

## **“A Study To Assess The Effectiveness Of Informat On Booklet On Knowledge Regarding Quality Of Life Among Diabetic Patients With Diabetic Foot Ulcerat Selected Hosptals Bangalore’**

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### **Abstract**

#### *Background Of The Study:*

*Diabetic foot problems and foot ulcers are the most serious and costly complications and important cause of morbidity in diabetic people over the*

*3.To associate the level of knowledge regarding quality of life among diabetic patients with diabetic foot ulcer with their selected demographic variables*

#### *Hypothesis*

*H1: There will be a significant difference between knowledge scores among patients regarding quality of life before and after administration of information booklets.*

*H2: There will be an association between knowledge scores among diabetic patients with diabetic foot with their selected socio demographic variables.*

#### *Methods*

*The data will be analyzed byusing the descriptive and inferential Statistics. Frequency, percentage distribution to assess the demographic data of samples. Mean, standard deviation will be used to assess the knowledge regarding quality of life among diabetic patients with diabetic foot ulcer.*

*Paired 't' testto compare knowledge before and after administration of information booklet. Chi square will be used to find out association between knowledge scores with the selected socio demoraphic variables.*

#### *Results*

*The pretest mean knowledge score obtained, After administering PTP significant improvement in the knowledge among housewives was observed. Hence the research hypothesis stated that there will be significant difference between pre and post-test knowledge regarding was accepted. There was no statistically significant association found between the post test knowledge score with selected demographic variables.*

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## CHAPTER-I INTRODUCTION

"Every 30 seconds a lower limb is lost somewhere in the world as a consequence of diabetes".

(International diabetes Federation)

Diabetes mellitus is a group of metabolic diseases characterized by chronic hyperglycemia resulting from either inadequate insulin production, reduced tissue sensitivity to insulin or both. Chronic hyperglycaemia leads to diabetic complications including peripheral neuropathy, peripheral vascular disease, increased risk of infection and poor wound healing. The diabetic foot may be defined as a group of syndromes in which neuropathy, ischaemia and infection lead to tissue breakdown resulting in morbidity and possible amputation.<sup>1</sup>

This review of the literature will cover the nature and epidemiology of diabetic foot disease and how it may be prevented and managed with an emphasis on studies from Africa. The review will be illustrated with local experience of establishing a diabetic foot service at Queen Elizabeth Hospital in Blantyre.<sup>2</sup>

Health is the level of functional or metabolic efficiency of a living being. In humans, it is the general condition of a person's mind, body and spirit, usually meaning to be free from illness. The World Health Organization defined health in its broader sense in 1946 as a state of complete physical, mental, and social well-being and not merely the absence of disease. The endocrine system plays a vital role in the body. It is made up of glands that produce and secrete hormones.<sup>3</sup>

second most common cause of lower limb amputation. The risk of lower limb amputation is 15-46 times higher in diabetics than in persons who do not have diabetes mellitus. Foot complications account for 25% of all diabetic patients admitted in United States and Great Britain. (American academy of family physician. 200741).<sup>4</sup>

**Diabetic foot ulcer:** Diabetic foot problems and foot ulcers are the most serious and costly complications and important cause of morbidity in diabetic people over the years. Diabetic foot ulcers are sores that occur on the feet of people with type 1 & type 2 diabetes mellitus. The two main risk factors that cause diabetic foot ulcers are peripheral neuropathy, micro as well as macro ischemia. Peripheral neuropathy causes loss of pain or feeling in the toes, feet, legs and arm due to distal nerve damage and low blood flow supply, (atherosclerosis arteriosclerosis) very less oxygen and eventually death of tissues in feet occur. Diabetic Foot Society of India (2005) estimated that 84% of all lower limb amputations are preceded by foot ulcers in diabetic clients and every single day, 110 Indians have a foot or part of their leg amputated due to diabetic foot ulcer.<sup>5</sup>



## pathology

The American Diabetes Association<sup>88</sup> reported that all patients with type 2 diabetes should be screened for polyneuropathy upon diagnosis and at least annually thereafter. It is recommended that patients with diabetes should have a comprehensive foot exam, including an assessment of the skin, bone, muscles, circulation, and sensation. Upon examination, a decrease in deep tendon reflexes is often found. This may be the only indication of neuropathy changes in a patient who is asymptomatic.<sup>6</sup>

The health care provider may assess protective sensation in the feet by touching them with a monofilament (similar to a bristle of a hairbrush) or by pinprick. Patients who can't feel the touch have a loss of protective sensation and are at increased risk for foot injury. Fig. 2: Monofilament Test Vedhara K (2008)<sup>82</sup> conducted a qualitative study to assess patient perspectives on foot complications in type 2 diabetes mellitus, most participants were unsure of what are the causes of foot ulcer and complications of diabetic foot preventive measure. This study concluded that people with diabetes have different beliefs on diabetic foot complications that hampers foot self-care practices. So health care personnel need to explore the beliefs underlying patients' foot self-care practices.<sup>7</sup>

Hormones are chemical messengers created by the body. They transfer from one set of cells to another to coordinate the functions of different parts of the body. These hormones regulate the body's growth, metabolism (the physical and chemical processes of the body), and sexual development and function. The hormones are released into the bloodstream and may affect one or several organs throughout the body.<sup>8</sup>

They can be classified by their secretion as α cell secrete glucagon (increase glucose in blood), β cell secrete insulin (decrease glucose in blood), δ cells secrete somatostatin (regulates/stops α and β cells). The islet of Langerhans plays an imperative role in glucose metabolism and regulation of blood glucose concentration.<sup>9</sup>

Insulin is a hormone produced by the pancreas. Its function is to regulate carbohydrate and fat metabolism in the body. Insulin causes cells in the liver, muscle, and fat tissue to take up glucose from the blood, store it as glycogen in the liver and muscle. Insulin stops the use of fat as an energy source by inhibiting the release of fatty acids. Insulin is provided within the body in a constant proportion to remove excess glucose from the blood. When blood glucose levels fall below a certain level, the body begins to use stored sugar as an energy source through glycogenolysis, which breaks down the glycogen stored in the liver and muscles into glucose which can then be utilized as an energy source. When control of insulin levels fails, diabetes mellitus will result.<sup>10</sup>

There are three main types of diabetes: Type 1 diabetes: result from the body's failure to produce insulin, and presently requires the person to inject insulin. (Also referred to as insulin-dependent diabetes mellitus, IDDM for short, and juvenile diabetes.) Type 2 diabetes: results from insulin resistance, a condition in which cells fail to use insulin properly, sometimes combined with an absolute insulin deficiency. (Formerly referred to as non-insulin-dependent diabetes mellitus, NIDDM for short, and adult-onset diabetes.) Gestational diabetes: is when pregnant women, who have never had diabetes before, have a high blood glucose level during pregnancy. It may precede development of type 2 diabetes mellitus.<sup>11</sup>

changes produce tissue ischemia and skin changes that can cause ulcerations and infections and prevent healing. The interrelationship of all these factors as they contribute to lesion that results in gangrene and ultimately amputation.<sup>12</sup>

Foot problems constitute the primary cause of hospitalization of people with diabetes. Above 15% develop foot or leg ulcer. Amputation is common between 1994 and 1996 the number of diabetes related amputation who have had one amputation have 28% to 51% chance of needing a centralised one within five years.<sup>7</sup> The primary steps in the treatment of diabetes foot ulcer is wound closure elevation of the affected foot and relief of pressure are essential components of treatment and should be initiated at first presentation ill fitting footwear should be replaced with a postoperative shoe or another type of pressure relieving footwear.<sup>13</sup>

Rising prevalence of Diabetes Mellitus especially Type-2DM in Urban population is a serious concern. The countries with the largest number of people with diabetes are and will also be in the year 2025, India, China and the U.S.<sup>1</sup> With the increasing prevalence of diabetes especially in the middle age group populations who are commonly affected in India, the chances of developing micro & macro vascular complications are very high & it is going to bring enormous burden on the family, society & the healthcare providers involved in the management of diabetes due to high morbidity & mortality.<sup>14</sup>

During the last decades, developing countries have experienced an epidemiologic transition characterized by a reduction of infectious diseases and an increase of chronic degenerative diseases. This situation is generating tormenting public health, financial, and social consequences. Of relevance is type 2 diabetes mellitus and its chronic complications, particularly cardiovascular disease and diabetic nephropathy, because mortality of the patient with diabetes is in most instances related to these complications.<sup>15</sup>



the bottom of the feet.

- ☒ Keep the feet clean by washing them daily in only lukewarm water. Be gentle when bathing the feet using a soft washcloth or sponge. After washing moisturize the feet but not between the toes.
- ☒ Cut nail straight across and file the edges. Don't cut nail too short.
- ☒ Wear clean dry cotton socks. Don't wear thick or bulky tight elastic bands socks. And if feet get cold at night wear socks to warm it.
- ☒ Shake out the shoes before wearing. Use only good fitting shoes. Never walk barefoot ever in home.
- ☒ Keep the feet warm and dry.
- ☒ Keep the blood sugar level under control by therapeutic diet and insulin therapy.
- ☒ Don't smoke.<sup>16</sup>

The person with diabetes should do the foot examination daily. Use a water based moisturizer every day to prevent dry skin and cracking. Always cut the nail with a safety clipper cut them straight and never too short. Diabetic patients should wear comfortable shoes to be sure one can concern with podiatrist (foot doctor).<sup>17</sup>

The diabetic patients should do the regular exercise to improve the bone and joint health of feet, improve circulation. The diabetic patients should avoid the smoking because tobacco damages the blood vessels leads to poor circulation.<sup>18</sup>

For controlling the diabetes, patients should take therapeutic diet, medications, check the blood sugar level regularly, exercising regularly and maintain the good communication with the physician.<sup>19</sup>

"Uncontrolled diabetes can damage vital organs".

Diabetes mellitus is the most challenging health problem in this twenty first century. The having the highest number of diabetes in the whole world. A worrisome aspect is growing number of younger and other components of metabolic syndrome. Situation where increase of syndrome and formulate preventive strategies.<sup>.20</sup>

Diabetes is one of the most common chronic diseases affecting the population in India. It is estimated that there are 40 million persons with diabetes in India and this number is scheduled to rise up to 70 million by the year 2025.<sup>.20</sup>

DIABETIC FOOT- Describes the foot of a diabetic patient that has the potential risk of pathologic consequences including infection, ulceration, and destruction of deep tissues associated with neurological abnormalities, various degrees of peripheral arterial disease, and metabolic complications of diabetes in the lower limb. (Based on WHO definition.)<sup>.21</sup>

A disabling complication with this disease is foot ulcer development which lead to non-healing chronic wounds that are difficult to treat. Various treatment modalities have been reported for the management of diabetic foot ulcers ranging from the age old moist gauze dressing, bio engineered tissue skin substitutes, growth factors and negative pressure therapy. The diabetic foot is considered one of the most significant complications of diabetes representing a major worldwide medical, social and economic problem that mainly affects patient quality of life.<sup>.22</sup>



on diabetic foot.<sup>23</sup>

Diabetes poses a huge economic burden on India. In a recent paper shows that of five countries study, namely the US, the U.K, Finland, China and India, India spends the highest share of GDP on diabetes. But more than the economic impact, it is the social impact that is of greater concern. The age at onset of type II diabetes is progressively decreasing and the disorder now affects a significant number of adolescents and children. The onset of diabetes-related complications typically occurs 10-20 years after the disorder is diagnosed.<sup>24</sup>

In global scenario, the international federation estimated that the world-wide prevalence of diabetes in year 2003 is 94 million. The WHO has projected that this number will increase 300 million by 2025. According to Indian scenario; prevalence of diabetes mellitus in India has been growing by leaps and bounds. In the last 20 years there has been a threefold increase in prevalence of diabetes and now it is estimated that there are over 20 million of patients in India's diabetic population now ranks first in the world. 2010 in India the most recent assessment carried out by ICMR (Indian council of medical research) estimated that there are 66.5 million cases and 2.26 million cases reached with diabetes.<sup>25</sup>

Indian studies showed the prevalence of diabetes ranging from 2.1% in New Delhi to 12.4% in 2001 (predeepa et al 2002, Dwivedi and Krishna 1999). In southern Indian studies showed 40% increase in prevalence over a period of six years. In national urban diabetes survey in 2000, it was found that Hyderabad is having 16.6% of diabetes, Chennai 13.5% and cities of India presently 10.15% of population is having diabetes. Percentage of death is significantly higher among diabetes subjects 11.9% compared to non-diabetic subjects.<sup>26</sup>

coronary heart disease (CHD) and worse outcome with more and earlier death than Chinese, Japanese, Caucasians or black persons, new therapies than can reduce delay the progression of diabetes and for pride cardiovascular risk reduction. Thus, remain a major need in the therapeutic intervention against diabetes. On an average only 50% of people are diagnosed and only 15% receive treatment as regular basis. The average metabolic control achieved in stable type 2 diabetes patients regularly attending primary, secondary, and tertiary treatment centers are not even close to the standard recommended for diabetes care.<sup>27</sup>

A study was conducted at Chennai, on 3010 diabetes, the prevalence of micro vascular complications were retinopathy-23%, nephropathy-5.5%, and prevalence of CHD-1.4%<sup>(16)</sup> In a study comprising 720 type II diabetic, retinopathy was seen in 21.2%, microalbuminuria 41%, peripheral neuropathy in 15.3% CAD 7%, and PVD was seen in 7.4% of patient.<sup>28</sup>

In recent study in Chennai nearly 25% of population studied were unaware of a condition called diabetes, only 40% of participant felt that prevalence of diabetes was increasing and only 22% of population felt that diabetes could be prevented, through the awareness level increased with education only 4.2% of postgraduate and professional including doctors know that diabetes was preventable. The knowledge of risk factor was even low only 11.9% of study reported obesity and physical inactivity as a risk factor. Even among the known diabetes only 40.6% was aware that diabetes could lead to organ damage and complications, many people 46% with diabetes felt that it was a temporary phenomenon.<sup>29</sup>

There is a deep need for an increase in the awareness of diabetes

not sufficiently equipped with the knowledge to comprehensively manage their disease. Knowledge of diabetes is therefore essential for primary healthcare and other diabetic patients in order to prevent co-morbidities, which may compromise their lifestyles as well as increase the burden on public healthcare.<sup>.30</sup>

The researcher has observed the complications of diabetic patients during his working experience. The individuals who carry most of their weight and longer period uncontrolled diabetes tend to have a high risk of diabetes foot. So these factors instigated the researcher to perform a study to assess and impart the knowledge regarding diabetic foot and quality of life care among diabetic patients.<sup>.31</sup>

## CHAPTER-II

### OBJECTIVES

ulceratselectedhospitals.Bangalore."

#### OBECTIVESOFTHESTUDY

- ☒ Toassessthelevelsofknowledgeregardingqualityoflifeamongdiabetic patientswithdiabeticfootulcer.
- ☒ To assess the effectiveness of information booklet on knowledge regardingqualityoflifeamongdiabeticpatientswithdiabeticfootulcer.
- ☒ To associate the levelofknowledge regarding qualityoflife among diabeticpatientswithdiabeticfootulcerwiththeirselecteddemographic variables

#### OPERATIONALDEFINITIONS: Assess:

Determinethelevelsofknowledgeregardingqualityoflifeamongdiabetic patientswithdiabeticfootulcer

#### Knowledge:

Responses expressed by diabetic patients with diabetic footulcer regardingqualityoflife.

#### QualityofLife;

Itisthegeneral(physicalandpsychological&social)wellbeingamong

The diabetic clients with diabetic foot ulcer who are in the age group between 35 to 65 years.

Diabetic foot ulcer:

It's one of the complications of diabetes in which the soft skin commonly in big toes, ankles and feet down to the bones are broken and exposing the layers of underneath.

Information booklet:

A self information handbook which briefly explain about the measures to improve the quality of life among diabetic patients with diabetic foot ulcer.

HYPOTHESIS:

H<sub>1</sub>: There will be a significant difference between knowledge scores among patients regarding quality of life before and after administration of information booklet.

H<sub>2</sub>: There will be a significant association between knowledge scores among diabetic patients with diabetic foot with their selected socio demographic variables.

ASSUMPTIONS:

The study assumes that

1. Diabetic clients with diabetic foot ulcer may have some knowledge about quality of life

The study is limited to:

☒ Diabetic Clients with diabetes diabetic foot ulcer within the age group between 35 to 65 years.

☒ Sample size 40



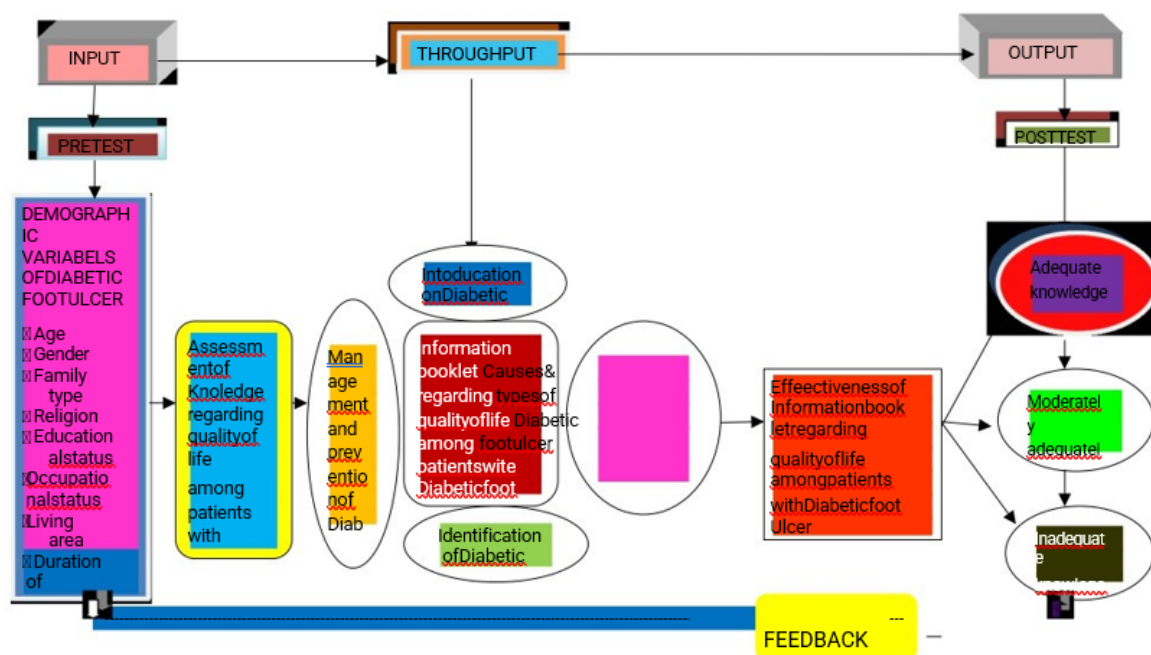
classification of its concepts. Concepts are words that describe objects, properties, events and are basic components of theory. The conceptual framework is a general amalgam of all the related concepts in the problem area.

Conceptual framework deals with abstraction or concepts that are assembled by virtue of their relevance to a common theme. Conceptualization is a process of forming ideas which is utilised and forms conceptual framework for development of research design. It helps the researcher by giving direction to go about entire research process.

The conceptual framework developed by the investigator for this study is based on the health promotion model proposed by Pender. Pender's model level framework was designed to be a complementary counterpart to models of health protection. Health promotion is directed at increasing a client's level of well-being.

This model focuses on three functions:

1. It identifies factors (e.g. demographic data) that enhance or decrease participation in health promotion.
2. Cues to action: Explains likelihood of a client participating in the health program.
3. Participation of peripheral diabetic neuropathy.





The present study aims "to assess the effectiveness of self Instructional Module on knowledge regarding Diabetic foot ulcer in among primary teaching in selected hospital Bangalore". The conceptual framework of the study is based on general system theory with input, throughput, and feedback. This theory was first introduced by Ludwig Von Bertalanffy (1968).

According to this theory, systems can be open or closed. All living systems can be open or closed. In that, there is continuous exchange of matter, energy, and information. Open systems have varying degrees of interaction with environment from which the system receives the environment in an altered stage affecting the environment. The feedback is the response of the system. The systems may be positive, negative, or neutral. In the present study, application of the concepts are as follows:-

#### INPUT:

The input refers to the information resources, energy or matter which enter the system. Input is the variable that contributes toward the variable that contributes toward the knowledge of diabetic foot ulcer regarding diabetic mellitus.

#### THROUGHPUT

It refers to the action needed to accomplish the desired task to achieve the same output. It is the self-instructional module on Diabetic foot ulcer quality and its management.

#### OUTPUT:

Output refers to end results or product of the system. In the present study, evaluation of the effectiveness of self-instructional module on Diabetic foot ulcer with diabetic

#### FEEDBACK:

It is the process whereby the output of the system is redirected to the output of the same system. If the knowledge is inadequate, the system input, throughput, and feedback must be re-evaluated, which is not included in the present study. The feedback is the environmental response of the system; feedback emphasizes on input and throughput to strengthen it.

All living systems have varying

## CHPTER-III

### REVIEW OF LITERATURE

A study was conducted on the prevalence of micro and macrovascular complications of type-I and type-II diabetes mellitus. The aim of this study was to research the micro and macrovascular complications in type-I and type-II. Total 168 hospitalized patients with diabetes mellitus were analyzed. Microalbuminuria was detected in 42% of patients with type-I and 47% of patients with type-II. Among that 34% of type-I diabetes mellitus and 78% of type-II diabetes mellitus patients were hypertensive. The Result of study shown that hypertension can be prevented in patients with type-II with weight reduction and control of blood pressure which is essential for the reduction of microalbuminuria as well as further micro- and macro-vascular complications of diabetes mellitus.<sup>23</sup>

A study was conducted on 773 cases of diabetes mellitus with a view to find out the incidence pattern of neuropathy as well as to ascertain its relationship with the degree and control of hyperglycemia. The result shown that a high incidence of neuropathy was observed even among those diabetics with good control of hyperglycemia. Apart from the clinical examination, sensitive parameters like the study of nerve conduction velocity and tests for autonomic dysfunction were employed. Peripheral neuropathy was 81% and autonomic neuropathy was 48% were more common than mononeuropathy was 5% and amyotrophic was 2%. In nearly 25 percent of the cases, subclinical neuropathy existed and was detected either by nerve conduction studies or autonomic function tests.<sup>24</sup>

shown that type-II is associated with more risk of diabetic complications. The objective of the study was to determine the relation between exposure to glycemia over time and the risk of macro vascular or micro vascular complications in patients with type-II diabetes. A Prospective observational design was used. 4585 white, Asian Indian, and Afro-Caribbean patients were included in analyses of incidence; out of these, 3642 were included in analyses of relative risk. The results showed that the incidence of clinical complications was significantly associated with glycemia.<sup>25</sup>

The study was conducted on diabetic foot ulcer and found that foot ulcer is one of the major complications of diabetes mellitus. It occurs in 15% of all patients with DM and precedes 84% of all lower leg amputation. Major increase in mortality among diabetic patients observed over the past 20 years is considered to be due to the development of macro and micro vascular complications including failure of the wound healing process.

The study was conducted to evaluate the baseline level of knowledge and awareness of diabetic patients about their disease and its complications. The result was awareness of complications of diabetes mellitus was low. The study included 1040 patients who were interviewed to know their knowledge, attitude and practices about diabetes using a structured questionnaire. The awareness about the disease in majority of diabetic patients was not adequate in this study and routine individual teaching and counseling represents an effective educational model.<sup>26</sup>

A cross sectional study was conducted on knowledge and practice regarding foot care in diabetic patients visiting diabetic clinic in Jinnah Hospital, Lahore. The aim is to assess the knowledge and practice among diabetic patients and 150 samples were selected. The findings showed that 29.3% had

A study was conducted to assess attitude about diabetes among diabetic patients in Western Nepal. The aim is to study the demographic details of diabetic patients and their attitude regarding diabetes. The study design was questionnaire and the sample size is 182 patients. The results suggested that the overall mean score is 4 and they concluded that educational interventions are needed to improve attitude of diabetic patients.<sup>28</sup>

A study conducted to assess the effectiveness of monofilament test to check diabetic neuropathy. The results revealed that 80% amputation in clients with diabetic are preventable by neuropathy testing, monofilament test is simple, reproducible and widely available and has a high sensitivity for the diagnosis of clinical or sub clinical neuropathy. Reported that the Semmes Weinstein monofilament examination is a significant predictor of the risk of foot ulceration and amputation in patients with diabetes mellitus, irrespective of type of diabetes mellitus all clients should be screened for risk of developing diabetic foot ulcer by monofilament test.<sup>29</sup>

A study conducted on large population based with foot disease in diabetic clients. Elderly diabetic clients are particularly burdened by foot disease, the main cause for foot disease are peripheral neuropathy which could be detected accurately by using Semmes Weinstein monofilament test. The prevention of diabetic foot ulcer in a primary care setting. Brief history and screening for loss of protective sensation via the Semmes Weinstein monofilament test may enable clinician to stratify patient based on risk and help determine the type of intervention like patient education, glycemic control, smoking cessation, diligent foot care.<sup>30</sup>

A study was conducted on assessing the knowledge and attitude of



complications were least suggested by doctor.<sup>31</sup>

A study was conducted to assess the knowledge and practices among the diabetic patients regarding footcare. About 29.3% respondents had good knowledge, 40% had satisfactory knowledge and 30.7% had poor knowledge about footcare. Whereas only 14% respondents had good practices for footcare, 54% had satisfactory practices and 32% had poor practices. About one third of diabetic patients had poor knowledge about footcare and only very few patients had good practices for footcare. Literacy has significant association with the knowledge and practices related to footcare in diabetic patients.<sup>32</sup>

A study was done to assess the disease knowledge in patients attending a diabetic foot clinic. All diabetic patients attended the clinics because of their high-risk status for the development of diabetic foot infection or ulcers. All received ongoing foot-specific patient education. Only approximately 80% were able to respond appropriately to simple questions related to the care of their "at-risk" feet. This simple quality initiative reinforces the notion that patients with diabetes who are at risk for the development of diabetic foot ulcers should receive ongoing foot-specific patient education.<sup>33</sup>

A study was done to determine knowledge and practice of footcare in people with diabetes. The mean knowledge score was 6.5 out of a possible 11. There was a positive correlation between the score and received advice on foot care. Deficiencies in knowledge included the inability to sense minor injury to the feet (47.3%), proneness to ulceration (52.4%) and effect of smoking on the circulation (44.5%). 24.6% (20.1-29.2) never visited a chiropodist, 18.5% (14.2-

22.7) failed to inspect their feet and 83% (79.1-86.9) did not have their feet measured when they last purchased shoes. The results highlight areas where

education sessions improved their foot care knowledge over the course of the program. After the second session, the mean improvement over baseline was 14%. These patients also reported improved satisfaction with foot care; mean improvement was 33%. Intensive education program improved the foot care knowledge and behavior of high-risk patients.<sup>35</sup>

The retrospective study conducted in Tanzania on importance of transfer of knowledge and foot complication. In 2004-2007 3860 people screened to have risk for foot ulcer and foot care education was given to all clients and reassessed after 6 months, results revealed that 29% had amputation. The study concluded that there was a significant increase in the knowledge level after education program among 59 diabetic clients in San Francisco to assess the efficacy of education on foot complication. Analysis of the data showed statistically significant increase in foot care knowledge after the teaching session compared with before. (69% to 85%  $p < 0.001$ ) study concluded that clients knowledge on foot care was improved after an education program.<sup>36</sup>

The study was conducted to assess the knowledge and practices regarding foot care. Only one-third of the patients had received diabetic education. The average score in the educated group was  $42 \pm 0.4$  versus  $23 \pm 7$  in the non-educated group ( $p = 0.0001$ ). The best results were obtained in educated and younger patients. Our findings demonstrate that elderly diabetics can benefit from an education program and prove a real insufficiency in current education of elderly diabetics.<sup>37</sup>

The study was conducted to assess the knowledge of the diabetic patient on foot care research was to evaluate how much the clients that frequently went to the Diabetes Ambulatory knew about their own illness and the foot care. So the conclusion that could be taken is that the clients knew about the care that they



A study was conducted to assess the effectiveness of patient education on the prevention of foot ulcers in patients with diabetes mellitus. Two reviewers undertook data extraction and assessment of study quality independently. Four trials compared the effect of intensive with brief educational interventions; two of these reported clinical endpoints. One study involving high-risk patients reported a reduction in ulcer incidence and amputation rate. Weak evidence suggests that patient education may reduce foot ulceration and amputations, especially in high-risk patients.<sup>39</sup>

An observational study conducted in Europe on quality of care provided to diabetic clients. In this study four main health behaviors were identified. Those at low risk of developing foot complications are control of blood glucose levels; attendance at annual foot screening examination; reporting of any changes in foot health immediately; and the engagement in a simple daily foot care routine. Study concluded that foot health measures should be followed strictly to reduce the occurrence of ulcer.<sup>40</sup>

A descriptive study conducted in Calcutta found that high prevalence of neuropathy promotes recurrence of foot ulcers. As well as hyperglycemia is a major contributor factors for foot problems. Regular inspection of the feet for signs of neuropathy and other risk factor would play a major role in the prevention of foot ulcer. Patient education for foot care and early institution of preventive measures by the nurses in view of the high prevalence of neuropathy test will help in reducing the morbidity and economic burden from diabetic foot.<sup>41</sup>

A experimental study conducted in Saudi with 41 diabetic clients (study group=21, control group=20) to assess the impact of a diabetic foot care education programme on limb amputation rate. The rate of amputation was 70% in control group and 61.9% in study group after supplementation of foot care

A quasiexperimental study conducted to assess the effect of weight bearing exercise on diabetic foot ulcer at Canada. 10 patients (88.9%) were randomized to ankle exercise treatments and nine (50%) continued routine care. The result of the study showed that 60% of patients who were projected to ankle 17 exercise had no risk of foot ulcer whereas in control group 52% had high risk of foot ulcer, study concluded that foot exercise also an element to prevent foot ulcer and it can be used in foot care strategies.<sup>.43</sup>

A preexperimental study conducted among 60 diabetic clients in Brazil to evaluate the impact of foot care on risk for foot ulcer. On routine visit standardized education on foot care given, analysis showed that 8.7% had a regular footwear, 65% done a foot inspection, 28.3% had done an additional inspection, 77% did creaming, 83% done an nail care, 77% inspected shoe, 95% had avoided barefoot walk, risk for foot ulcers show only 30%, the result suggested that regular foot care is essential to prevent foot ulcer.<sup>.44</sup>

An experimental study conducted with 53 diabetic clients to evaluate the effectiveness of foot care education. After 1 year the ulcer incidence rate was 38.1% compared to 51.15 in the control group, after two years the participants in the intervention group had a 75% chance of being ulcer free, compared with 61% in the control group and these results are more evident to show the importance of foot care education in prevention of foot ulcer.<sup>.45</sup>

The study was conducted retrospectively to evaluate the self-care behavior on foot care among 302 diabetic clients in Taiwan. 155 patients received group education on foot care, 147 patients did not receive any education both the group had showed inappropriate self-care behavior on foot care the study results revealed that giving disease specific information such as twice a day foot wash, avoiding barefoot walk can prevent development of foot ulcer.<sup>.46</sup>

The applied educational intervention had improved their knowledge and practice about diabetic foot care ( $p < .001$  and  $p = .001$ ). In conclusion, the findings of the study showed that a simple face-to-face education is an effective and applied method to improve the knowledge about foot care.<sup>47</sup>

The qualitative study conducted in India to assess the patient perspectives on foot complication in type 2 diabetes mellitus. 8 samples were selected. Most participants were unaware of foot ulcer, causes and preventive measures, complications of diabetic foot. Findings of the study concluded that people with diabetes have different beliefs on diabetic foot complications that hamper foot self-care practices. So healthcare personnel need to explore the beliefs underlying patients' foot self-care practices to prevent foot ulcer.<sup>48</sup>

A study was conducted among 59 diabetic clients in San Francisco to assess the efficacy of education on foot complication. Analysis of the data showed a statistically significant increase in foot care knowledge after the teaching session compared with before (69% to 85%,  $p < .001$ ). The study concluded that clients' knowledge on foot care was improved after an education program.<sup>49</sup>

A cross-sectional study with 148 diabetic clients to assess the knowledge and practice of foot care in Iranian people. Non-literate patients were the least knowledgeable ( $p = .008$ ), 56% not aware of the effect of smoking on the feet, 60% failed to inspect the feet and 42% did not know how to trim their nail, 62% were followed the high-risk practices. The results revealed that inadequate knowledge has a relationship with poor self-care among Iranian people.<sup>50</sup>

A cross-sectional survey in Chandigarh on 60 diabetic clients to assess the existing knowledge and practice on foot care and complication of diabetes mellitus. The study revealed that foot care was done by 63.3%, client-oriented

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screening footcareeducationprogram among403diabeticclientsinUSA.The ulcerincidencewasdecreasedfrom 66.5%to43%amongthestudygroupafter thefootcareeducationprogram.Sothestudyconcludedthatfootscreeningand footcareiseffectiveinreductionoffootulcer.<sup>52</sup>

## CHAPTER IV

### METHODOLOGY

booklet procedure for data collection tool development and plan for data analysis.

#### RESEARCH APPROACH:

Research approach used in the study was evaluative approach.

#### RESEARCH DESIGN:

The research design adopted for the present study is pre-experimental design. One group pre-test and post-test design. The design chosen for the study is presented in the figure as

GROUP:	Pre-test(day1)	Intervention	Post-test(day8)
patients with Diabetic foot ulcer.	O <sub>1</sub>	X	O <sub>2</sub>

Key: O<sub>1</sub>-Assessment of level of knowledge (pre-test)

X-Informational booklet on quality of life among patients with Diabetic foot ulcer (Intervention)

O<sub>2</sub>-Assessment of level of knowledge (posttest)

Bangalore.  
VARIABLES

Independent variable: The information booklet regarding quality of life among diabetic patients with diabetic foot ulcer is the independent variable in the study.

Dependent variable: The knowledge regarding quality of life among diabetic patients with diabetic foot ulcer is the dependent variable in the present study.

EXTRANEOUS VARIABLES:

It consists of Demographic variables include Age Gender Religion Place of living Occupational status, Educational status, duration of diabetic mellitus, source of information.

POPULATION:

The population referred to as the target population which represents the entire group or all elements like individuals or objects to meet certain criteria for inclusion in the study. The target population of the present study is diabetic patients with diabetic foot ulcer.

SAMPLE:

Sample is a subset of a population selected to participate in the study the sample for present study is diabetic patients with diabetic foot ulcer attending ..... hospital bangalore.

SAMPLE SIZE:

The sample size consists of 40 diabetic patients with diabetic foot ulcer



convenient sampling technique was adopted to elect the samples based on the inclusion criteria.

#### SAMPLING CRITERIA

Inclusion Criteria: The school teachers who are

- ☑ Working in primary and upper primary section.
- ☑ Willing to participate in the study.

☑ Available during the time of data collection.

Exclusion Criteria:

- ☑ Are not interested to be a part of study.
- ☑ Does not understand English or Kannada.
- ☑ Are working in high school.

#### SELECTION AND DEVELOPMENT OF TOOL:

Based on the objectives of the study, a self-administered questionnaire was prepared in order to assess the knowledge of the school teachers regarding Dyslexia and its management in children. The main strengths behind developing the tool was, related review of literature, based on the opinions and suggestions of experts, discussions with colleagues and personal experience in clinical settings, book journals, internet etc. All of them provided relevant data necessary to construct the tool on dyslexia and its management.

#### DESCRIPTION OF THE TOOL USED IN THE STUDY:

## DEVELOPMENT OF SELF INSTRUCTIONAL MODULE

Self instructional module regarding Diabetic foot ulcer with diabetic mellitus patients and its management was developed based on review of literature. The self-instructional module was given for Diabetic foot ulcer. It includes the definition, types, causes, clinical features, assessment, management and prevention of Diabetic foot ulcer. At the end of session, clarification was done.

☑ Preparation of first draft of information booklet.

☑ Content validity by experts.

☑ Editing of information booklet.

☑ Preparation of final draft of information booklet.

TESTING OF INSTRUMENT:

Content validity:

Content validity of the tool obtained on the basis of opinion from different experts in the field of diabetic foot care, patients medicine, paediatric nursing, and other nursing department. Necessary changes were made in the structured knowledge questionnaire and then the tool was finalized.

Reliability:

Reliability of the research instrument is defined as the extent to which the instrument yields the result on repeated measures. It is consistency, accuracy, precision, stability, and homogeneity. The reliability of the tool was established by using split-half method and the tool was found to

footulcerwithdiabeticmellitespatientswererandamelyselectedfrom selected from hospitalandthepre-testisadministeredusingstructuredquestionnaireon knowledgeregardingdiabeticfootulcerwithdiabeticmellitesisadministred usingstructerdquestionnaireonknowledgeregardingDiabeticfootulcerwith diabeticmellitesqualitymanagement. ThentheseSelfInstructionalModuleisgiven onevaluatethesameday. After7daysthepost-testwasconductedbyusingthe samequestionnarietoevaluate theeffectivenessofself-Instructionalmodle. Thesubjectedselectedforthepilotstudywerenotincludeinthemainstudy.

#### PROCEDUREFOR DATA ANALYSIS:

Inthepresentstudy dataobtainedwereanalysedonthebasisofthe objectivesofthestudyusingdescriptiveandinferentialstatistics. Amaster datasheetwaspreparedwithresponsesgivenbysubjects. Descriptivestastics suchasmean, meanpercentage, Standarddeviationandinferentialstastics suchasparied'ttestandChisquaretestwereusedtoanalyseandinterpretthe data.

Sl.NO	STATISTICALANALYSIS		DESCRIPTION
1. DATA	ANALYSIS	METHOD	
	<u>Descriptivestat frequency stastistics</u>	percentage distribution, mean and standard Devitation	<u>Distribution ofDiabeticfoot ulcerpatientsaccording to thedemographivariabelesto assess the knowledge level ofDiabeticfootcarequality anditsmanagement.</u>

		<u>Chisquare</u>	Association of post-test knowledge score of Diabetic foot care ulcer with diabetic mellitus and its management their selected demographic variables.
--	--	------------------	--

## SCORE-INTERPRETATION

Each item has an option with only one correct response. The score of one (1) was allotted to each correct response and a score of zero (0) was given to wrong response. Thus the total knowledge questionnaire has a minimum of score zero and a maximum of score 35 and it used for the assessment of knowledge in pre and post-test.

## FINAL SCORING

Knowledge questionnaire is subdivided under following aspects:

<u>Level of knowledge</u>	<u>Score</u>
<u>Inadequate knowledge</u>	
<u>Moderate knowledge</u>	
<u>Adwquate knowledge</u>	

## ETHICAL CONSIDARATION:

Consent was obtained from the sample those who are willing to participate in the study.

SCORE-INTERPITATION  
Each item has

#### SAMPLING CRITERIA

Inclusive criteria: The clients

1. Who are diagnosed as diabetes with foot ulcer between the age group 35 to 65 years.
2. Who can understand Kannada and English
3. Who are willing to participate in the study.

Exclusive criteria:

1. Who are less than 35 and more than 65 years.
2. Who have other co-morbidities.
3. Who are not willing to participate in the study

#### CHAPTER-VI RESULTS

Analysis is the process of categorizing, ordering, manipulating and summarising the data in answer to research questions. The purpose of analysis is to reduce data to indelible and interpretable form. The relations of research problems of research problems can be studied and tested.

The chapter deals with the systematic presentation of the analysed data followed by the interpretation of the data. The collected information is organized, tabulated, analysed and interpreted using descriptive and inferential statistics. Based on the objectives of the study, the findings were organised in the following sections.

#### OBJECTIVES

☒ To associate the level of knowledge regarding quality of life among diabetic patients with diabetic foot ulcer with their selected demographic variables

### Presentation of data

The analysed data has been organised and presented in the following sections.  
Section 1: Dealt with sociodemographic variabels of diabetic patients

Section 2: Dealt with level of knowledge regarding quality of life among diabetic patients with diabetic foot ulcer.

Section 3: Dealt with effectiveness of informational booklet regarding quality of life among diabetic patients with diabetic foot ulcer.

Section 4: Dealt with association between post-test knowledge scores of diabetic patients with diabetic foot ulcer with their selected sociodemographic variables.

## SECTION-A

### SOCIODEMOGRAPHIC VARIABELS OF DAIBETIC PATIENTS WITH DIABETIC FOOTULCER

Distribution of sample according to age.

N=40

Sl. No	Variable	Frequency(F)	<u>Precentage%</u>
1	<u>Age in years</u>		
	a. 35-45 years	22	55%
	b. 45-5 years	14	35%
	c. 55-65 years	04	10%



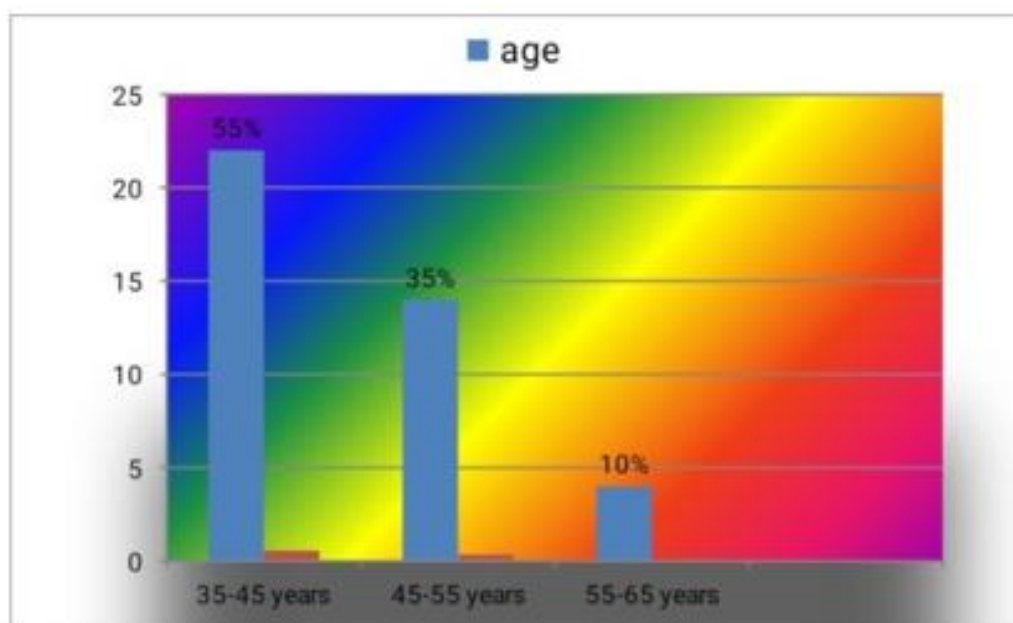


Figure2:Bar diagram showing the distribution of sample according to age

### Distribution of sample according to gender

N=40

Sl.NO	Variable	Frequency(F)	Percentage(%)
2	Gender		
	a.Female	12	30%
	b.Male	28	70%

Table2:The above table shows the gender of diabetic patients with diabetic foot ulcer majority 28(70%) were male and 12(30%) were females

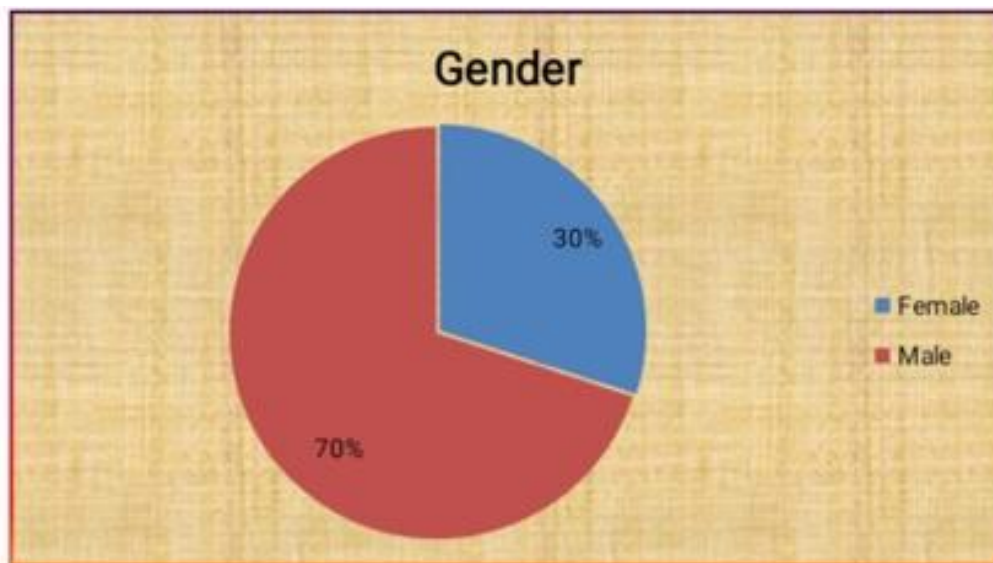


Figure: PaiDiagram showing the distribution of sample according to gender

Distrubution of sample according to religion.

N=40

Sl.NO	Variabels	Frequency(F)	Percentage%
3	Religion		
	a)Hindu	10	25%
	b)Muslim	17	42%
	c)Christian	13	32%

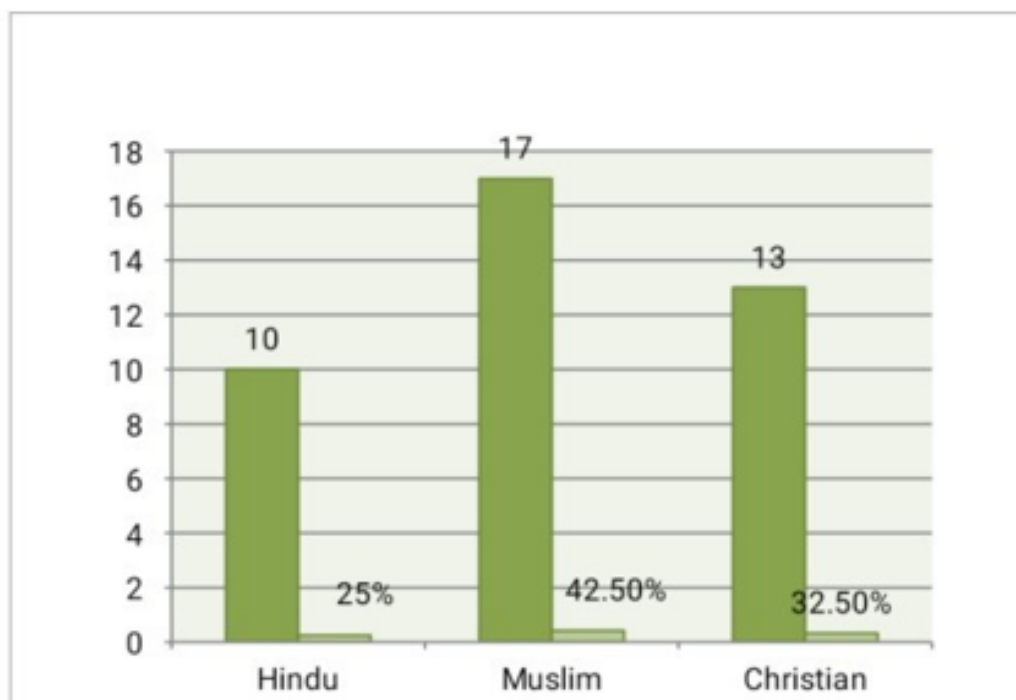


Figure3: Bardiagram showing the distribution of sample according to religion.

Distribution of sample according to Place of living

N=40

Sl.NO	<u>Variabels</u>	Frequency(F)	Percentages
4	<u>Place of living</u>		
	a. <u>Urbanaera</u>	20	50%

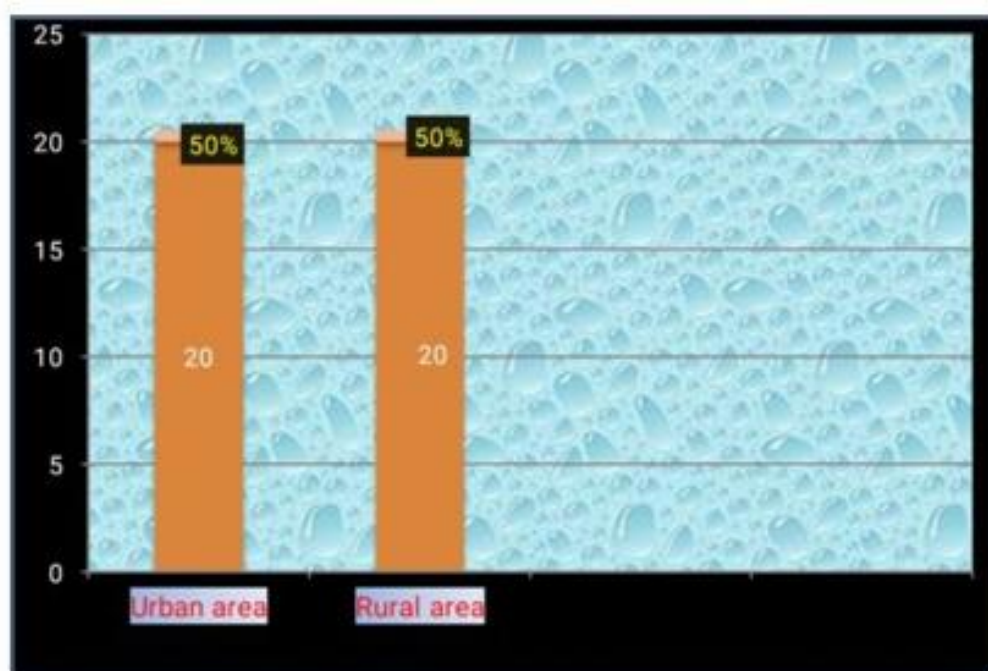


Figure3:Bar diagram showing the distribution of sample according to place of living

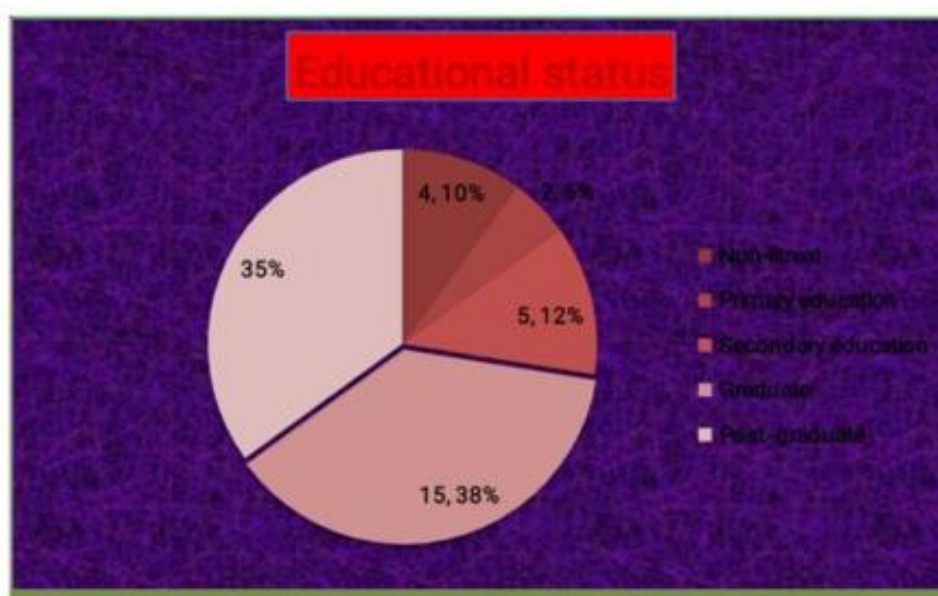
#### Distribution of sample according to Educational status

N=40

Sl.NO	variables	Frequency	Percentage%
-------	-----------	-----------	-------------

5	<u>Educationalstatus</u>		
	<u>a Nonliterate</u>	04	10%
	<u>b.Primaryeducation</u>	02	5%
	<u>c.Graduate</u>	05	12.5%
	<u>d.Post-graduate</u>	15	37%

Table6:showsthedistrubutionofsampleaccordingtotheirEducationalStatus, majority15(37%)completed Post-graduationnonlitreat04(10%)12(5%)4(10%) werenonliterateand 02(5%)completedprimaryeducation.



+

N=40

Sl.NO	variable	Frequency(F)	<u>Percentages(%)</u>
6	<u>Occupationalstatus</u>		
	<u>a.self-employed</u>	8	20
	<u>b.Private-employee</u>	8	20
	<u>c.Govt-employee</u>	12	30
	<u>d.Bussiness</u>	12	30

Table7: showsthedistrubutionofsampleaccordingtotheir occupational Status ,majority12(30%),12(30%), belongs to governmentand bussiness employees,and8(20%),8(20%)belongstoselfandprivateemployees.



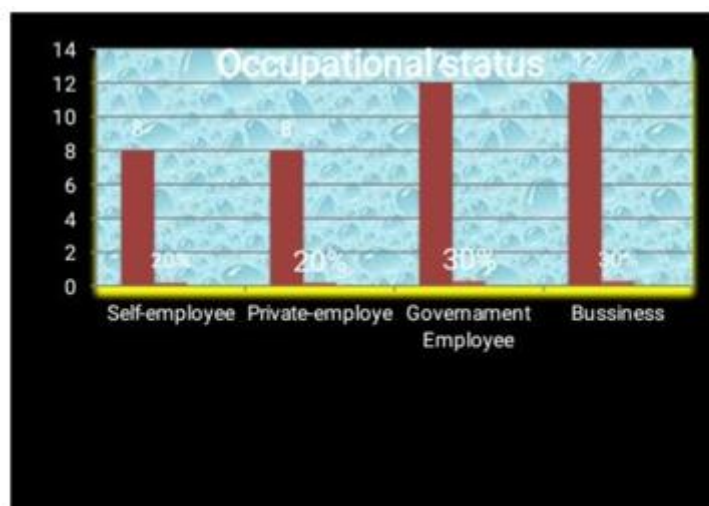


Figure 7: cone diagram showing the distribution of sample according to their occupational status.

#### Distribution of sample according to the duration of Diabetic mellitus

S.NO	variable	Frequency(F)	Percentag%
7	<u>Duration of Diabetic mellitus</u>		
	<u>a. Less than 5 years</u>	19	47.5%
	<u>b. More than 5 years</u>	21	52.5%

Table 8: shows the distribution of sample according to duration of Diabetic mellitus, majority 21 (52%) had history of diabetes more than 5 years and 19 (47%) had history of diabetes less than 5 years.

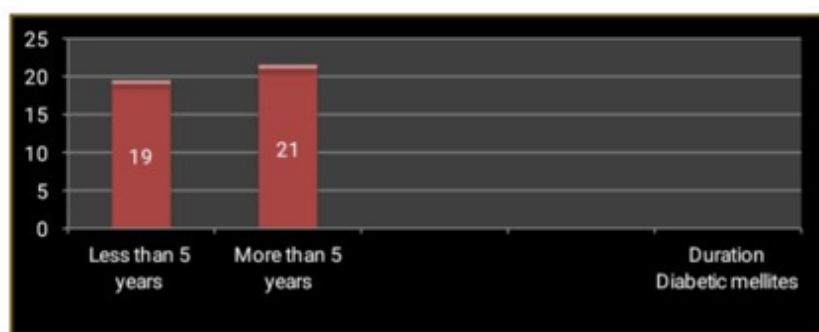


Figure 8: cone diagram showing the distribution of sample according to duration of Diabetic mellitus.

Distribution of sample according to source of information about Diabetic foot ulcer and its management.

s.no	variable	frequency	<u>Percentage(%)</u>
8	<u>Source of information</u>		
a.	<u>Family and friends</u>	06	15%
b	<u>Mass media</u>	13	32.5%
c	<u>Health personnel</u>	21	52.5%

Table 9: show the distribution of sample according to source of information, majority 21 (52%) had received information from Health personnel, 13 (32.5%) had received information from Mass media, 06 (15%) had received information from Family and friends.

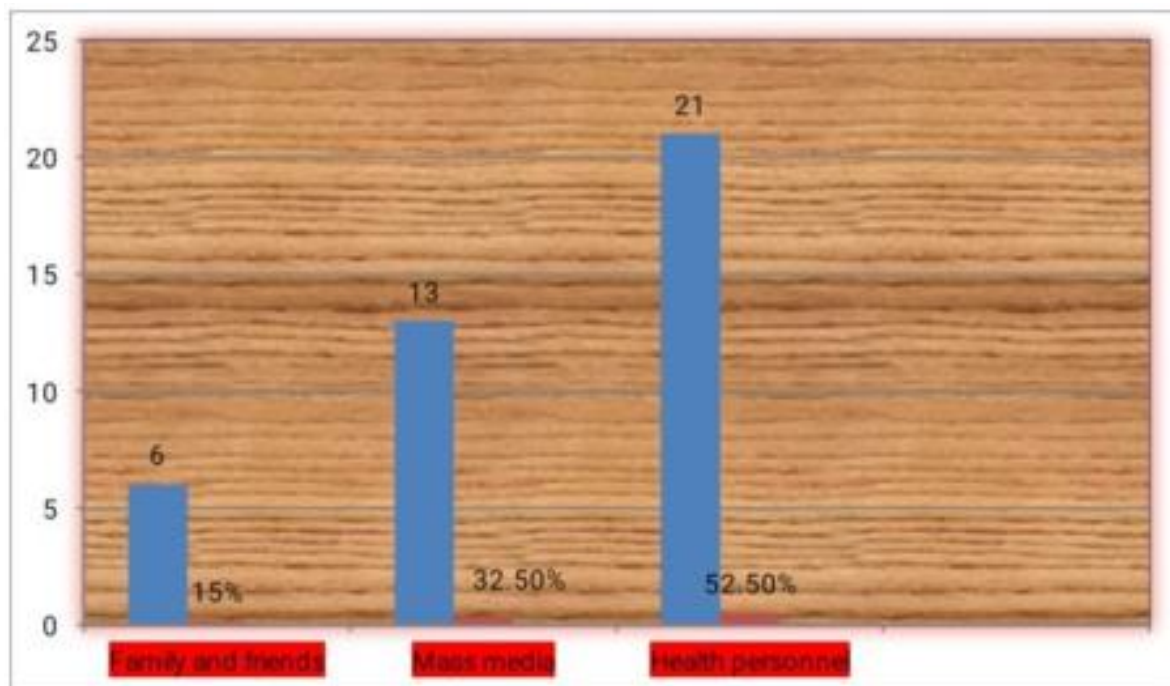


Figure 9: Bar diagram showing the distribution of sample according to source of information about Diabetic foot ulcer and its management.

## CHAPTER VI DISCUSSION

The discussion section devoted to the thoughtful insightful analysis of the finding leading to a discussion of their clinical and theoretical utility. The present study was designed to "assess the effectiveness of self-instructional module on the knowledge and quality of diabetic foot ulcer and its management in selected hospital".

### OBJECTIVES:

- ☒ To assess the level of knowledge regarding diabetic foot ulcer and its management among diabetic patients.
- ☒ To evaluate the effectiveness of self-instructional Module regarding scores of among diabetic foot ulcer and its management.
- ☒ To find out the association between post-test knowledge scores of Diabetic foot ulcer regarding its management among patients with their selected.

In this study an evaluative research approach was used. The research design selected for the study was pre-experimental one group pre-test design. The independent variable was self-instructional module and dependent variable was knowledge of primary diabetic foot ulcer. The sample of this study comprised of 40 from selected hospital. Non-probability convenient sampling technique was used to draw the sample for the study. The obtained data was analysed in terms of using descriptive and inferential statistics.

The findings have been organised under the following sections:

### Section 3: Association between pos -test knowledge score and seleccted demographic variables of diabetic foot ulcer.

#### Section 1: Diabetic foot ulcer variables of samples:

##### The distrubtion of samples according to the diabetic foot ulcer

-The age of diabetic foot ulcer majority 26(43.3) were in the group of 35-45 years 18(30%) were in age group 45-55 years 10(16%) were in age group 55-65 years 6(10%) were in the age group and above and above.

-Regarding the diabetic foot ulcer majority 48(80%) were females and 12(20%) were males.

-Regarding the DIABETIC FOOT ULCER majority 34(56%) were from nuclear family, 24(40%) were from the diabetic foot and its management extended.

-Regarding the Diabetic mellitus foot ulcer majority 34(56.7) belong to Hindu Religion 13(21.7%) belong to Christian and 7(11.7%) belong to Muslim religion and 6(10%) belong to other religion.

-Regarding the Educational status of Diabetic mellitus foot ulcer 24(40%) completed Graduate and post-graduate.

-Regarding the source of information on Diabetic foot ulcer and its management in diabetic mellitus 42(70%) majority received information from electronic media and 14(23.3%) received information from the print media and 4(6.7%) received information from the health personnel.

-Regarding the Diabetic foot ulcer conducted among the patients 30(50%) responded Yes and 30(50%) responded Yes.



## Section 2: Knowledge of Diabetic foot ulcer and quality and its management regarding diabetic mellitus.

It reveals that the majority 35 (58.3%) had moderately adequate knowledge 25 (41.6%) had inadequate knowledge and none of them had adequate knowledge in pre-test and after the delivery of self-instructional module on diabetic foot ulcer and its management there is an increase in the level of knowledge among Diabetic mellitus foot care in post-test majority 57 (5%) had adequate knowledge 3 (5%) had moderate knowledge and none of them had inadequate knowledge.

## Section 3: Association between post-test level of knowledge scores and selected demographic variables of Diabetic foot ulcer care and quality management.

The study shows that there is a significant association between post-test level of knowledge regarding Diabetic foot ulcer with diabetic patients and its management among their selected demographic variables such as age (3.18\*), family type (4.30\*), religion (3.18\*), educational status (4.30\*). However, it is found there is no significant association between post-test level of knowledge regarding diabetic foot ulcer with diabetic mellitus among with the selected demographic variables such as source of information (4.30), gender (12.17) male patients (12.71) and female (12.71) at 0.005 level of significance.

Therefore the present study is supported with similar study "A study to assess the effectiveness of structured teaching program on learning disabilities among Diabetic foot ulcer with diabetic mellitus care knowledge quality in selected hospital Bangalore.

The sample selected for this study are teaching working in selected hospital. The sample of this study consists of 40 who in the age 35-45 years in the present 39.53 respectively with the obtained t-value of 25.779 was found to be highly significant at the level of  $p < 0.001$ . It means there is significant difference between pre-test and post-test knowledge of school teachers regarding learning disability. Findings revealed that there was a statistically significant association between the knowledge scores of with educational status, number of children at the level of  $p < 0.05$ . And not significant association at the level of  $p < 0.05$ . Hence, as a whole the research hypothesis stated that there will be significant association between the knowledge scores of Diabetic foot ulcer regarding learning disabilities with selected demographic variables was accepted.



## CHAPTER VI DISCUSSION

The discussion section devoted to the thoughtful insightful analysis of the finding leading to a discussion of their clinical and theoretical utility. The present study was designed to "assess the effectiveness of self-instructional module on the knowledge and quality of diabetic foot ulcer and its management in selected hospital".

### OBJECTIVES:

- ☐ To assess the level of knowledge regarding diabetic foot ulcer and its management in among diabetic patients.
- ☐ To evaluate the effectiveness of self-instructional Module regarding scores of among diabetic foot ulcer and its management.
- ☐ To find out the association between post-test knowledge scores of Diabetic foot ulcer regarding its management among patients with their selected.

In this study a qualitative research approach was used. The research design statistics.

The findings have been organised under the following sections:  
Section 1: Demographic variables of Diabetic foot ulcers.

Section 2: level of knowledge of Diabetic foot ulcer regarding and its management in Hospital.

Section 3: Association between post-test knowledge score and selected demographic variables of diabetic foot ulcer.

Section 1: Diabetic foot ulcer variables of samples:

The distribution of samples according to the diabetic foot ulcer

-The age of diabetic foot ulcer majority 26 (43.3%) were in the group of 35-45 years 18 (30%) were in age group 45-55 years 10 (16%) were in age group 55-65 years 6 (10%) were in the age group and above and above.

-Regarding the diabetic foot ulcer majority 48 (80%) were females and 12 (20%) were males.

-Regarding the DIABETIC FOOT ULCER majority 34 (56%) were from nuclear family, 24 (40%) were from the diabetic foot and its management extended.

-Regarding the Diabetic mellitus foot ulcer majority 34 (56.7%) belong to Hindu Religion 13 (21.7%) belong to Christian and 7 (11.7%) belong to Muslim religion and 6 (10%) belong to other religion.

-Regarding the Educational status of Diabetic mellitus foot ulcer 24 (40%) completed Graduate and post-graduate.

-Regarding the Diabetic footulcerconducted among the patients 30(50%) respondedYesand30(50%) respondedYes.

-RegardingtheexposuretodemographicdataofDiabeticfootulcerandits managementmajority32(56.3%)respondedNoand28(46.7%)respondedYes.

## Section2:KnowledgeofDiabeticfootulcerandqualityanditmanagement regardingdiabeticmellitus.

Itsrevealsthatthemajority35(58.3%)had moderatelyadequateknowledge 25(41.6%)had inadequateknowledgeandnoneofthem hadadequateknowledgeinpre-testandafterthedeliveryofself-instructionalmoduleondiabetic footulcerandits managementthere isanincreseinthellevelofknowledgeamongDiabeticmellitus footcareinpost-testmajority57(5%)hadadequqteknowledge3(5%)hadmoderate knowledgeandnoneofthem hadinadequateknowledge.

## Section3:Associationbetweenpost-testlevelofknowledgescoresandselected demographicvariablesofDiabeticfootulcerandqualitymanagement.

Thestudyshowsthatthereisasignifientassociationbetweenpost-testlevelof knowledgeregardingDiabeticfootulcerwithdiabeticpatientsanditsmanagement amongtheirselecteddemographicvariabelssuchasage(3.18\*)familytype(4.30\*), religion(3.18\*),educationalstatu(4.30\*).However,itisfoundthereisnosignificant associationbetweenpost-testlevelofknowledgeregardingdiabeticfootulcerwith diabeticmellitus amongwiththereselecteddemographicvariabelssuchassourceof information(4.30),gender(12.17)malepatients(12.71)andfemela(12.71)at0.005 levelsofsignificance.

Thesampleselectedforthisstudyareteachingworkinginselectedhospital.The sampleofthisstudyconsistsof 40who ---- intheage35-45years.inthepresent studyconsists of40diabeticfootulcerwho teachaged35-45years.Inthepresent study,non-probabilitypurposivesamplingtechniqueisused.Findingsrelatedtothe effectivenessofstructured programmeregarding diabeticfootulcerhad thetotal differenceinthemeanofoverallpre-testandpost-testknowledgescorewas19.38and

39.53 respectively with the obtained t' value of25.779 was found to be highly significantatthelevelofp<0.001.Itmeansthereissignificantdifferencebetweenpre-testandpost-testknowledgeofschoolteachersregardinglearningdisability.Findings revealedthattherewasastatisticallysignificantassociationbetweentheknowledge scoresofwitheducationalstatus,numberofchildrenatthelevelofp<0.05.Andnot significantassociation atthe levelofp<0.05.Hence,as a whole,the research hypothesisstatedthattherewillbesignificantassociationbetweentheknowledge scoresofDiabeticfootulcerregardinglearningdisabilitieswithselecteddemographic variableswasaccepted.

## CHAPTER-VIII CONCLUSION

The chapter deals with conclusion and implications and recommendations and limitations drawn for the study. A study to assess the effectiveness of Self-instructional Module on knowledge regarding Diabetic foot ulcer in patients with diabetic mellitus".

The present study evaluated the effectiveness of self-instructional module on knowledge regarding ----- and following conclusions were drawn on the basis of findings of the study. The findings showed that in pre-test --- % of samples had moderately adequate knowledge -- % of samples had inadequate knowledge regarding diabetic foot and its management.

In post-test --- % of samples had adequate knowledge ----- % of samples moderately adequate knowledge and --- of them have inadequate knowledge. It shows that there is significant improvement in knowledge after the self-instructional module with a mean difference ---. The paired t-value obtained was --- at the level of  $p < 0.05$  significance.

The nursing personnel should be prepared as stakeholder to take leadership role in all level of prevention, promotion and treatment. Nurses active participation in ----- by providing direct and indirect care help to achieve the goals of health services. ----- deficit in knowledge regarding ----- indicate the need for arranging sessions in related topics.

### NURSING ADMINISTRATION

The major responsibility of nurse administrators in nursing service department is to plan and implement the health awareness and education programmes regarding ----- and its management in patients with diabetes mellitus.

### NURSING EDUCATION

Nursing curriculum is a measure for motivating the students to hunt for knowledge equips nurses with essential knowledge, skill for prevention, promotion, early detection and management of illness. ----- are important in -----, ----- play an important role in the care of such patients ----- should be given necessary theoretical and practical knowledge on ----- and how to utilize other professionals like ----- in healthcare. Curriculum should give additional in developing communication skills of the ----- nurses for the better utilization of available resources.

### NURSING RESEARCH

Researcher found ----- So the investigator recommends conducting periodic research on childhood disorders and role of nurses.

### SUGGESTIONS FOR FURTHER STUDY

- ❑ A similar study can be undertaken on a larger scale for making a more valid generalisation.
- ❑ A comparative study can be arranged among -----.
- ❑ A study can be done to analyse the practice of ----- towards diabetic patients.

the inclusion of more practical knowledge regarding ----- and its management in diabetic patients.

☒ Periodic assessment of ----- knowledge regarding health related problems to be conducted.

☒ A study can be carried out to evaluate the efficiency of various teaching strategies like pamphlets, learning module, leaflets and computer assisted instruction on ----- and its management.

☒ A study can be conducted among ----- on -----

☒ A concentrated study should be made to increase the awareness among the -----  
----- regarding their role in ----- programmes.

☒ Arrange an orientation programme for ----- in ----- PROJECTED OUTCOMES

The present study shows that through ----- possessed ----- knowledge, skill and practice in managing diabetic patients. Based on the assessment, the researchers prepared a learning module which explains the meaning ----- and causes, management and prevention of diabetic foot and identification of diabetic foot. This can be useful to all those who are handling diabetic patients.

## CHAPTER-VIII

### SUMMARY

The main aim of the study was to assess the knowledge of primary school teachers regarding dyslexia and its management in children. It also aimed at finding out the association between knowledge scores of primary school teachers with selected sociodemographic variables. The main study was conducted in three selected schools in Bangalore.



The research design adopted for the study was pre-experimental design. The instrument developed and used for the present study is self-administered questionnaire, consist of 2 sections.

Section 1 demographic variables consist of 8 items.

Section 2 structured knowledge questionnaire consist of 30 items.

Non-probability convenient sampling technique was used to draw the sample for the study. A conceptual framework is an analog of a house. Just as the foundations support a house, a theoretical framework provides a rationale for predictions about the relationship among variables of a research study. A conceptual framework used in the study is based on modified Ludwig Von Bertalanffy general system theory.

The tool developed and used for data collection was self-administered questionnaire. The tool validated by experts from different medical and nursing departments and it was found to be reliable and feasible. Pilot study was conducted as a part of major study and the tool proved to be comprehensive, feasible and acceptable. Data collection procedure began after obtaining permission from hospital and consent from hospital. The investigator personally explained the need and assured the confidentiality of their responses.

The data gathered was analysed and interpreted according to objectives. Descriptive statistics were mean and standard deviation and inferential statistics

include paired t-test, Chi-square ( $\chi^2$ ) Test to test hypothesis at different levels of significance and data obtained are represented in graphical form.

### Finding related to demographic variables



☒ Regarding the type of religion majority --- Diabetic foot ulcer with diabetic mellitus patients from religion.

☒ Regarding the Educational status majority --- completed graduate and post-graduate.

☒ With regard to the source of information status --- on Diabetic foot ulcer with diabetic mellitus patients

☒ Regarding the occupational status conducted among the Diabetic foot ulcer with diabetic mellitus -----

☒ Regarding the Duration of Diabetic mellitus among the Demographic variables ----- responded yes and ----- responded No Diabetic foot ulcer with diabetic mellitus patients

☒ Among 40 Diabetic foot ulcer with diabetic mellitus patients majority --- responded no the exposure to the exposure Diabetic foot ulcer with diabetic mellitus patients and its management.

Finding related to knowledge scores of Diabetic foot ulcer with diabetic mellitus:

It reveals that the majority --- Diabetic foot ulcer with diabetic mellitus patients majority had adequate knowledge --- had inadequate knowledge in pre-test and after the delivery of self-instructional module on Diabetic foot ulcer with diabetic mellitus patients and its management there is an increase in the level of knowledge among Demographic variables in post-test majority --- had adequate knowledge --- had moderate and then had inadequate knowledge.

selected demographic variables such as age --- gender --- religion --- educational status ----- as they obtained Chi-square value is greater than tabulated value. However, it is found there is no significant association between post-test knowledge score regarding knowledge scores regarding Diabetic foot ulcer with diabetic mellitus quality knowledge and its management among patients with their selected demographic variables such as source of information --- gender -- Diabetic mellitus patients

--- and exposure to ----- as they obtained Chi-square value is lesser than the tabulated value.

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