

## The Role of Kinship, Satisfaction with Life and Resilience among Diabetic Patients

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### ABSTRACT

The Role of Kinship, Satisfaction with Life and Resilience Among Diabetic Patients. The present study is based on sample of 124 diabetic patients drawn from different parts of the world. It was planned to assess the significant difference and relationship between the Role of Kinship, Satisfaction with Life and Resilience among Diabetic Patients. Researcher used three scales to produce better results. They are, Kinship Scale, Satisfaction with Life Scale and Brief Resilience Scale. The statistical technique used in the present study was Student t-test and Pearson's coefficient of correlation. Result of the study revealed that there is no significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients. There is significant relationship between among role of kinship, satisfaction with life and resilience in females diabetic patients and there is significant relationship between role of kinship, satisfaction with life and resilience in males and females diabetic patients.

**Keywords:** Kinship, Satisfaction with Life, Resilience, Diabetic Patients

### DIABETIC PATIENTS

WHO defined chronic diseases as diseases of long duration and generally slow progression. 60 percent of all deaths in the world are due to chronic diseases (WHO) such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes and 80 percent of chronic diseases deaths occur in low- and middle-income countries. The rapidly increasing burden of chronic diseases is a key determinant of global public health. In 2001, chronic diseases contributed to approximately 60% of the 56.5 million total reported deaths in the world and approximately 46% of the global burden of disease. The proportion of the burden of non-communicable diseases is expected to increase to 57% by 2020 (WHO 2002). In chronic diseases health status (health related quality of life) is a major concern. Diabetes mellitus is a chronic disease which has a great impact on health status (Health related quality of life) of the patients; it is an important cause of death, illness and disability across the world. Diabetes greatly increases the risk of developing blindness, lower limbs amputations, end-stage renal disease, coronary artery disease,

Cerebrovascular disease or peripheral vascular disease thus in other words diabetes mellitus affects the health status (health related quality of life) of diabetic patients. Diabetes Mellitus

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one of the most prevalent chronic diseases is a condition in which a person has a high blood sugar (glucose) level as a result of the body either not producing enough insulin or because body cells do not properly respond to insulin that is produced. In other words, diabetes is a condition where the body is unable to regulate blood glucose levels, resulting in too much glucose in the blood, the body cells do not absorb the glucose, the glucose accumulate in the blood (hyperglycemia), leading to various potential medical complications. According to King (1999) diabetes is a chronic disease arising from inherited and/ or acquired deficiency in the production of insulin by the pancreas. Glucose comes from foods that contains carbohydrates (starches & sugars); for example, breads, cereals, milk, fruits and some vegetables.

### *Classification of Diabetes*

According to American Diabetes Association (2009b), diabetes can be divided into four categories: type 1 diabetes, type 2 diabetes, gestational diabetes, and other specific types of diabetes.

**Type 1 Diabetes:** It results from the body's failure to produce insulin, when the body's immune system eventually destroys the cell of the pancreas that produces insulin (auto immune response). The onset of type 1 diabetes may be quite sudden and often the person has rapid and unplanned weight loss over several weeks.

**Type 2 Diabetes:** It results from insulin resistance, a condition in which cells fail to use insulin properly, sometimes accompanied by an absolute insulin deficiency. The majority of people with diabetes have type 2 diabetes. People with this type of diabetes are more likely to carry excess weight around the waist and to have high blood pressure. They are more likely to have raised cholesterol levels and heart disease. This is called the "metabolic syndrome"

**Gestational Diabetes:** It occurs in women who are pregnant and who have never had diabetes before they have a high glucose level during pregnancy, it may precede development of type 2 diabetes mellitus. This type of diabetes resembles type 2 diabetes in several respects, this form of diabetes is fully treatable but 20%-50% of women affected with gestational diabetes develop type 2 diabetes later in life. Other specific types of diabetes include genetic defects of beta cell function, genetic defects in insulin action, diseases of the exocrine pancreas, endocrinopathies, drug or chemical induced diabetes, infections, uncommon forms of immune-mediated diabetes, and other genetic syndromes associated with diabetes (American Diabetes Association, 2009). The classical symptoms of diabetes mellitus are polyuria (frequent urination), polydipsia (increased thirst) and polyphagia (increased hunger), symptoms develop quite rapidly in type 1 diabetes mainly in children but in type 2 diabetes symptoms usually develop more slowly or may be slightly or completely absent. All of these symptoms except weight loss (which is more significant in type 1 diabetes) can also manifest in type 2 diabetes in patients whose diabetes is not managed properly, but unexplained weight loss is usually seen at the onset of disease.

Chronic or prolonged high blood glucose causes glucose absorption, which leads to the changes in the shape of the lenses of the eyes, resulting in vision changes; sensible control usually returns the lens to its original shape. Blurred vision is a common symptom of diabetes which often leads to its diagnosis. The clinical picture of type 2 diabetes differs from the clinical picture of type 1 in several important aspects. Many type 2 diabetics do not complain of obvious diabetic symptoms, so the disease is detected either opportunistically or during

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hospital visits or when the patients report intercurrent infections like genital candidiasis, or urinary tract or skin problems.

The presence of diabetic complications can greatly influence the duration of the admission and the patient's ability to perform self-care activities (Dunning, 2003).

Complications of Diabetes can be classified as acute and long-term complications. Temporary changes in blood sugar levels may cause acute complications. Hypoglycemia, hyperglycemia, hypertrophy or fat atrophy, infection and insulin allergy constitute the acute complications of diabetes mellitus (Dunning 2003). Guthrie and Guthrie (2002) pointed that hypoglycemia may be caused by too high dosage of an oral hypoglycemic agent, too much insulin, or insufficient food intake, the symptoms include nervousness, shakiness, weakness, headache, perspiration, double vision and hunger. On the other hand, hyperglycemia results from too much glucose and not enough insulin (Guthrie & Guthrie, 2002), the symptoms of hyperglycemia in the earlier stage are polyuria, polydipsia, and polyphagia (Guthrie & Guthrie, 2002). Cardiovascular system, the kidneys, the retina and the peripheral nervous system are the areas which get affected by the diabetes and causes long term complications in the adult diabetic patients. The major problem in type 2 diabetes is severe atherosclerosis which leads to myocardial infarction, angina, stroke and heart failure. Patients with type 2 diabetes often get affected by Retinopathy, Nephropathy and Neuropathy. There are many atherosclerotic factors which predispose a type 2 diabetic patients to arterial diseases, the factors include obesity, hyperlipidemia, hypertension and smoking, Reaven (1988) grouped these factors into 'Syndrome X'. Retinopathy and cataract each effects 15 percent of patients, nephropathy is another micro vascular complication of diabetes but its prevalence is lower in type 2 diabetics than in type 1 because type 2 patients being older as compared to type type 1 patients have a shorter exposure to hyperglycemia, so less chances to progress to end-stage nephropathy which leads to renal failure. It has been reported by Mc Culloch et al. (1980) that about one third of male patients when questioned directly have some degree of erectile dysfunction.

Diabetes not only affects the body but it affects the mind also. A number of psychological complications of diabetes have been observed like cognitive decline, depression and anxiety among diabetic people. Perlmutter et al. (1984) and Biessels et al. (2001) found that people with type 2 diabetes have impaired performance on complex cognitive tasks. It has been shown by researchers like Gregg et al. (2000) that longer illness duration and complicated diabetes are related to increase in cognitive decline in diabetic patients. Diabetes has been widely reported to be associated with depression and anxiety. Kessing et al. (2003) reported that depression is not particularly prevalent in diabetes than the rates reported in other chronic illnesses but it is more prevalent among diabetics than the general population. Women with type 2 diabetes are twice as likely as men to be depressed. It is found that complications of diabetes such as neuropathy, retinopathy, sexual dysfunctions and macro vascular complications are also related to depression. Cognitive Behavioral Therapy was found to be useful in diminishing depression but CBT is not as effective when complications of diabetes are present and if there is lower frequency of blood glucose testing. depression affects diabetes self-management in three distinctive ways firstly by affecting older patients' overall quality of life (Kohen, Burgess, Catalan & Lant 1998), second by reducing physical activity levels and third by impairing patient's ability to communicate effectively with their health care teams. It has been found that Diabetic Peripheral neuropathy, or nerve damage in the toes, feet and sometimes hands, affects up to 50% of patients with diabetes, the most serious complications of diabetic nerve damage, are linked with high health care costs,

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loss of work time and a lowered quality of life. Some studies have suggested that diabetic nerve damage is also linked with symptoms of depression, one such study was done by Vileikyte (2005) used a well-established test to identify and measure symptoms of depression in the 494 patients who had diabetic nerve damage, the researcher also used tests and instruments to measure symptoms of diabetic nerve damage, how active the patients were, and the patients' perception of themselves and their illness and symptoms. The researchers found that symptoms of diabetic nerve damage were linked to symptoms of depression.

### **KINSHIP**

Kinship system refers to the roles and relationships of members of a family. It defines each member's relation to another, what each one is called, as well as their obligations, rights and limitations in relation to one another. It is also defined as a system of social relationships that are expressed in a biological idiom. It is best visualized as a mass of networks of relatedness, not two of which are identical, that radiate from each individual, as another scholar wrote (Tonkinson 1991). Kinship also appears as a "huge field of social and mental realities stretching between two poles". One is highly abstract: it concerns kinship terminologies and marriage principles or rules they implicitly contain or that are associated with them. The other is highly concrete: it concerns individuals and their bodies, bodies marked by the position of the individual in kinship relations (Godelier 1998).

While many anthropologists would agree today that there are no so-called kin-based societies – societies in which kinship provides the overarching ideological domain for social structure and behavior. They would also argue that in many, if not in most, societies it is an important vehicle of social structure, behavior and moral order. Be it landownership and its transmission, behavioral codes, role distribution in ritual context etc. the domain of kinship is often involved with considerable effects. From human body to the social and moral order and from spheres of practice to the domain of the symbolic.

The post World War 2 development of kinship history was initiated by the emergence to gather the records. The essay discusses five areas of subsequent development in the field: (1) the search for an investigation of large-scale kinship structures and their influences on society as a whole, (2) life-course analysis, (3) interactions between kinship and economic relations at the community level and (5) the relations between kinship and social structures more generally. Finally, the essay considers the study of mentalities, as it has influenced kinship history.

Kinship is the feelings of deep affiliation and love in interpersonally close relationship. They could be the family members and genetically unrelated significant others derive from a human heritage of attachment, bonding and sociality. This person could be a family member, partner in an interpersonal relationship or even the clinician.

### **SATISFACTION WITH LIFE**

Life satisfaction or satisfaction with life (SWL) is defined as a person's cognitive evaluation of his/her quality of life as a whole or with specific domains of life. Life satisfaction is defined as the global evaluation of a person's quality of life based on the person's own choice (Shin & Johnson, 1978). According to Veenhoven (1991), "life satisfaction is conceived as the degree to which an individual judges the overall quality of his life as a whole and favorably". Beutell (2006) believes that life satisfaction is related to better physical and mental health, longevity and other outcomes that are considered positive in nature. Life satisfaction is dependent on a number of life domains as age, gender, socio-economic status, job status,

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family etc. Each domain has a large effect on an individual's life satisfaction. Spirituality is positively correlated as well as emotional intelligence to have a strong relationship with the life satisfaction.

One of the most important aspects of human existence has been concerned with seeking happiness and throughout the course of history, philosophers, thinkers and reformers have attached highest place on it. Even then for decades psychologists have largely ignored positive part of life satisfaction. Life satisfaction, in fact, had been understood mainly from two approaches- the philosophical approach and the psychological approach.

- The philosophical approach of life satisfaction carefully and in this approach it is based on the fact to ascertain what 'ought to be', not 'what is satisfying'. The ethical, moral and religious attitudes put emphasis on 'should'. Philosophers used pleasures, joy, happiness and satisfaction interchangeably in their writings; hence, it was really difficult to understand exact meaning of the term life satisfaction.
- Psychological approach: -it was raised only after the establishment of the first psychological laboratory of Wundt (1879). Later on, it was known that mental processes were the outcome of the interaction between attitudes and behavior. Research workers, therefore, directed their effort toward the measurement of the attitudes of persons concerning different walks of life. One approach was directed towards the assessment of life adjustment of aged population in relation to life satisfaction.

Life satisfaction has been considered different from some of the similar concepts indicating satisfaction in life via; happiness, self-esteem and social desirability. Happiness and life satisfaction were considered different concepts as the concept of happiness had a stronger affective component while life satisfaction had a stronger cognitive one. Life satisfaction was considered as a stable 'trait' and happiness as a 'state' or 'mood'.

### RESILIENCE

According to Rutter (1990), resilience refers to the positive adaptation in the face of stress or trauma. Resilience is inherent in the way human beings deal with life changes and other complex situations. It is also defined as "the process of capacity for or outcome of successful adaptation despite challenging or threatening circumstances. Despite the breadth and depth of definitions, the basic conceptualization of resilience as adaptation and bounce back despite adversities is considered a good starting point for the purpose of a common frame of reference.

Resilience research has its origin in the disciplines of psychiatry and developmental psychology. It focuses on within-person factors, rather than considering the ecosystemic context of adaptation, the study of resilience emerged from the study of risk. The early writings on resilience were theoretical in nature and included musings as to the nature of healthy personality and development as compared to pathology.

Overtime, research in the area of resilience has essentially unfolded in five different directions, including resilience as an aspect of child development and response to adverse conditions, resilience as a theoretical construct of personality, the biological basis of resilience, resilience as a feature of positive coping in response to life stressor, and resilience in terms of enhanced coping following trauma. Each field of research has retained its own unique perspective on the nature of resilience and this had led to each of the five fields developing their own take on the construct of resilience with specific approaches to research

and infrequent cross referencing. The result of this divergence is that each field seems disconnected from the others despite a significant convergence in recent years as to what is understood to be integral to the construct.

### ***Multiple Resilience Constructs Framework***

Kumpher (1999) developed a resilience framework based upon both process and outcome constructs. He specified six major constructs in this framework. Out of these six, four are domains of influence and two are transactional points between two domains. The four influence domains are: the acute stressor or challenge, the environmental context, the individual characteristics, and the outcome.

1. **Stressors or Challenges:** These incoming stimuli activate the resilience process and create a disequilibrium or disruption in homeostasis in the individual or organizational unit (e.g., family, group, community) being studied. The degree of stress perceived by the individual depends on perception, cognitive appraisal and interpretation of the stressor as threatening or aversive.
2. **The External Environmental Context:** It includes the balance and interaction of salient risk and protective factors and processes in the individual child's external environment in critical domains of influence (i.e., family, community, culture, school, peer group). These change with age and are specific to culture, geographic location, and historical period.
3. **Person-Environment Interactional Processes:** These include transactional processes between the child and his or her environment as the or caring others either passively or actively attempt to perceive, interpret and surmount threats, challenges or difficult environments to construct more protective environments.
4. **Internal Self Characteristics:** It includes internal individual spiritual, cognitive, social/behavioral, physical and emotional/affective competencies or strengths needed to be successful in different developmental tasks, different cultures, and different personal environments.
5. **Resilience Processes:** These include unique short-term or long-term resilience or stress/coping processes learned by the individual through gradual exposure to increasing challenges and stressors that help the individual to bounce-back with resilient reintegration.
6. **Positive Outcomes or successful life adaptation:** The positive outcome in specific developmental tasks which are supportive of later positive adaptation in specific new developmental tasks culminating in a higher likelihood of reaching a global designation in adulthood as a "resilient child or adult". While this is an outcome, in a dynamic model, a positive outcome suggesting resilience is also predictive of later resilient reintegration after disruption or stress.

Organizing resilience research by these six areas has helped to clarify the differences between environmental stimuli, transactional environment buffering processes, internal mediating self-factors, resilience processes used to bounce-back after a challenge, and the final developmental outcomes of resilient children. Global designation in adulthood as a "resilient child or adult". While this is an outcome, in a dynamic model, a positive outcome suggesting resilience is also predictive of later resilient reintegration after disruption or stress. Organizing resilience research by these six areas has helped to clarify the differences between environmental stimuli, transactional environment buffering processes, internal mediating self-factors, resilience processes used to bounce-back after a challenge, and the final developmental outcomes of resilient children. Global designation in adulthood as a "resilient child or adult". While this is an outcome, in a dynamic model, a positive outcome suggesting

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### *Resilience Process Model*

When a person does fail, but develops as a stronger person in the process, some type of resiliency process is occurring. **Richardson et al. (1990)** proposed the Resilience Process Model to explain this process. According to resilience process model, stressors or life challenges have a potential to create imbalances in homeostasis or disruption (**Flach, 1988**) provided such stressors or life challenges are not balanced by external environmental social protective processes or bio psycho spiritual resiliency factors within the individual. Such environmental social supportive processes have a potential to reintegrate the homeostasis and balance. This model also proposes several different levels of reintegration can occur based on environmental social reintegrating processes:

1. Resilient reintegration, or a higher state of resiliency and strength
2. Homeostatic reintegration or the same state before the stressor.
3. Maladaptive reintegration or a lower state of reintegration.
4. Dysfunctional reintegration or a major reduction in positive reintegration.

This model proposes that the positiveness of the level of homeostasis does change over time. Some individuals appear to grow from the experience and look on the positive nature of the disruption, whereas others decompensate into depression and negativism. Looking at the model from preventive approach, it proposes four different intervention points in the resiliency process:

1. Environmental social protective processes.
2. Environmental social enhancing processes.
3. Environmental social supportive processes.
4. Environmental social reintegrating processes support resilient integration.

Resilience as bouncing back: between the other meanings associated with resilience, it may be useful to use different words for resistance to illness, adaptation to stress, and functioning above the norm in spite of stress. A clear distinction between “resilience” as returning to the previous level of functioning (e.g., Bouncing back or recovery) and “thriving” as moving to a superior level of functioning following a stressful event.

### *Significance of the Study*

Kinship is the system that refers to the relationship that bonds up one another who would be either genetically related or not. This system provides an individual to build up a healthy relationship within oneself and the society. Satisfaction with life is the ability to enjoy one's experience accompanied by a degree of excitement and resilience refers to the positive adaptation in the phase of stress or trauma. In the present situation commonly, people feel tired and alone after their works on daily basis or etc. but insecurity prevails when they find themselves alone as no one around them to share their feelings or even to talk, this can be due to their family structure or the work they are doing, which makes them upset as it they are doing it forcefully or for surviving in that environment. In these situations, the person can feel less satisfied with life, as they would be in a hurry to gather more and more without looking out for themselves or taking care of themselves. This may lead them to be cornered and to focus on any one point of life that makes them feel secure temporarily, and can make

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them to feel that the relationship bonds i.e., kinship bonds to be not well maintained and may lead to have disturbed relationships. In the case of diabetic patients it would affect them more seriously, as if they were feeling lonely or less satisfied with their life, they couldn't be able to fight against the diabetics or to maintain stability in their health conditions, and mostly the best way to make them to come back to life is to have a good kinship relations, but if there is a disturbance in that too, then it would lead to a serious issue of not at all taking care of their health, when in this condition of having diabetics is very crucial and to be handled carefully. So, in the case of resilience, the coming back into a normal zone of life would be easier for normal people than diabetics patients due to it's chronic condition that affects their lifestyle. So, if proper care is not given, then it might lead to several severe or mild physical, mental and social problems.

Now-a-days people are less satisfied with their life due to less communication to with their surrounding world and their resilience power varies according to it. This study investigates the role of kinship on satisfaction with life and their resilience among diabetes patients. If there is any impact then we can bring them to bounce back and have a sense of satisfaction with life by reducing other distractions.

### *Statement of the Problem*

“The role of kinship, satisfaction with life and resilience among diabetic patients”.

### *Definition of Key Terms*

- **DIABETIC PATIENTS:** It is the chronic illness and a chronic condition of impaired carbohydrate, protein and fat metabolism that results from insufficient secretion of insulin or from insulin resistance.
- **KINSHIP:** Kinship is a mass of networks of relatedness which radiate from each individual, and this network expresses itself in a biological idiom (Tonkinson 1991).
- **SATISFACTION WITH LIFE:** Life satisfaction is defined as the global evaluation of a person's quality of life based on the person's own choice (Shin & Johnson, 1978).
- **RESILIENCE:** Walsh (1998) Defined resilience as capacity to rebound from adversity strengthened and more resourceful, the qualities of resilience enable people to heal from traumatic wounds, take charge of their lives, and to live fully and love well. It is forged through openness to experiences and interdependence with others.

## **REVIEW OF LITERATURE**

A literature review is a comprehensive summary of previous research on a topic. The literature review surveys scholarly articles, books, and other sources relevant to a particular area of research. The review should enumerate, describe, summarize, objectively evaluate and clarify this previous research. It should give a theoretical base for the research and help you (the author) determine the nature of your research. The literature review acknowledges the work of previous researchers, and in so doing, assures the reader that your work has been well conceived. It is assumed that by mentioning a previous work in the field of study, that the author has read, evaluated, and assimilated that work into the work at hand. A literature review creates a "landscape" for the reader, giving her or him a full understanding of the developments in the field. This landscape informs the reader that the author has indeed assimilated all (or the vast majority of) previous, significant works in the field into her or his research.



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"In writing the literature review, the purpose is to convey to the reader what knowledge and ideas have been established on a topic, and what their strengths and weaknesses are. The literature review must be defined by a guiding concept (eg. your research objective, the problem or issue you are discussing, or your argumentative thesis). It is not just a descriptive list of the material available, or a set of summaries.

**Sioni S & Mathur K (2016)** studied the empowerment of type 1 diabetics. The aim of the present research was to study the relationship between type 1 diabetes patients and diabetes empowerment in relation to gender and blood glucose control. Purposive sampling method was taken in use to select the cohort of 40 type 1 diabetics equally divided genderwise and as per their glycemic control. The sample was selected from various hospitals of Ahmedabad, Gujarat in the age range of 15-25 years. Diabetes Empowerment Scale (DES) was administered to assess diabetes-related psychosocial self-efficacy. The results were statistically analysed using "t" test. The findings depicted that diabetes empowerment was found to be more in diabetics having good glycemic control ( $HbA1c < 7.5$ ) than diabetics having poor glycemic control ( $HbA1c > 7.5$ ). Type 1 female patients had better empowerment than males.

**Fitzgerald et al. (2015)** in their retrospective cross-sectional analysis examined the association between patient empowerment (PE) and diabetes management in terms of the primary outcomes of metabolic control as measured by glycaemic control (HbA1c), total cholesterol (TC), high-density lipoprotein (HDL), low-density lipoprotein (LDL), and triglycerides. 569 type 2 diabetes patients were considered as a sample as were administered the diabetes empowerment scale to measure their PE. Demographic details about age, BMI, gender, diabetes duration, and smoking condition were taken. Results showed that there was no significant association between PE and other diabetes management variables and blood glucose control (HDL,  $p=0.95$ ; TC,  $p=0.49$ ; LDL,  $p=0.77$ ; triglycerides,  $p=0.77$ ; HbA1c,  $p=0.32$ ). It was confirmed by the logistic regression analysis that PE could not significantly predict the glycemic control. Gender and age could predict the HDC and LDL values. They were also correlated with changes in the levels of TC and triglycerides levels, respectively. It was concluded that PE was not significantly correlated with different measures of the illness control.

**Raballo et al. (2012)** explored the perceptions of diabetes care and diabetes (attitudes, empowerment, and locus of control) in 120 diabetes patients (43 with T1D and 77 with T2D) who followed the group care and 121 patients (41 T1D and 80 T2D) that followed the usual care. 3 open questions were administered and the answers were analysed using propositional analysis. Results showed, patients following group care revealed higher empowerment, more positive attitude, more locus of control than those following usual care. Higher values of blood glucose was correlated with negative empowerment ( $P = 0.055$ ) and negative attitude ( $P = 0.025$ ). They validated that group treatments promote self-efficacy, internal locus of control, positive attitude toward the disease, and finally empowerment.

**Brown, et.al. (2010)** identified factors that enable the families of type 1 diabetic child to adapt. The study was triangular in nature, with an exploratory, descriptive approach; non-probability purposive and snowball sampling techniques were employed. Sixteen families participated in the research. A biographical questionnaire which included an open-ended question, to be completed in written format, was used in conjunction with seven structured questionnaires to gather relevant data. These seven structured questionnaires were an operationalisation of some of the key, concepts and processes of the Resiliency Model. The

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results highlighted various resilience factors including family time and routines, communication, hardiness, the acceptance of the diabetes, adherence to a treatment regimen, the obtaining of and skills, and working together as a family unit in managing the diabetes. The researchers concluded that family plays a powerful role both in the treatment of chronic illness and in paediatric practice.

**Jasper, et.al. (2010)** studied that how the use of specific coping strategies affects resilience in adolescents with type 1 diabetes. Thirty adolescents with type 1 diabetes between the age of 10 and 16 years completed questionnaire along with their mothers on adolescents' coping strategy use, competence and quality of life. The results showed that greater use of primary control coping strategies like problem solving and emotional expression was associated with higher competence scores, better quality of life. Lower competence and poorer metabolic control were linked to disengagement coping strategies like denial or withdrawal.

**Morowatisharifabad, et.al. (2010)** conducted a cross-sectional study on 120 patients, they used an Iranian version of Diabetes Locus of Control and Diabetes Self-Care Activities scale. The results indicated that men had more internal locus of control and women revealed more chance locus of control. External locus of control increased by age, while the internal locus of control increased by education level but they found that chance locus of control decreased by educational level. The researchers found a positive relationship between internal locus of control and adherence to diabetes regimen and there was negative association between chance locus of control and adherence to diabetes regimen.

**WinEst, et.al. (2010)** studied the effect of a diabetes camp on participants, a descriptive comparative pilot study was undertaken. Adolescents 10 to 16 years of age with Type 1 diabetes attending a residential diabetes camp (N = 81) were recruited to explore the concept of self-efficacy and resilience, two possible mediators influenced by attending camp. Overall, self-efficacy and resilience scores were moderately high. No differences were found in outcome measures for gender or mode of insulin therapy; however, African Americans scored significantly higher for diabetes self-efficacy and resilience. Subjects living with one parent had poorer glycosylated haemoglobin (HbA1C) but scored better in resilience. No association for years of camp attendance and study outcomes were identified.

**Steinhardt et al. (2009)** conducted a pilot study to determine the effectiveness of Diabetes Coaching Programme (DCP) developed by the authors' and adapted for African American adults with type 2 diabetes. They used 1 group- pretest posttest design, the convenient sample comprised of 16 African American (8 men and 8 women) having type 2 diabetes but 12 subjects completed the programme. Psychosocial process variables included resilience, coping strategies and diabetes empowerment. Perceived stress, diabetes self-management and coping strategies were used as proximal outcomes. Distal outcomes included body mass index (BMI), HbA1C, fasting blood glucose, lipoedema, blood pressure. Statistically significant improvement were found in diabetes self-management, diabetes empowerment, HbA1C, BMI, low-density lipoprotein cholesterol, total cholesterol, and systolic and diastolic blood pressure.

**Yi et al. (2008)** conducted a longitudinal study to investigate the buffering role of resilience on blood sugar control and self-care behaviour in a sample of 111 patients with diabetes. Resilience was defined as a factor score of self-efficacy, self-esteem, self-mastery and optimism. Results showed that resilience demonstrated a buffering role between HbA1C levels and diabetes-related distress among type 1 and type 2 diabetic patients. Patients with

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low or moderate resilience levels showed a strong association between rising distress and worsening HbA1C across time, but they found that patients with high resilience did not show the same associations, low resilience accompanied by high distress is associated with fewer self-care behaviours.

**Bradshaw et al. (2007)** conducted a randomized design to test the efficacy of resiliency training approach for people having diabetes, who earlier received standard diabetes self-education, they used repeated measures comprising of 67 participants assigned to treatment (n=37) or the resiliency classes (n=30). Outcomes variables in the study included glycosylated haemoglobin, waist measurement, eating and exercise habits and self-efficacy, locus of control, purpose in life and social support as psychosocial measures. The results showed that treatment groups had higher levels of resiliency as they showed positive ways of coping with distress due to diabetes, they knew enough about themselves to make right diabetes choice, eating healthier, having fun in life and increase in physical activity as compared to control group.

**Dubey (2007)** the present study tried to identify the effective coping strategies, which leads to satisfaction with life, even if one is afflicted with a chronic disease, such as cancer, diabetes or heart ailment. The sample comprised of 180 chronically ill patients (55 diabetics, 55 heart patients, 35 cancer patients and 35 patients who have both diabetes and heart disease). To assess the coping strategies and satisfaction with life, questionnaires were used. The results of the stepwise multiple regression analysis indicated that the use of active coping strategies were effective in promoting the level of satisfaction as a whole and also the present and future satisfaction with life. The findings were discussed in the light of inculcating the use of active coping strategies amongst chronically ill patients.

**Papadopoulos et al. (2007)** assessed the health-related quality of life of Greek type 2 diabetes mellitus patients and identified significant predictors of the disease in the patient population. The sample consisted of 229 type 2 diabetes mellitus patients in a rural community of Lesbos, an island in the north east of the Aegean Archipelagos. The results showed that the most important predictors of impaired health related quality of life were female gender, diabetic complications, nondiabetic co morbidity and years with diabetes, older age, lower education, being unmarried, obesity, hypertension and hyperlipidaemia were also related to impaired health related quality of life in at least one SF 36 subscales.

**Gillibrand, et.al. (2006)** investigated the experience of diabetes in young people with in the theoretical framework of the extended health belief model (EHBM), 118 patients of type 1 diabetes between the age of 16-25 years participated in the study. Results showed that high level of family support and low locus of control beliefs in powerful others to control their diabetes reduce the young person's perception of severity and vulnerability to diabetes related complications. They found that high internal locus of control beliefs and high levels of self-efficacy predicted the benefits of adhering to the self-care regime, high levels of family support also predicted adherence to self-care regime.

**Lou, et.al. (2006)** evaluated the effectiveness of a participatory empowerment group (PEG) for Chinese type 2 diabetes patients. Before the intervention scores on blood sugar and quality of life did not differ significantly between the experimental group and control groups, but after the intervention patients in the experimental group scored higher on quality of life and lower on blood sugar level compared to the control group. Thus, it was found that

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participatory empowerment group (PEG) was effective in enhancing the quality of Chinese type 2 diabetes patients.

**Kiers et al. (2004)** developed a Multidisciplinary Intensive Education Program (MIEP) to help patients achieve their treatment goals which included adequate self-management, glycemic control and quality of life. The objective of the study was to determine the effects of MIEP and its mechanism of influence. The program consisted of 12 days group sessions and individual counseling. 51 people participated in the study whose measures were taken on blood glucose (HbA1C), quality of life, health locus of control, distress and knowledge at baseline and 3 months follow up. The results showed HbA1C and knowledge improved significantly, patients rated themselves healthier, and were more internal and less powerful others oriented. The researchers concluded that locus of control significantly contributed in effects on quality of life.

**Pibernik-Okanovic et al. (2004)** conducted a study aimed at determining impact of an empowerment based psychosocial intervention on the patient's quality of life and glycemic control as compared to patients in standard care. Recruited type 2 diabetic patients, scheduled for their regular check-ups, were individually acquainted with empowerment-based principles and invited to participate in an empowering psychosocial course. The treated patients reported their quality of life to be improved and their glycaemic control also improved and remained so after 3&6 months follow-up periods, still being in a category of poor control. Better educated patients believing in internal health control and efficacy of diabetes treatment seemed to benefit the most.

**Lee (2003)** studied health behaviours in people with serious mental illness. The role of illness cognition, optimism, and health locus of control on diabetes. Their study examined the relationship between intraindividual variables and health locus of control and coping styles in predicting a range of health behaviours/outcomes including health status as well as diabetes specific health status. They found that independent variables were significant predictors on the general health status. Optimism and internal health locus of control variables was found to be significant only with general health status measures.

**Briggs et al. (2002)** examined the associations of socioeconomic barriers, familial barriers and clinical variables with health-related quality of life. They conducted a cross sectional study of 186 African Americans with type 2 diabetes recruited from two primary care clinics. The researchers found no significant differences in SF36 scale scores based on gender, age, income or insurance status. Clinical variables significantly associated with reduced health related quality of life were obesity, impaired renal function, and insulin use and co morbid disease. Blood pressure, lipids, and HbA1C were not significantly associated with health-related quality of life in their study.

**Redekop et al. (2002)** studied the health-related quality of life and treatment satisfaction for patients with type 2 diabetes in Netherlands, the researchers examined which patient characteristics are associated with quality of life and treatment satisfaction. The results showed that patients without complications of diabetes had health related quality of life only slightly lower than age matched controls in the general population. Insulin therapy, obesity and complications were associated with a lower health related quality of life, independent of age and sex. Higher fasting blood glucose and HbA1C levels were negatively associated with health-related quality of life but not significant. Overall treatment satisfaction was very high.

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**Trief, et.al. (2001)** examined how marital relationship factors and quality of life among diabetic spouses, they conducted the study on 78 people with insulin dependent diabetes mellitus. Trief found that better marital quality was associated with better adaptation to diabetes. Adaptation to diabetes was measured using a diabetes quality of life scale measuring satisfaction and impact of managing their diabetes. Trief et al. (2002) utilized the same sample from the first study and found that those with high marital adjustment at time 1 had higher perceived intimacy and were more satisfied with aspects of adaptation to their illness 2 years later. Marital quality was not significantly associated with glycemic control. The findings from both of these studies suggest that high marital quality results in better well-being.

**Surgenor et al. (2000)** investigated the relationship between multiple “sense of control” variables as measured by the Shapiro Control Inventory, metabolic control, and selected demographic and clinical variables in 96 women, ages 17-50 years with diabetes mellitus. The results showed that optimal metabolic control was significantly associated with experience of loss of psychological control and feelings of inadequacy. Poor metabolic control was significantly associated with reduced control in the specific domains of interpersonal relationships and bodily functions.

**Navuluri (1998)** conducted a descriptive correlation study to determine the relationship between health-related hardiness, patient attitude towards compliance, and self-care adherence to physical activity among 155 adults having diabetes. The findings revealed that health related hardiness was significantly positively correlated with self-care adherence to physical activity. Significant correlations were found between commitment and challenge and self-care adherence. Non-significant correlations were found between control and self-care adherence in the sample.

**Schaefer, et.al. (1986)** examined supportive and non-supportive family behaviors and their relationship to adherence and metabolic control in 18 adolescents and 54 adults with type 1 diabetes. Social support from family was measured using a diabetes family behavior checklist (DFBC) that was developed for IDDM individuals to assess the frequency of supportive and non-supportive family behaviours that may influence adherence to treatment regimen. (Schaefer et al., 1986). Age and years diagnosed with diabetes information was also collected. Dependent variables of interest included adherence areas (e.g. prescribed insulin injections per day, number of prescribed glucose tests per day, diet adherence, and HbA1c level). In relation to adult participants, the significant finding was that perceived negative family interactions were associated with poorer adherence to glucose testing, diet, and insulin injections.

Based on above literature, the researcher has formulated the following objectives and hypotheses.

### **Objectives**

1. To examine the role of kinship among males and females diabetic patients.
2. To examine the satisfaction with life among males and females diabetic patients.
3. To examine resilience among males and females diabetic patients.
4. To examine whether there is a significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients.
5. To examine whether there is a significant relationship among role of kinship, satisfaction with life and resilience in females diabetic patients.

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6. To examine whether there is a significant relationship among role of kinship, satisfaction with life and resilience in males and females diabetic patients.

### *Hypotheses*

1. There is significant difference in role of kinship among males and females diabetic patients.
2. There is significant difference in satisfaction with life among males and females diabetic patients.
3. There is significant difference in resilience among males and females diabetic patients.
4. There is a significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients.
5. There is a significant relationship among role of kinship, satisfaction with life and resilience in females diabetic patients.
6. There is a significant relationship among role of kinship, satisfaction with life and resilience in males and females diabetic patients.

## **METHOD**

### *Research Method*

The research methods are used to define the topic of the research and to establish a deeper understanding about it. Research methods are specific procedures for collecting and analysing data. Developing your research methods is an integral part of your research design. When planning your methods, there are two key decisions you will make.

First, decide how you will **collect data**. Your methods depend on what type of data you need to answer your research question:

- **Qualitative vs. quantitative:** Will your data take the form of words or numbers?
- **Primary vs. secondary:** Will you collect original data yourself, or will you use data that has already been collected by someone else?
- **Descriptive vs. experimental:** Will you take measurements of something as it is, or will you perform an experiment?

Second, decide how you will **analyse the data**.

- For quantitative data, you can use statistical analysis methods to test relationships between variables.
- For qualitative data, you can use methods such as thematic analysis to interpret patterns and meanings in the data.

Research methods consist of various techniques were various studies and experiments are used to conduct research to reach an appropriate conclusion.

### *Aim*

To study the role of kinship, satisfaction with life and resilience among diabetic patients.

### *Research Design*

A **Research Design** is a methodical, well-organized procedure utilized by a researcher, or a scientist to carry out a scientific study. It is a comprehensive co-existence of already identified elements and any other information or data leading to a reasonable end result. Researcher adopted descriptive research design for the current study. It is a scientific method

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which involves observing and describing the behaviour of a subject without influencing it in any way.

In this study descriptive research is used to describe characteristics of a population or phenomenon being studied. The study is designed to explore the relation between kinship, satisfaction with life and resilience. Researcher trying to explain how diabetic patients manage their kinship relationship and how they cope with their stressful life situations and how it influences their satisfaction with life. Appropriate standards for the conduct of ethical research were adhered to the project.

### *Research Participants*

The participants were 124 (62 males and 62 women), from different places in Kerala. The age ranges from 30 to 90 years old. After the purpose of the study and general procedures were described, participants were consent to participate in this study, provided with a set of questionnaires and google forms. All of them were volunteers. Out of 124 participants, 62 were males and 62 were women.

### *Sampling*

Questionnaire and Google form methods were used to collect data from the participants. Researcher personally and technically collected data from different areas.

### *Measures*

Questionnaires and Google forms were used in present study. The questionnaires such as Kinship Scale, Satisfaction with Life Scale and Brief Resilience Scale were administered to the participants to collect data. In addition to these standardized measures, a personal data sheet seeking information with regard to relevant socio-demographic variables were also made of.

The following tools were used,

#### **REVISED KINSHIP SCALE (Kent G. Bailey & Gustavo R. Nava, 1991):**

The kinship scale is a 20- item instrument designed to measure feelings of deep affiliation and love in interpersonally close relationships. The instrument is based on the notion that feelings of kinship with family members and genetically unrelated significant others derive from a human heritage of attachment, bonding and sociality. Respondents complete the kinship scale in relation to any person as a stimulus by filling in the blanks on the instrument. This person could be a family member, partner in an interpersonal relationship or even the clinician, since clinicians are incorporated into a client's psychological kinship. The current kinship scale was revised from an original 60-item instrument. Based on a sample of female college students, factor analysis suggests that there are four subscales of the kinship; family love, practical support, emotional intimacy and intellectual intimacy. The family love can be used as a short form measure of psychological kinship.

#### **Scoring:**

The revised kinship scale is been used in the present study. This scale includes 20 items with 4 subscales. The subscales are family love, practical support, emotional intimacy and intellectual intimacy. The items in the revised kinship scale are scored on 5 point scale from 1 to 5 range; The scoring of the revised kinship scale is comparatively simple. Add all questions with no reverse coding. Each scale and subscale have specific questions. Sum of such specific question indicates the result of the data. The following are the subscales of the revised kinship scale with their question numbers;

1 = very unimportant to you

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2 = unimportant to you

3 = you are not sure

4 = important to you

5 = very important to you

Family love: 1, 3, 4, 6, 7, 10, 11, 16, 19, 20

Practical support: 5, 8, 15, 18

Emotional intimacy: 12, 13, 14, 17

Intellectual intimacy: 2, 9

The total score is calculated by finding the sum of 20 items. The minimum score of a person is 20 and maximum score is 100.

**Reliability:** Reliability of the revised kinship scale is not reported, however, the 60-item version had excellent internal consistency, with an odd-even correlation of .95

**Validity:** This instrument has good concurrent validity, as seen in its correlations with measures of love, liking and attachment for both samples of men and women when evaluating their closest parent and boyfriend or girlfriend. With the exception of the practical support factor, the subscales also correlated with those measures for closest parent and boy/girlfriend. Further, mean total scores correlated with five measures of the relationship of time spent together, time one would want to spend together, reliance on others for emotional support and perceived caring. For women the total kinship scale scores correlated with two of these five variables.

### **SATISFACTION WITH LIFE SCALE (Dr. Ed Diener, 1985):**

The satisfaction with life scale is a 5- item scale, as part of a body of research on subjective well-being, refers to the cognitive judgemental aspects of general life satisfaction. Thus, in contrast to measures that apply some external standards, the satisfaction with life scale reveals the individuals own judgements of his or her quality of life. This instrument is very short and unidimensional, because satisfaction with life is often a key component of mental well-being, the satisfaction with life scale may have clinical utility with a wide range of clients; including adolescents undergoing identity crisis or adults experiencing midlife crisis.

#### **Scoring:**

The satisfaction with life scale is been used in the present study. This scale includes 5 items. The items in the satisfaction with life scale are scored on 7 point scale from 1 to 7 range;

1 = strongly disagree

2 = disagree

3 =slightly disagree

4 = neither agree nor disagree

5 = slightly agree

6 =agree

7 = strongly agree

The total score is calculated by finding the sum of 5 items. The minimum score of a person is 5 and maximum score is 35.

#### **Reliability:**

The 5 items on the satisfaction with life scale were selected from a pool of 48 based on factor analysis. The instruments internal consistency is very good, with an alpha of .87. The instrument appears to have excellent test-retest reliability with a correlation of .82 for a two-month period, suggesting it is very stable.

#### **Validity:**

The satisfaction has been tested for concurrent validity using two samples of college students. Scores correlated with nine measures of subjective well-being for both samples. The scale was not correlated with a measure of affect intensity. The satisfaction with life scale has also



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been shown to correlate with self-esteem, a checklist of clinical symptoms, neuroticism and emotionality. Scores on the satisfaction with life scale also correlates with independent ratings of life satisfaction among the elderly.

### **BRIEF RESILIENCE SCALE**

The brief resilience scale (BRS) is a 6-item scale, it was created to assess the ability to bounce back or recover from stress. Its psychometric characteristics were examined in four samples, including two student samples and samples with cardiac and chronic pain patients. The BRS is a reliable means of assessing resilience as the ability to bounce back or recover from stress and may provide unique and important information about people coping with health-related stressors.

#### **Scoring:**

The brief resilience scale is been used in the present study. This scale includes 6 items. The items in the satisfaction with life scale are scored on 5 point scale from 1 to 5 range;

1 = strongly disagree

2 = disagree

3 = neutral

4 = agree

5 = strongly agree

The BRS is scored by reverse coding for items 2, 4, and 6 and finding the mean of the six items.

#### **Reliability:**

The results for each sample revealed a one-factor solution accounting for 55–67% of the variance (Samples 1–4 = 61%, 61%, 57%, 67%, respectively). The loadings ranged from .68 to .91. Internal consistency was good, with Cronbach's alpha ranging from .80–.91 (Samples 1–4 = .84, .87, .80, .91, respectively). The BRS was given twice in two samples with a test-retest reliability (ICC) of .69 for one month in 48 participants from Sample 2 and .62 for three months in 61 participants from Sample 3. The BRS ( $\alpha = 0.71$ ) showed better internal consistency.

#### **Validity:**

The zero-order correlations between the BRS and personal characteristics, social relations, coping, and health outcomes for each sample. The BRS was positively correlated with the resilience measures, optimism, and purpose in life, and negatively correlated with pessimism and alexithymia. In addition, it was positively correlated with social support and negatively correlated with negative interactions. Finally, it was consistently positively correlated with active coping and positive reframing and negatively correlated with behavioral disengagement, denial, and self-blame. With regard to health-related outcomes, the BRS was consistently negatively correlated with perceived stress, anxiety, depression, negative affect, and physical symptoms. In addition, it was positively correlated with positive affect in three of the four samples and with exercise days per week in the cardiac rehabilitation sample. It was negatively correlated with fatigue in the cardiac sample and negatively correlated with fatigue and pain in the sample of middle-aged women.

### **Socio-Demographic data sheet**

A socio-demographic data sheet was used in order to collect information regarding the participants by assuring confidentiality in the personal details collected. The personal details like gender, age, occupation etc. followed were mentioned.

### *Procedure and Administration*

Before conducting the study, the researcher provided information about the nature and purpose of the study. After taking their consent, they were provided with the questionnaires under the consideration. The participants were asked to write down the details asked in the demographic sheet. And after filling it, they were asked to give response to the questions consisting in each questionnaire. They were requested to fill all the items. Confidentiality was maintained. The participants were asked that the data would be used for research purpose only.

After scoring each response sheets, suitable statistical techniques are used for analysis of data.

### *Statistical Techniques*

The statistical techniques selected were based on the objectives and the hypothesis formulated. The statistical techniques used are as follows:

- **Descriptive statistics:**

Descriptive statistics such as frequency and percentage, and mean and standard deviation have been used to describe the demographics of the diabetic patients.

- **Independent sample t-test:**

This is a statistical test appropriate for judging the significance of a mean or judging the significance of different means of two samples (Garette, 1966). T-test is based on t-distribution and is considered an appropriate test for judging the significance of a sample mean or for judging the significance of difference between the means of two samples in case of small samples (s) when population variance is not known (in which case we use the variance of the sample as an estimate of the population variance). Independent sample t-test was used in the study to compare the diabetic group in their various dimensions.

- **Correlation:**

Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. Correlation is a bivariate analysis that measures the strength of association between two variables and the direction of the relationship. In terms of the strength of relationship, the value of the correlation coefficient varies between +1 and -1. A value of  $\pm 1$  indicates a perfect degree of association between the two variables. As the correlation coefficient value goes towards 0, the relationship between the two variables will be weaker. The direction of the relationship is indicated by the sign of the coefficient; a + sign indicates a positive relationship and a - sign indicates a negative relationship. Usually, in statistics, we measure four types of correlations: Pearson correlation, Kendall rank correlation, Spearman correlation, and the Point- Bi serial correlation.

Pearson correlation technique is used for the study. Pearson's correlation coefficient is the test statistics that measures the statistical relationship, or association, between two continuous variables. It is known as the best method of measuring the association between variables of interest because it is based on the method of covariance. It gives information about the magnitude of the association, or correlation, as well as the direction of the relationship.

### *Ethical Considerations*

Ethical considerations in research are critical. Ethics are the norms or standards for conduct that distinguish between right and wrong. They help to determine the difference between

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acceptable and unacceptable behaviours. The ethics given below are followed throughout the research;

- All participants were informed that the responses are collected from each participant is kept confidential.
- A Consent form was given to all participants before collecting the data.
- Researcher informed the doctors that the details of the hospital are kept confidential.
- Treatment process and details about medication of patients did not reveal in their research.
- Researcher avoided unnecessary or embarrassing questions to each patient.
- The researcher safeguarded the right to privacy of the participants.

### RESULT AND DISCUSSION

This chapter presents different statistical analysis tests such as t- test and correlation analysis were carried out to analyse the calculated data and the results obtained are discussed under the following sessions. The t- test carried out to know significant difference between two groups selected for the study and correlation analysis done to find out the relationships between the variables under study.

#### *Preliminary analysis*

Preliminary analysis entails the fundamental descriptive statistics like, arithmetic mean, median, mode, SD, kurtosis and skewness of the variables kinship, Satisfaction with life and resilience. In the main purpose of the preliminary analysis is to get general idea about the nature of the variables. The details are presented in the table 1.

*Table 1 Basic descriptive statistics of variables*

Variables	Mean	Median	Mode	Standard Deviation	Skewness	Kurtosis
Kinship	74.25	77.00	76	13.87	-0.67	-0.07
Satisfaction with life	25.35	26.00	30	4.99	-0.46	-0.28
Resilience	3.02	3.00	3	0.33	-0.23	0.14

Table 1 shows the values of variables under study shows that the variables under investigation are not much deviates from normal distribution. Hence the data collected is viable for parametric statistical analysis.

#### Hypothesis 1

There is significant difference in role of kinship among males and females diabetic patients.

*Table 2: Mean, SD and t value obtained by Kinship among males and females diabetic patients.*

Variable	Male		Female		t- value
	Mean	SD	Mean	SD	
Kinship	72.29	13.37	73.21	14.39	0.83

Table 2 shows the mean, SD and t value obtained by kinship among males and females diabetic patients. Results shows that t- value of kinship is 0.83 and the mean score and standard deviation of kinship among males are 72.29 and 13.37. The mean score and standard deviation of kinship among females are 73.21 and 14.39.

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The result indicates that there is no significant difference in kinship among males and females diabetic patients.

Kinship system refers to the roles and relationships of members of a family. It is also defined as a system of social relationships that are expressed in a biological idiom. The diabetic patients are in a stress breeding environment due to several health conditions that lead them to be dependent on any aspect in order to find a distraction from their strict life routine. Here kinship relationships are one of the way through which they find relief and comfort in order to move ahead in life. But in present conditions of nuclear families every relation is maintained through social media or through some other means which lead the relations to be weakened and less satisfied.

**Schaefer, et.al. (1986)** examined supportive and non-supportive family behaviors and their relationship to adherence and metabolic control in 18 adolescents and 54 adults with type 1 diabetes. Social support from family was measured using a diabetes family behavior checklist (DFBC) that was developed for IDDM individuals to assess the frequency of supportive and non-supportive family behaviours that may influence adherence to treatment regimen. (Schaefer et al., 1986). Age and years diagnosed with diabetes information was also collected. Dependent variables of interest included adherence areas (e.g. prescribed insulin injections per day, number of prescribed glucose tests per day, diet adherence, and HbA1c level). In relation to adult participants, the significant finding was that perceived negative family interactions were associated with poorer adherence to glucose testing, diet, and insulin injections.

The above study concluded with the result that if the relationships between their own families is weak, it will also affect their diabetic life. In the present study it finds out that there is no effect of family interactions in their diabetic life, due to emerging technology and present nuclear family situations and opportunity to find a way to reduce their tensions through social media also made them to adapt a lifestyle with less kinship relations.

Therefore, the hypothesis “There is significant difference in role of kinship among males and females diabetic patients” is rejected.

### **Hypothesis 2**

There is significant difference in satisfaction with life among males and females diabetic patients.

***Table 3 Mean, SD and t value obtained by satisfaction with life among males and females diabetic patients.***

Variable	Males		Females		t-value
	Mean	SD	Mean	SD	
<b>Satisfaction With Life.</b>	26.13	5.01	24.58	4.90	1.73

Table 3 shows the mean, SD and t value obtained by satisfaction with life among males and females diabetic patients. Results shows that t- value of satisfaction with life is 1.73 and the mean score and standard deviation of satisfaction with life among males are 26.13 and 5.01. The mean score and standard deviation of satisfaction with life are 24.58 and 4.90.

The result indicates that there is no significant difference in satisfaction with life among males and females diabetic patients.

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Dubey (2007), the present study tried to identify the effective coping strategies, which leads to satisfaction with life, even if one is afflicted with a chronic disease, such as cancer, diabetes or heart ailment. The sample comprised of 180 chronically ill patients (55 diabetics, 55 heart patients, 35 cancer patients and 35 patients who have both diabetes and heart disease). To assess the coping strategies and satisfaction with life, questionnaires were used. The results of the stepwise multiple regression analysis indicated that the use of active coping strategies were effective in promoting the level of satisfaction as a whole and also the present and future satisfaction with life. The findings were discussed in the light of inculcating the use of active coping strategies amongst chronically ill patients.

In the above study the active coping strategies helped to find satisfaction with life but in the case of present study the stress breeding environment and influence of busy life schedule makes the life of a diabetic patient to be less satisfied.

Therefore, the hypothesis “There is significant difference in satisfaction with life among males and females diabetic patients” is rejected.

### **Hypothesis 3**

There is significant difference in resilience among males and females diabetic patients.

*Table 4 Mean, SD and t value obtained by resilience among males and females diabetic patients.*

Variable	Males		Females		t-value
	Mean	SD	Mean	SD	
Resilience	3.04	0.30	3.01	0.36	0.57

Table 4 shows the mean, SD and t value obtained by resilience among males and females diabetic patients. Results shows that t- value of resilience is 0.57 and the mean score and standard deviation of resilience among males are 3.04 and 0.30. The mean score and standard deviation of resilience are 3.01 and 0.36.

The result indicates that there is no significant difference in resilience among males and females diabetic patients.

**Yi et al. (2008)** conducted a longitudinal study to investigate the buffering role of resilience on blood sugar control and self-care behaviour in a sample of 111 patients with diabetes. Resilience was defined as a factor score of self-efficacy, self-esteem, self-mastery and optimism. Results showed that resilience demonstrated a buffering role between HbA1C levels and diabetes-related distress among type 1 and type 2 diabetic patients. Patients with low or moderate resilience levels showed a strong association between rising distress and worsening HbA1C across time, but they found that patients with high resilience did not show the same associations, low resilience accompanied by high distress is associated with fewer self-care behaviours.

In both studies it is mentioned that proper active coping strategies can only help an individual to be resilient, in case of distress can also play a major role to make them less resilient with no difference in both genders.

Therefore, the hypothesis “There is significant difference in resilience among males and females diabetic patients” is rejected.

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### **Hypothesis 4**

There is a significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients.

**Table 5** *The correlation coefficient in kinship, satisfaction with life and resilience among male diabetic patients.*

<b>Variables</b>	<b>Kinship</b>	<b>Satisfaction With Life</b>	<b>Resilience</b>
<b>Kinship</b>	—	0.20	-0.24
<b>Satisfaction with life</b>	0.20	—	-0.05
<b>Resilience</b>	-0.24	-0.05	—

The above table shows that the correlation coefficient of kinship, satisfaction with life and resilience among male diabetic patients. There is correlation for all variables. But there is no significant relation between the variables.

Diabetics is a chronic disease which affects an individual emotionally, socially and psychologically. As India is a patriarchal country or a male dominant country, males have the responsibilities to run and support the family members. Males try to stick on to the responsibilities and mingle more with the outside world than the family. Therefore, the role of kinship plays a very less role in their life and therefore satisfaction with life would be less inside familial relations than in the outside world, as they would find a lot of friends that would help them and be with them. In case of resilience, they would be back in track with the help of the friends or the busy schedules of work which makes them to stay from the tensions of their life. But in the case of diabetic patients, they won't be much cared about their health than their family members. They would love to lead a free life without much personal hurdles and would look forward for their families and friends happiness. So, these all variables are inter connected and correlated with each other.

Therefore, the hypothesis "There is a significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients" is rejected.

### **Hypothesis 5**

There is a significant relationship among role of kinship, satisfaction with life and resilience in females diabetic patients.

**Table 6** *The correlation coefficient in kinship, satisfaction with life and resilience among female diabetic patients.*

<b>Variables</b>	<b>Kinship</b>	<b>Satisfaction With Life</b>	<b>Resilience</b>
<b>Kinship</b>	—	0.50**	-0.29*
<b>Satisfaction With Life</b>	0.50**	—	-0.27*
<b>Resilience</b>	-0.29*	-0.27*	—

\*. Correlation is significant at the 0.01 level (2-tailed).

\*\*. Correlation is significant at the 0.05 level (2-tailed).

The above table shows that the correlation coefficient of kinship, satisfaction with life and resilience among female diabetic patients. There is correlation for all variables and there is significant relationship in kinship, satisfaction with life with positive correlation in level of 0.50\*\*, among female diabetic patients at the 0.05 level. There is significant relationship in

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resilience and kinship with negative low correlation in level of  $-0.29^*$  and there is significant relationship in resilience and satisfaction with life with negative low correlation in level of  $-0.27^*$  among female diabetic patients at the 0.01 level.

Women are the pillars of the family, who are specialised for multitasking. They keep their family first then themselves, therefore looking after their health depends on the family and responsibilities that they take on. They make it sure that all the needs of their family are been satisfied at its time and duties to be completed are done. So, they give more importance for the kinship relations too because for them if the family is at peace, they are also happy. Thus, the satisfaction of life increases and satisfied according to their family and their surroundings to which they belong. In case of resilience, it is a difficult task for females to get back into track after they face any hurdles in their daily life. They are too sensitive in their emotions that makes them insecure and weak so easily than men, so overcoming it will take its own time according to the individuals, it varies due to most of the women goes for job and the maintains their family which makes them to find some extra time to deal with their personal problems, but they find it impossible. Thus, resilience for females is much difficult so they maintain a healthy relationship with everyone around them and make sure that nothing goes wrong from their side that affects their relations.

Therefore, the hypothesis “There is a significant relationship among role of kinship, satisfaction with life and resilience in females diabetic patients” is accepted.

### **Hypothesis 6**

There is a significant relationship among role of kinship, satisfaction with life and resilience in males and females diabetic patients.

***Table 7 The correlation coefficient in kinship, satisfaction with life and resilience among male and female diabetic patients.***

<b>Variables</b>	<b>Kinship</b>	<b>Satisfaction With Life</b>	<b>Resilience</b>
<b>Kinship</b>	—	0.36**	-0.27**
<b>Satisfaction With Life</b>	0.36**	—	-0.16
<b>Resilience</b>	-0.27**	-0.16	—

\*\**. Correlation is significant at the 0.05 level (2-tailed).*

The above table shows that the correlation coefficient of kinship, satisfaction with life and resilience among male and female diabetic patients. There is correlation for all variables and there is significant relationship in kinship, satisfaction with life with positive correlation in level of  $0.36^{**}$  and there is significant relationship in resilience and kinship with negative low correlation in level of  $-0.27^{**}$ , among male and female diabetic patients at the 0.05 level. Diabetics are seen commonly in both the genders i.e. males and females, but females control it through different methods and they are aware of their health conditions than male. Males are more involved in outdoor activities that make them fit and healthy even though diabetics is present within them, as well as they are busy with their work schedules not as females they are multi taskers that they would let their hands reach at every point of their presence to be needed.

**Schaefer, et.al. (1986)** examined supportive and non-supportive family behaviors and their relationship to adherence and metabolic control in 18 adolescents and 54 adults with type 1 diabetes. Social support from family was measured using a diabetes family behavior checklist (DFBC) that was developed for IDDM individuals to assess the frequency of supportive and

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non-supportive family behaviours that may influence adherence to treatment regimen. (Schaefer et al., 1986). Age and years diagnosed with diabetes information was also collected. Dependent variables of interest included adherence areas (e.g., prescribed insulin injections per day, number of prescribed glucose tests per day, diet adherence, and HbA1c level). In relation to adult participants, the significant finding was that perceived negative family interactions were associated with poorer adherence to glucose testing, diet, and insulin injections.

Therefore, family and its relations are an important factor in case of diabetic patients, that gives them satisfaction in their life to an extent. In the case of resilience males are more resilient than females as they are the core of the family and as to handle a lot of responsibilities which makes them empowered in all aspects but weak in emotions because they make decisions mostly based on emotions. so, to overcome from the difficult situations or experience would make them to take time in order to solve and understand and then to overcome it. Thus, if they fall back for once it will affect their satisfaction with life and to bring back on track, they need enough time and space.

Therefore, the hypothesis “There is a significant relationship among role of kinship, satisfaction with life and resilience in males and females diabetic patients” is partially accepted.

### SUMMARY

This chapter contains the general introduction, variables, objectives of the study, hypothesis, methods, major findings of the study, tenability of hypothesis, implications of the study, limitations of the study, and suggestion for the future research. The aim of the study was to find out the role of kinship, satisfaction with life and resilience among diabetic patients.

#### *Variables*

- **KINSHIP:**  
Kinship is a mass of networks of relatedness which radiate from each individual, and this network expresses itself in a biological idiom (Tomkinson 1991).
- **SATISFACTION WITH LIFE:**  
Life satisfaction is defined as the global evaluation of a person’s quality of life based on the person’s own choice (Shin & Johnson, 1978).
- **RESILIENCE:**  
Walsh (1998) Defined resilience as capacity to rebound from adversity strengthened and more resourceful, the qualities of resilience enable people to heal from traumatic wounds, take charge of their lives, and to live fully and love well. It is forged through openness to experiences and interdependence with others.

#### *Procedure*

The data collection is done by using Google form and also using survey method. The diabetic patients were selected randomly. The data collection is done from all around kerala. First of all, researcher obtained consent from each sample. As an initial step the researcher had given a brief description about the purpose of the study. After sharing the objective of the study, reassuring the participants about their anonymity and the confidentiality of the information they provided. The instructions were given that answer the provided questionnaire carefully. All the questionnaires and personal data sheets were bound together and given to the samples selected. They were given adequate information regarding the study. They were asked to read



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the questions and respond as per the instructions. There was no time limit to fill the questionnaire. And also, they were asked not to skip any questions and given the opportunity to clear the doubts. After collecting the data, each questionnaire is scored according to the scoring instructions and manual.

### *Statistical techniques*

The data collected from the survey will be entered into a computer files for analysis.

- Descriptive statistics was used to calculate the mean, median, mode, standard deviation, skewness and kurtosis.
- Student t- test was used to test whether there is statistical difference between males and females among diabetic patients on kinship, satisfaction with life and resilience.
- Correlation analysis was used to assess the relationship between the study variables, kinship, satisfaction with life and resilience.

### *Major Findings of the Study*

1. Results shows that there is no significant difference in role of kinship among males and females diabetic patients.
2. Results shows that there is no significant difference in satisfaction with life among males and females diabetic patients.
3. Results shows that there is no significant difference in resilience among males and females diabetic patients.
4. Results shows that there is no significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients.
5. Results shows that there is a significant relationship among role of kinship, satisfaction with life and resilience in females diabetic patients.
6. Results shows that there is a significant relationship among role of kinship, satisfaction with life and resilience in males and females diabetic patients.

### *Tenability of Hypothesis*

- **Hypothesis 1** There is significant difference in role of kinship among males and females diabetic patients.  
There is no significant difference in role of kinship among males and females diabetic patients. Hence Hypothesis 1 is rejected.
- **Hypothesis 2** There is significant difference in satisfaction with life among males and females diabetic patients.  
There is no significant difference in satisfaction with life among males and females diabetic patients. Hence Hypothesis 2 is rejected.
- **Hypothesis 3** There is significant difference in resilience among males and females diabetic patients.  
There is no significant difference in resilience among males and females diabetic patients. Hence Hypothesis 3 is rejected.
- **Hypothesis 4** There is a significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients.  
There is no significant relationship among role of kinship, satisfaction with life and resilience in males diabetic patients. Hence Hypothesis 4 is rejected.
- **Hypothesis 5** There is a significant relationship among role of kinship, satisfaction with life and resilience in females diabetic patients.  
There is a significant relationship among role of kinship, satisfaction with life and resilience in females diabetic patients. Hence Hypothesis 5 is accepted.

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- **Hypothesis 6** There is a significant relationship among role of kinship, satisfaction with life and resilience in males and females diabetic patients. There is a significant relationship among role of kinship, satisfaction with life and resilience in males and females diabetic patients. Hence Hypothesis 6 is partially accepted.

### *Implications of the Study*

The study was to find out the role of kinship, satisfaction with life and resilience among diabetic patients. The findings shows that the role of kinship, satisfaction with life and resilience among male and female diabetic patients are of same level.

India is a patriarchal country where males are given dominant positions and the one to work outside and support the family financially. At the same time females are meant to be a multitasker as they should look after whole family and also if they are doing any job, so they needed to be more conscious about their health and of the other members in the family which is possible, but sometimes at midst of this hustle life females couldn't care much of their own, but they manages it to an extent. Females gives more importance for the familial relations mainly kinship relations due to they strongly rely on relationships and they are emotionally attached to it, were as males they are attached much to the outside world as per their busy lifestyle. Males takes on the responsibility to look after everyone, so they tied to every contacts of their family. Females takes on and sticks to the responsibilities they take and are very attached to complete it by looking the pros and cons from all the sides of the family they belong. Males becomes more dependent on to the females of the house for every single need because of the stereotypical norms that a female is responsible for each and every thing that happens in a happen and it is there sole responsibility to take care of the family and males to make financially stable, so females always have to be respect and obey the norms in the family and the society, irrespective of whatever consequences they have to face. So, in short women makes the family to come under one shelter of care and concern with unconditional respect and love for everyone were as men takes less risk of this matter.

The satisfaction of life which is more for females than males, because males work in the busy competent world were each and every human runs behind their needs to which they are not satisfied at any point of life, they strive for success even when they knew that they achieved the highest to which they can. But in the case of females, as they are emotionally sensitive if the family is at peace, she is satisfied or else if their needs which is small ones if they are done, they are fine. They seek day to day life and fulfils the needs of everyone who surrounds them in order to be satisfied with their life.

Males are more resilient than females because males are always busy in their work schedules and they would have leisure time that they spend with their friends which gives them a nap from the tensions around them. But in the case of the females, day and night always on the fight with the daily hustle- bustle routine, which makes them physically, mentally weak, so they couldn't think any further of any situations that comes in front of them, so they reacts and if they went wrong, they are pushed back so hardly that it will take time to win them back into their joyous hustle life.

Beyond these they go through a difficult phase of life (diabetics) in which they have to adapt to their health conditions which can vary at any point, emotionally they would as they think of how to face the world with limitations and at the same time they have to be active in order

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to keep everyone around them to be happy and active. But still there is a gap in which they are left lonely and it is to be filled by the generations to come.

### *Limitations of the Study*

- Samples were only collected from few places, further studies can incorporate more areas and more fulfill to arrive to a better picture.
- Demographic variables such as income, geographical locations etc must be controlled in order to get better understanding of the problem.
- In further study more qualitative data and analysis can be included.
- The sample size was limited to 124. A large sample would give wider scope for generalizing the result.
- Doubtfulness about the questionnaire may influence the result.
- Only one population was added in this study for the purpose of comparison.
- Honesty of the samples may be affected in the results.

### *Suggestions for the Future Study*

- The future study can be including other socio demographic details such as economic status, family size, details about the income source, occupation etc.
- More sample size can be helpful in generalizing the result.
- In future study more qualitative data and analysis can be included.
- More variables can add for assess more detailed characteristics about the population.

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