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Assess the Effectiveness on Application of Surgical Soak among Diabetic Client with Foot Ulcer

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ABSTRACT: the study was conducted to assess the effectiveness on application of surgical soak among diabetic foot ulcer.

KEYWORDS: Effectiveness, Surgical soak, Diabetic foot ulcer, Client with diabetic foot ulcer. Wound healing.

I. INTRODUCTION

Brunner and Suddarth's(2010) Diabetes mellitus is a chronic and metabolic disorder characterised by glucose intolerance. It is systematic disease that related to abnormal production, impaired insulin utilisation, (or) both. Diabetes can be caused by tool little insulin, resistance to insulin or both. There are three major types of Diabetes. Type one Diabetes is usually diagnosed in childhood. Type two Diabetes is far more common than type one and it usually occurs in adulthood. Type three Diabetes is gestational Diabetes that developed at any time during pregnancy in a women who does not have Diabetes **Arora P.N(2010)**. Diabetic foot ulcer is a raising health problem with rising prevalence of diabetes. It is most important cause of non –traumatic foot amputation. **Catherin,e Ann Ultrino (2011)** Diabetic foot ulcer are primarily due to neuropathy and or ischemia and are frequently complicated by infection. Up to 85% of Diabetic foot related problems are preventable through a combination of good foot care and appropriate education for patients and health care provider. to assess the level of wound healing in diabetic clients with foot ulcer. **Dugas(2014)**to determine the effect of surgical soak in term of increased wound healing score among diabetic clients with foot ulcer. Denise F.Polit, (**2013**) To find out the association between the level of wound healing among diabetic clients with foot ulcer and selected variables.

II. MATERIALS AND METHODS

Quasi-experimental research design was used to assess the effectiveness on application of surgical soak among diabetic client (60)with diabetic foot ulcer. Sampling is experimental (30) and control group(30), in this study non-probability sampling method was used . in this study description of instrument was used ,it consist of two part ,part-1 semi structured interview question,part-2 rating scale(bates Jensen wound assessment tool). In this study protocol for administrating surgical soak was used. The total number of variables is 60.In this study descriptive statistical analysis method was used to find out the mean score ,standard deviation of the score and percentage of the score the 't' test were adopted and interpreted with each score health progress results found among diabetic clients with foot ulcer.

III. RESULTS AND DISCUSSION

The effectiveness of Nursing care on patients with diabetic foot ulcer. Descriptive and inferential statistics was used to analyses the study result. the patient who met the inclusion criteria were selected and each of them were assessed with demographic variables vital parameters, each patient observation score related on assessment scale most of patient 30 (50%) were in delayed healing, 30 (50%) were in moderate healing of none them in good healing condition, in the experimental and control group of before surgical soak.



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Part-1: Demographic variables of patients with diabetic clients with foot ulcer. In this demographic variable 33% of them were in age group of 61 to 70yr in experimental group, in control group 40% of them in age group of 40 to 50 yr. 66.7% of male in experimental group, control group 73%, religion (Hindu) -experimental group 73%, control group 66%, educational status, educational status(illiterate)--experimental group 33%, control group30%, working pattern(moderate)-experimental group 60%, control group66%, monthly family income(5000) -experimental group50%, control group60%, area of residence(urban) -experimental group66%, control group60%, family history of diabetic mellitus-experimental group60%, control group66%.

Part: 2 Data on the distribution of sample according to information about the client disease condition: Duration of illness less than 1year-experimentalgroup 43%, control group1-5years50%, Duration of foot ulcer 1-5year-experimentalgroup 43%, control group46%, fasting blood sugar level 100-200(mg/dl)-experimental group 50%, control group-53, medication prescription (insulin)-experimental group 53%, control group- 60%, source of health information(health workers)—experimental group 73%, control group- 66%. **Part3:(a) Pre-test on wound assessment total score (WATS) levels in experimental group before surgical soak:**During the pretest in the experimental group before the administration of the surgical soak the wound assessment total score (WATS) level of clients (which indicates the wound healing status where 10 (33.3%), 5(16.7%) and 15(50.0%) in the low, moderate and high level.

Part3:(b) Post-test on wound assessment total score(WATS) levels in experimental group after surgical soak:During the post-test in the experimental group after the administration of the surgical soak the wound assessment total score (WATS) level of clients (which indicated the wound healing status where 20 (66.7%), 3(10.0%) and 7(23.3%) in the low, moderate and high levels.

WATS LEVEL	Pre-test(b	Pre-test(before ss)		
	No.	%	No.	%
Low (0-50)	10	33.3	20	66.7
Moderate(51-74)	5	16.7	3	10.0
High(>75)	15	50.0	7	23.3
TOTAL	30	100	30	100

Part3 :(c) Comparison of wound assessment total score (WATS) levels in experimental group before and after surgical soak

The comparison of wound assessment total score (WATS) levels of clients(which indicated the wound healing status) in the experimental group before and after surgical soak is presented. Before the surgical soak, the data analysis shows that there were 10(33.3%),5(16.7%) and 15(50.%) in the low, moderate and high levels respectively. After surgical soak the data analysis represents that there were 20(66.7%),3(10.0%) and7(23.3%) of wound healing score level after the administration of surgical soak.



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Figure: 1 Comparison of wound assessment total score (WATS) levels in experimental group

Part4:(a) Pre-test on wound assessment total score(WATS) levels in control group

The wound assessment total score (WATS) levels in the control group during pre-test assessment were 13(43.3%),6(20.0%) and 11(36.7%) clients in the low, moderate and high levels.

Part4:(b) Post-test on wound assessment total score (WATS) levels in control group

The wound assessment total score (WATS) levels in the control group during post-test assessment were 15(50.0%),5(16.7%) and 10(33.3%) clients in the low, moderate and high levels.

Part4: (c)Comparison of wound assessment total score (WATS) levels in control group before and after surgical soak

WATS LEVEL	Pre-test(before ss)		Post Test (after ss)	
	No.	%	No.	%
Low (0-50)	13	43.3	15	50.0
Moderate(51-74)	6	20.0	5	16.7
High(>75)	11	36.7	10	33.3
TOTAL	30	100	30	100

The comparison of wound assessment total score (WATS) levels of clients (which indicated the wound healing status) in the control group before and after surgical soak is presented. Before the surgical soak, the data analysis shows that there were 13(43.3%), 6(20.0%) and 11(36.7%) in the low, moderate and high levels respectively. After surgical soak the data analysis represents that there were 15(50.0%), 5(16.7%) and 10(33.3%) of wound healing score level after the administration of surgical soak.



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Figure:2 Comparison of wound assessment total score (WATS) levels in control group



The present study assessed the effectiveness of surgical soak among diabetic client with foot ulcer who attended the out patients department. The investigator analyzed the data that there was significant association between the demographic variable and wound assessment testing score level of the client. so the procedure of the surgical soak in the diabetic foot ulcer helps to prevent further complication like amputation and also helps to prevent mortality.

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