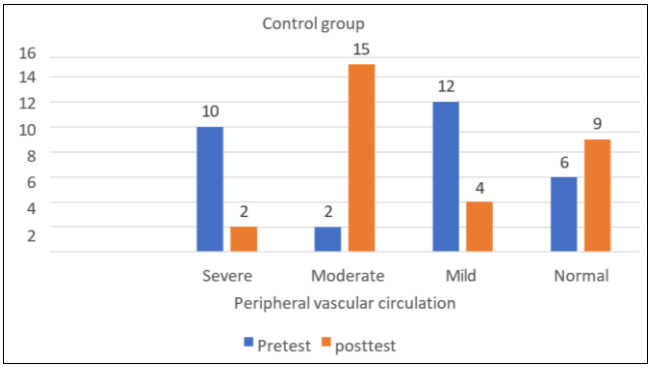
Graph: Assessment of pretest & Post test (Experimental group)

Result:

Above table shows that Assessment of pretest & Post test score the effectiveness of foot reflexology on peripheral vascular circulation during pre-test 3 (10%) subjects were having severe peripheral vascular circulation, 09 (30%) subjects had moderate level of peripheral vascular circulation and 15 (50%) subjecthad mild type of peripheral vascular circulation, 3(10)% belongs to normal in experimental group. Afterthe providing foot reflexology on type 2 diabetes mellitus patients experimental group posttest 08(26.66)% having severe,9(30)% had moderate,10(33.33)% had mild and 3(10)% belongs to normal.

2. Assessment of pretest & Post test score the effectiveness of foot reflexology onperipheral vascular circulation among control group. N=60

Control Group	Group	Score	pretest		posttest	
			F	%	F	%
Peripheral vascular circulation	Severe	0-5	10	33.33	02	6.66
	Moderate	6-10	02	6.66	15	50
	Mild	11-15	12	40	04	13.33
	Normal	16-21	06	20	09	30



Graph: Assessment of pretest & Post test (Control group)

Result:

Above table shows during pre-test Severe (0-5)10(33.33)% subjects were having severe peripheral vascular circulation, 2(6.66%) subjects had moderate level of peripheral vascular circulation and 12 (40%) subject had mild type of peripheral vascular circulation, 6(20)% belongs to normal in control group whereas in posttest 2(6.66)% had severe, 15(50)% moderate, 4(13.33)%fall in mild and 9(30)% having normal in control group.

The First objective was to assess the level of peripheral vascular circulation score on patients having Type-2 Diabetes Mellitus patients among experimental and control group.

Distribution of samples according to demographic variables of the patients with Type-2 diabetes mellitus among experimental and control group the maximum number of samples according to Minimum samples belongs to 0 (0%) subjects in experimental group and 0(0%) subjects in control group fall in 25-35 years. Maximum 14 (46%) subjects in experimental group and 10 (33.33%) subjects in control group fall in 46-55 years.

According to gender Maximum number of samples 10(33.33) % subjects were female and 20(66.66) % subjects were male patients in experimental group, Minimum number of samples 05(16.66) % subjects were females and 25(83.33) % subjects were males in control group.

According to family monthly income of experimental group maximum number of samples belongs to5(16.66)% and control group 4 (13.33)% are in the Below 20001/-, experimental group 10(33.33)% and control group 07(23.33)% are in the 20001-30000/-, experimental group 13(43.33%)and control group Minimum number of samples belongs to 10(33.33) % 30001-40000/-, experimental group 2(6.66)% and control group 09(30)%are in the 40000/-above.

According to occupation minimum number of samples in experimental group 1(3.3)% belongs to unemployed and in control group 1(3.3)% whereas in experimental group having 10(33.33)% belongs to business whereas the control group only 2(6.6)% and experimental group 5(16.66)% belongs to gov. employed and in control group 10(33.33)% aswellas in experimental group 3(10)% having private employed, in control group Maximum number of samples 11(36.66)% and others belongs to in experimental group 11(36.66) and control group 6(20)%.

According to specific habits minimum number of samples belongs to 10 (33.33%) subjects in experimental group and 6(20%) subjects in control group belongs to smoking

.10 (33.33%) subjects in experimental group and 10 (33.33%) subjects in control group fall belongs to tobacco chewing, Maximum number of samples 6 (20%) subjects in experimental group and 4 (13.33%) subjects in control group fall belongs to alcohol consumption. 4(13.33%) subjects in experimental group and 10 (33.33%) subjects in control group belongs to any others.

According to type of job Minimum number of samples 10(33.33%) subjects in experimental group and 10(33.33%) subjects in control group belongs to type of job was sedentary. 10 (33.33%) subjects in experimental group and 5 (16.66%) subjects in control group belongs to standing working pattern, Maximum number of samples 10 (33.33%) subjects in experimental group and 15 (50%) subjects in control group having both type of job standing and sedentary.

According to family history of diabetes mellitus Maximum number of samples belongs to 25(83.33%) subjects in experimental group and 25(83.33%) subjects in control group having previous family history of diabetes melitus and Minimum number of samples belongs to 5 (16.66%) subjects in experimental group and 5 (16.66%) subjects in control group not having family history of diabetes mellitus.

Above similar to present study by Barbara & Kevin Kunz (2007) [2] conducted randomized, controlled study on effectiveness of foot reflexology on type-2 diabetes mellitus. The study indicates that experienced significant improvement in the peripheral vascular circulation and Elderly participants in the study experienced considerable improvement in their ability to perform activities of daily living, increased psychosocial well-being and reduced pain. Some participants in the study experienced considerable improvement in their ability to perform activities of daily living, increased psychosocial well-being and reduced peripheral vascular diseases.

The second objectives to find out the effectiveness of foot reflexology on peripheral vascular circulation patients having Type-2 Diabetes Mellitus among experimental and control group.

Assessment of pretest & Post test score the effectiveness of foot reflexology on peripheral vascular circulation during pre-test 3 (10%) subjects were having severe peripheral vascular circulation, 09 (30%) subjects had moderate level of peripheral vascular circulation and 15 (50%) subject had mild type of peripheral vascular circulation, 3(10)% belongs to normal in experimental group. After the providing foot reflexology on type 2diabetes mellitus patients experimental group post test 08(26.66)% having severe,9(30)% had moderate,10(33.33)% had mild and 3(10)% belongs to normal.

Comparison of the mean score to check the foot reflexology on peripheral vascular circulation in experimental group was done by the paired t test. The pre-test mean score was 9.10 with standard deviation of 2.31. Mean score was 3.70 with standard deviation of 2.34. The test statistics value of the paired t test was 15.39 with p value 0.00.

The pre-test average score was 7.00 with standard deviation of 2.97. Average was 8.25 with standard deviation of 2.91. The test statistics value of the paired t test was 2.39 withp value 0.02.

Third objectives to determine association between experimental pretest peripheral vascular circulation score on type 2 diabetes mellitus patients with selected demographic variables.

Association Between the pretest effectiveness of foot reflexology on peripheral vascular circulation among experimental group with selected demographic variables. The chi-square value of the demographic variables, ($\chi 2$ =11.41) type of job were found statistically significant association with pre-test score at 0.05 level of significance.

Other demographic variables such as age, gender, Family income per month, occupation, Specific habits and family history of diabetes melitus were not found statistically significant association.

Above study contradicted to present study association between the pretest effectiveness of foot reflexology on peripheral vascular circulation among experimental group

with selected demographic variables.

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