

# IS THE QUALITY OF LIFE, PSYCHOLOGICAL DISTRESS, AND DEPRESSION ARE INTERRELATED AMONG CHRONIC LEG AND FOOT ULCER.

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## Abstract

**Introduction:** Chronic leg wounds are one of the chronic physical illnesses the burden of these lesions is a challenge to the health care services. Various disturbances that occur due to chronic leg wounds are pain, day- to- day struggle, recurrence, difficulty in mobility, dressing, bandages, and frequent hospitalization. The stress produced by the physical complaints and immobility of the chronic leg wound have an impact on the quality of life. **Aim:** To assess the impact of chronic leg and foot ulcer and relationship between the quality of life, Psychological distress and depression. Data were collected by using Cardiff wound impact schedule (CWIS), Kessler's Psychological Distress Scale and Beck Depression Inventory-II .**Results:** Chronic leg and foot ulcer produce low quality of life, Severe Psychological Distress and Moderate Depression .The r value depicted that there is negatively moderate correlation between quality of life and Distress, depression. **Conclusion:** Impact of chronic leg and foot ulcer equally affects the physical and mental health of the person apart from all other factors, and also increases the risk of psychological distress and depression.

**Key words:** Quality of life, Psychological Distress, Depression, Leg and Foot ulcer

## INTRODUCTION

Chronic lower leg wounds are mostly recurrent, painful, and cumbersome. The quality of life of patients with chronic leg wounds is decreased, due to its negative impact on the physical, physiological, social, and psychological health. The World Health Organization reported that prevention of chronic illnesses is a vital investment to any country. Prevention of chronic diseases is essential to promote health and well-being. Raising the incidence and prevalence of chronic physical illness leads to increased risk of mental health burden on the community. India is the world capital for Type -2 diabetes mellitus. Diabetic foot ulcer is a devastating and life threatening complication of diabetes mellitus. It is the most common type of chronic leg wound in India. Extensive surgical management and poor self-care are the prime causes for negative psychosocial impact on the quality of life. Fear related to amputation is a source of psychological distress and depression. A cross-sectional survey was carried out among newly diagnosed diabetes mellitus patients in Kolkata. Totally 4.54% patients had diabetic foot ulcers. The Diabetic Voice reported that every 20 seconds, there is an amputation due to diabetic foot ulcer, and at the same time, 85% of all amputations were due to diabetic foot ulcer.

### Need for the Study

A study was conducted to determine possible differences in the severity of disease and quality of life (QoL) between a healed ulcer and an active (non-healed) ulcer among 1598 patients in Spain (Lozano and Sanchez 2014). The Venous Clinical Severity Score, Short Form 12 Health Survey, and Chronic Lower Limb Venous Insufficiency Questionnaire were used. Patients with active ulcers had a higher mean of clinical severity than patients with healed ulcers ( $P < 0.05$ ). Patients with venous leg ulcers were associated with high severity of the disease and poor quality life. In Romania, a cross-sectional survey was carried out on the quality of life in diabetic neuropathy among 21,756 patients (Bonder.C et al 2016). Of all, 3155 (14.85%) patients suffered diabetic foot ulcer and 783 (3.60%) underwent amputation. Diabetic foot lesions highly affected patients belonging to 80-89 years age group than younger age group (20-29 years). Poor quality of

life was manifested among patients with diabetic foot ulcer (mean-27.12) than those without ulcer(mean-48.15). The findings advocated for screening and informational processing programme to prevent diabetic foot ulcer.

A descriptive survey of the depression and psychological distress of chronic lower leg wounds in Mangalore (kirupa.P,Preetham rai and Shrinivasa Bhat.U 2015) . The results implied that the level of depression was 35.7% and distress was 56%. The conclusion focuses towards promotion of the mental health in patient struggling with chronic leg wounds.

There is a correlation between the quality of life and distress, depression among the impact of chronic leg and foot ulcer. This study conducted to find out the impact and relationship between these psychological parameters.

### Objectives

1. Assess the impact of chronic leg and foot ulcer in the quality of life, Psychological Distress and Depression.
2. To find out the correlation between the Quality of Life, Psychological Distress and Depression.

### MATERIAL AND METHODS

Non experimental descriptive survey design was adopted to find out the relationship between the psychological parameters. The sample were the patients those who fulfill the inclusion and exclusion criteria. The sample size comprises of 100 patients with chronic leg and foot ulcer. The informed consent was obtained from all the patients. The socio demographic profile, Cardiff wound impact schedule (CWIS), Kesslers Psychological Distress Scale and Beck depression Inventory-II were used for the data collection. The permission was obtained from the authors .Language validation of Malayalam and Kannada Version of translated instruments was done. Mean and standard deviation of the psychological parameters was assessed. Pearson product moment correlation was used to analyze the relationship between the psychological parameters.

## RESULTS

Impact of chronic leg and foot ulcer measured in the various levels of psychological parameters from wellness to diseases condition,

### Pre-test Level of Quality of Life, Psychological Distress, and Depression.

Pre-test level of quality of life, distress, and depression was analyzed by using the descriptive statistics such as mean and standard deviation.

**Table.1 Mean and SD on pre-test level of quality of life, psychological distress, and depression (n=100)**

Variables	Mean	Standard Deviation	Standard Error
Quality of life	156.12	30.46	3.14
Psychological distress	30.12	5.11	0.51
Depression	22.13	4.6	0.46

Table 1 depicts the pre-test level of mean for quality of life as 156.02 with SD of 31.38. The mean of psychological distress was 30.12 with SD of 5.11 and depression was 22.13 with SD of 4.6.

The pre- test assessment of patients suffering from chronic leg and foot ulcer implies that, there is low level of QoL, severe psychological distress, and moderate level of depression.

**Table .2.: Frequency and percentage distribution of the overall QoL ( n=100)**

Level of Quality of Life	Range	Frequency	Percentage
High quality of life	241-320	0	0
Moderate quality of life	161-240	41	41%
Low quality of life	1-160	59	59%

Table 2 depicts the distribution of patients in to different levels of overall quality of life. About 59 (59%) patients have low quality of life, 41 (41%) have moderate quality of life, and none have a high quality of life.

**Table 3: Frequency and percentage- wise distribution of psychological distress.****(n=100)**

Level of Distress	Range	Frequency	Percentage
Normal	1-20	2	2%
Mild psychological distress	21-24	12	12%
Moderate psychological distress	25-29	29	29%
Severe psychological distress	30-50	57	57%

Table 3. depicts the distribution of patients with chronic leg and foot ulcer in to various levels of psychological distress. About 2 (2%) patients showed normal level of distress, 12 (12%) had mild psychological distress, 29 (29%) had moderate psychological distress, and 57(57%) had severe psychological distress.

**Table 4 : Frequency and percentage- wise distribution of depression (n=100)**

Level of Depression	Range	Frequency	Percentage
Normal	1-10	0	0%
Mild mood disturbances	11-13	1	1%
Borderline depression	14-20	38	38%
Moderate depression	21-30	56	56%
Severe depression	31-40	4	4%
Extreme depression	40-61	1	1%

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Table 4 depicts the distribution of patients in to different levels of depression. One (1%) patient manifested mild mood disturbance, 38 (38%) manifested borderline depression, 56 (56%) manifested moderate depression, 4(4%) manifested severe depression, and 1 (1%) manifested extreme depression.

**Table 5: Correlation between baseline level of QoL, psychological distress, and depression**

(n=100)

sl.no	Variables of interest	r value	p value	Inference
1	Quality of life and Depression	-0.46 S*	0.00	Negative and Moderate Correlation
2	Quality of life and Psychological distress	-0.69 S*	0.00	Negative and Strong Correlation
3	Depression and Psychological distress	0.53 S*	0.00	Positive and Moderate Correlation

NS-No significance ( $P>0.05$ ) , S\*-Significant(  $P<0.05$ )

In Table 5, the Karl Pearson product moment correlation coefficient analysis was done between the variables of interest at 0.05 level of significance. The correlation coefficient obtained between the baseline level of quality of life and depression was -0.46 ( $P < 0.05$ ). The  $r$  value depicted that there is negatively moderate correlation between quality of life and depression. The  $r$  value obtained between the baseline level of quality of life and psychological distress was -0.69 ( $P < 0.05$ ). It depicted a strong negative correlation between quality of life and psychological distress. The correlation coefficient obtained between depression and psychological distress was 0.53 ( $P < 0.05$ ). The  $r$  value obtained shows positive and moderate correlation between psychological distress and depression. These findings were predicted by a randomized controlled trial conducted to assess the relationship between resilience, depression, and psychological distress in the 56 patients in Thailand (Songprakun W and McCann TV 2014). The findings showed that there was a positive relationship between depression and psychological distress ( $r = 0.71, 0.6 P < 0.00$ )<sup>102</sup>.

## CONCLUSION

The leg is not a vital organ, but it is an essential structure for mobility. Mental health and illness continuum describes the range of stages between the complete states of well - being to illness. Chronic leg and foot ulcer affects the health continuum from quality of life to depression..Chronic leg and foot ulcer affects the quality of life and increases the risk of psychological distress and depression. There is correlation between the quality of life, psychological distress, and depression. The mental health perspectives of this condition should not be ignored.

The chronicity of physical illnesses and associated care can be included in the nursing curriculum. Chronic physical illnesses and related mental health issues can also be included in the post graduate specialty curriculum in medical, surgical, and psychiatric nursing. Educational camps and campaigns can be conducted to create awareness among these patients to promote self - care and positive adaptation.

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