Research Paper

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Effectiveness of Drumstick Leaves Extract to Reducing Blood Glucose Level Among Hyperglycemic Clients.

Nursing

KEYWORDS : DEA, Technical Efficiency, Performance, Peers , Management.

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ABSTRACT

WHO projects that diabetes will be the 7th leading cause of death in 2030. More than 80% of diabetes deaths occur in low- and middle-income countries. In 2014 the global prevalence of diabetes was estimated to be 9% among adults aged 18+ years. Healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use can prevent or delay the onset of type 2 diabetes. Objectives:TO assess the pre-test fasting and post prandial blood glucose sample.TO compare the post prandial blood glucose level among increased blood glucose samples before and after consumption of drumstick leaves. Methodology: Quantitative approach, pre -experimental design, 30 mothers Who's suffering with diabetic mellitus and who fulfils inclusion criteria are selected by using convenient sampling method. Results: the study shows the effectiveness of drumstick leaves on glucose level with the p value P < 0.05

Introduction

Diabetes mellitus is now recognized as a metabolic disorder of multiple etiology which is characterized by chronic hyperglycemia resulting from absolute or relative deficiency in insulin secretion/insulin action or both. The number of diabetics was 171 millions in 2000, which might increase to 360 millions in the year 20301. As the number of people with Diabetes mellitus (DM) multiplies worldwide, national and international health care budget increases.

Problem Statement

A study to assess the effectiveness of drumstick leaves extract to reducing blood glucose level among hyperglycemic Clients.

Objectives of the study

1) TO assess the pre-test fasting and post prandial blood glucose sample.
2) TO compare the post prandial blood glucose level among increased blood glucose samples before and after consumption of drumstick leaves.

Hypothesis

1: There is a significant difference between and after consumption of drumstick leaves.

2: There is a significant association between per-test and post-testing blood glucose level and selected demograpic variables.

Methodology

Research approach- Quantitative approach

Research Design- The pre -experimental design

Setting of study- Rural area, chettipet.

Population- Diabetic mellitus clients.

Sample- Who's suffering with diabetic mellitus and who fulfils inclusion criteria

Sample size- The sample size was 30.

Sampling Technique- Probability convenience sampling technique was used for the study.

Criteria for Sample Selection.

Inclusion criteria:

- Both sex (male and female)
- Client who are willing to participate.
- Age group 30 years and above
- Both literate & illiterate
- Client who know either English or Tamil.
- whose having diabetic mellitus

Exclusion criteria:

- Who are not willing to participate
- Client with complaints
- Client with certain problems.

Data Collection Tool

Part I- Demographic Data

Part II- Level of glucose in diabeties mellitus clients

Score interpretation

- 100 To 140gm/Dl -- Normal
- 141 To 160gm/Dl -- Moderate
- Above 160 Gm/Dl-- Severe

Analysis and Interpretation

Table-1 Frequency and percentage distribution of Demographic Variables among diabetic mellitus patient (n=30)

Demographic Variables	Experimental Group N= 15		Control Group N=15	
	N	%	N	%
1.Age				
A) 30-40 Years	6	40%	1	6.6%
B)41-50 Years	8	53.3%	3	20%
C)51-60 Years	1	6.6%	6	40%
D)Above 60 Years	-	-	5	33.4%
2.Education Status				
A)1-5 Std	3	20%	2	13.3%
B)6-10 Std	8	53.3%	6	40%
C)11-12 Std	2	13.3%	7	46.7%
D) Graduate	2	13.3%	-	-
3.Occupation				
A) Cooli Worker	2	13.3%	1	6.6%
B)Private Employee	6	40%	10	66.6%
C) Business	6	40%	2	13.3%
D) Others	1	6.6%	2	13.3%
4.Income				
A)1000-3000 Rupess	1	6.6%	1	6.6%
B)4000-5000 Rupess	2	13.3%	3	20%
C)5000-10,000 Rupess	6	40%	11	73.3%
D) Above 10,000 Rupess	6	40%	-	-
5.Type Of Family				
A)Joint Family	7	46.7%	5	33.4%
B)Nuclear Family	8	53.3%	10	66.6%
C)Single	-	-	-	-
D)Others	-	-	-	-

Table:2 pretest value

S.N	Level of glucose	Experimental group		Control group	
		N	%	N	%
1. 2. 3.	Normal Moderate Severe	0 03 12	0 20% 80%	01 01 12	6.6% 6.6% 80%

Table-3 Post- Test

S.N	Level of Glucose	Experimental Group		Control Group	
		N	%	N	%
1. 2. 3.	Normal Moderate Severe	10 03 02	66.6% 20% 13.3%	0 03 12	0 20% 80%

Table-4 Effectiveness of Drumstick Leaves in Reducing Hyperglycemia among Diabetic Mellitus in the Experimental and Control Group.

Diabetic Mellitus	Mean	Standard Deviation	Paired 't' Value
Experimental Group Pre Test	189.9	36.81	T=1.6538*** P<0.05 S
Post Test	154.2	31. 40	
Control Group Pre Test	194.86	80.65	T = 0.0004 P < 0.05 Ns
Post Test	200	46.83	

Major findings of the study

The Level of blood glucose after the administration of drumstick extract shows that drumstick extract was effective in reducing the blood glucose leval ($p<0.05$)

Conclusion

Drumstick leaves are the natural available sources which reduce the glucose level in diabetes mellitus clients

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