

## Health Lifestyle and Self-Esteem as Correlates of Diabetes Distress among University Employees: Implication for Thriving at Work

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**Abstract:** This study explored health lifestyle and self-esteem as correlates of diabetes distress among University employees accessing diabetes medical treatment at Chukwuemeka Odumegwu Ojukwu University Medical Centre Igbariam Campus and NnamdiAzikiwe University Medical Centre Awka both in Anambra State, Nigeria. The participants were 84 (eighty-four) diabetic patients who comprised 58 (fifty-eight) females (65%) and 26 (twenty-six) males (35%) whose ages ranged from 43 to 61yrs with a mean age of 57.05yrs and standard deviation of 3.04yrs. The method of sampling was purposive sampling technique. Correlation design and Pearson Product Moment Correlation Coefficient was adopted as the appropriate design and statistical tool to analyze the data respectively. The result confirmed that health lifestyle significantly and negatively correlated diabetes distress among university employees at  $r(1, 84) = -.518^*$ ,  $p < .05$  and self-esteem significantly and negatively correlated diabetes distress among University employees at  $r(1, 84) = -.793^*$ ,  $p < .05$ . It is recommended in view of its implications on employees' health and thriving at work, that social and psychological treatment paradigms be encouraged at diabetes medical centres to improve the efficacy of orthodox treatment.

**Key words:** Diabetes distress • Health lifestyle • Self-esteem • Thriving at work • University employees

### INTRODUCTION

Feeling invigorated and achieving vitality are positive feelings in the workplace associated with several employee, job and organizational outcomes such as: disposition to learn, growth in skills and competence and having the motivation to achieve results. These positive feelings in no small measures contribute to job and organizational outcomes in terms of quantity and quality of productivity. Employees who are associated with these positive feelings are said to be thriving on their jobs [1]. Thriving at work is a psychological state composed of joint experience, vitality and learning [2]. People who are thriving, experience growth and momentum marked by a sense of feeling energized, alive (vitality) and a sense that they are continually improving and getting better at what they do (work). Spreitzer and Sutcliffe [3] also, conceptualized thriving as willing to learn and grow and

having opportunities; when individuals grow they consider themselves to be expanding in ways that reflect enhanced self-knowledge and effectiveness. Without thriving at work, efficiency, effectiveness and job satisfaction will be elusive. Boyd [4] asserted that thriving at work in an organization involves active intentional engagement in the process of personal growth although, regrettably, this may be hampered by the burdens of ill health such as diabetes distress which may be a correlate of employee's health lifestyle and self-esteem.

Diabetes distress is emotional burden of diabetes. It is conceptualized as experiencing the emotional burden of having diabetes and feeling drained mentally and physically on a daily basis. Fisher *et al* [5] opined that diabetes distress is also feeling drained mentally and physically on a daily basis and feeling that one's life in under control by the disease.

Generally, people who have diabetes distress are angry, scared and/or depressed when they think about diabetes and the feeling that diabetes controls their lives. Diabetes distress is also characterized by the feelings of loss of hope of ever recovering, lack of confidence and capacity of fulfilling the routine requirements in lifestyle changes needed for the management of the disease. The distress is also characterized by the burden that the disease has no permanent cure yet with most patients dying during treatment [6]. Outside this, there is also social stigma associated with the disease. Many people see people suffering from diabetes as people who are terminally weak and about to die. This has made diabetes to be compared with those endemic diseases such as AIDS and cancer, hence the source of distress associated with it. The extent to which these conditions precipitate distress on the diabetes patient in the researchers' view may be associated with the patients' levels of health lifestyle and self-esteem.

Health lifestyle refers to one interests, opinions, behaviors, orientations regarding those aspects of life that significantly affect his or her health e.g. nutrition, alcohol use, physical exercise etc. [7]. Health lifestyle achievements depend on individuals' needs and the environment around them. There are many reasons for the disparity in lifestyle patterns among the people from the same country and even in the same city. These differences have been discovered to be as a result of social variation, geographical area and education level. Consider that people who live in poverty or in low social class category have a poor chance of survival. In other words, individuals who behave healthily are more likely to be found in higher social classes. Poor people care less about the standard of their living due to lack of resources for good diet and healthy lifestyle. For instance, a less nutritious diet may be chosen because of restrictions on income or in adequate food distribution in their area. Less physical activity may be undertaken because of lack of leisure facilities in low class areas or the poor salary they get to make use of them. On the other hand, some situations are the result of a much greater degree of choice. Outside the lifestyle circles, internal evaluation of a person's self-worth may also be contributory to improve coping capacities of patients with diabetes which may indirectly leverage on the feelings of distress perceived by the patient.

Generally, self-esteem is considered as the evaluative component of the self-concept, perceived self-worth a broader representation of the self that includes cognitive and behavioral aspects as well as evaluative or affective ones [8]. Self-esteem also refers to our positive and

negative evaluation of the self. It is an individual sense of his or her value or worth, or the extent to which a person values, appreciates, approve of, prizes, or likes him or herself. The evaluation of the self is very important in the health sector because it determines a number of things including lifestyle, belief in the treatment efficacy, commitment to treatment prescription and adherence to certain prescribed medical and treatment conditions which are adjudged in the interest of management of the ill-health.

In diabetes disease treatment and management, self-esteem may be key to the challenging situations of adjustment to expected change in lifestyle for the best management of the ailment, change in diet, supplements, physical activities, personal self-care. These and more make self-esteem an integral part of success in the treatment and management of diabetes disease especially with reference to the distress associated with it.

Basically, the problem with diabetes distress among any workforce is reduced engagement on the part of the employees due to reduced man-hour occasioned by changes in lifestyle and the time required for medical follow up. How employees can adapt to these challenges might be dependent upon how the employees can draw up their internal energy (high self-esteem) and how the employees embrace healthy lifestyle. In line with the above, the researchers have conceptualized that with improved lifestyle changes of the patients and their psychological strength as may be epitomized by high self-esteem to adjust to coping challenges of diabetes disease. Consequently, the following pertinent questions arise.

- Will health lifestyle significantly correlate diabetes distress among university employees in Anambra State?
- Will self-esteem significantly predict diabetes distress among university employees in Anambra State?

Despite the considerable progress in treatment of diabetes over the years, it is still among the commonest causes of morbidity and mortality worldwide [6]. In Nigeria, the situation is even more precarious and worse because of poor educational background of greater number of Nigerians, high cost of living and low standard of living in the country and host of other factors [9]. Equally, government's sensitization on the ailment has practically been poor; hence, awareness on the coping and management of the disease is perpetually low among Nigerians most especially in the rural areas where 70% percent of the country's population reside [9].

Globally, the associated health care cost of diabetes disease is enormous. In 2011, it was estimated that 147 million adults in Africa had diabetes. South Africa had one of the highest numbers of people with diabetes (1.9 million) and about 6.1% of deaths in Africa were attributed to diabetes. Given the population of Nigerians, the figures may even be worse in the country with people who are dying daily from diabetes on the increase annually [10].

The commonest problem and challenge in the “sugar disease” is that the chronic nature of this disease and its related complications which requires strict monitoring to ensure optimal glycaemic control. This is achievable through affording individuals with diabetes access to comprehensive diabetic care including self-management education [11]. Shrivasta, Shrivasta and Ramsamy [12] emphasized that in order to enhance glycaemic control, individuals with diabetes must engage in lifestyle changes and sufficient self-care practices (exercise, eat healthy, adhere to medication, monitor glucose levels and have a normal body mass index, foot care, etc.). This diabetic care and self-management lifestyles may present challenges to work due to required lifestyle changes which may negatively affect thriving at work if the coping of the individual precipitates distress.

Distress is extreme form of anxiety, mixed feeling of sorrow, pain or discomfort felt by someone over an event or situation. Distress is more psychological than physical pain because someone may apparently feel distressed with or without actual or real causes. Distress may also be a product of one’s imagination in this case creating psychological pain or discomfort which may equally impair other physiological and physical function of the sufferer or the victim. Distress is associated with our everyday life due to inherent stressors in our environment which are more likely to be causative agents. Diabetes distress is emotional burden of diabetes; feeling drained mentally and physically on a daily basis and feeling that one’s life is under control by diabetes as measured by Fisher, Glasgow, Mullan, Skaff & Polonsky [5].

Inability to cope with the pressures presented by stressors is the major known causes of distress. Stressors can present physical or emotional, internal or external challenges which the sufferer needs to cope with and adapt to without which distress will be remediate effects. Stressors can be in form of events, situations, people or demands which the individual perceives to be a source of stress which the person has little or no coping capacity [13]. The most common stressor in life is change, such as: loss of loved ones, career change, diseases, illness or injury and lifestyle changes. These stressors also vary

among people, children, teens and adults who are capable of experiencing stress at different degrees with varying degrees of coping. Yet, there are some stressors that are specific to the age or type of person. It is the poor coping capacity in terms of illness and diseases that result to distress such as diabetes distress among patients.

Lifestyle is a manner of living that reflects individuals’ behaviour, attitude, thought and beliefs. Regardless of the improvement in health services, healthy lifestyle is major factor that influences how wonderful a person’s life is. Healthy lifestyles are not what we think healthy but what research addressed as healthy. Many factors affect lifestyles such as; people’s needs and cultures. Lifestyles factors have greater influence than genetic factors on the health status of the individuals. In order to achieve a healthy community, the multidisciplinary approach is essential [7]. Differences in lifestyles among people are due to their socioeconomic classes, living area and the educational level. There is overwhelming evidence that show a strong relationship between the lifestyles factors, diseases risk factors and diseases treatment.

Self-esteem also refers to our positive and negative evaluation of the self. It is an individual sense of his or her value or worth, or the extent to which a person values, appreciates, approve of, prizes, or likes him or herself as measured by Rosenberg [14]. While the construct is most often used to refer to a global sense of self-worth, narrower concepts such as self-confidence or body-esteem are used to imply a sense of self-esteem in more specific domains [15].

Some individuals have higher self-esteem than others do- an attribute that can have a profound impact on the way they think and feel about themselves. It is important to keep in mind, however, that although some of us have higher self-esteem than others, a feeling of self-worth is not a single trait etched permanently in stone. Rather it is a state of mind that varies in response to success, failure and changes in fortune, social interactions and other life experiences [16].

There is individual variation on how people cope but for everyone, coping is an important dimension of adjustment [13]. Coping is the process of managing tasking circumstances, expending effort to solve personal and interpersonal problems and seeking to master, minimize, reduce or tolerate stress. A stressful event can be rendered considerably less stressful when a person copes with it. According to Lazarus and Folkman [13] appraisal and problem-focused coping are important aspects of effectively coping with stress. Stress management involves making emotional and physical

changes as may be required by diabetic patients. The degree of stress and the desire to make the change will determine the level of change that will take place. Before discussing coping with stress, let us first see how stress is prevalent and then look at the various measures of how to manage and cope with stress.

Since stress is always with us, we cannot eliminate stressors from our environment. What we can do is to adapt ourselves to stressful situations. We have to develop and make use of coping skills and thus get our stressors and their effects adequately undulated and controlled. The effect stress has on one depends on how one handles it, how one handles stress depends on one being able to recognize it, knowing where it is coming from and understand your stress-management options. The best can be chosen out of the prevalent situation. The following general practice can help to manage and cope with stress before, during and after stressful situations [13].

Exercises relax tense muscles and help one to sleep. Exercise has a number of other positive benefits. It improves blood circulation and flow to the brain bringing additional sugar and oxygen which may be needed when you are thinking intensely. It also causes the release of chemical called endorphins into your blood stream. These give you a feeling of happiness and well-being. Meditation is an effective method of relaxation. It gives the body time to relax and recuperate and clear away toxins that may have built up through stress and mental or physical activities. Meditation can have the following beneficial effects: lowers blood pressure, slows breathing, helps relaxes the muscles, helps in clear thinking and making choices, helps with focus and concentration.

Attitude (health lifestyle) helps to manage stress. Different individual's attitude to stress determines how they perceive it and take it.

Bio-feedback a system of using electrical gadgets to record, amplify and feed the stress victim with the physiological state of his/her body and its working so that the individual gradually begins to adjust himself and control and manage his/her stressful situation. Such physiological state may include either blood pressure or muscle tension. After bio-feedback, the level of the pressure gets lowered and the muscle tension relaxed. The bio-feedback exercise is usually carried out by means of a machine to which stress patient is connected with an attached screen to release feedback information to the patient.

Relaxation oriented experiences include viewing the television, video or reading novels. Also, listening to jokes and humorous statements, observing cartoons, crampions and diagrammatic innuendoes, watching play and dramas and auditing a lovely piece of music can significantly reduce it. Finally, stress patients who feel their stress situation going off hand should consult professional counselors or therapists trained in stress management. Once they go-off hand a qualified medical personnel should be consulted.

Self-enhancement theory [17] postulated that low self-esteem individuals commonly engage in "damage control". They lack confidence about their ability to succeed and to prevent further erosion of their self-esteem, they commonly withhold task-related effort. This lack of effort then becomes the justification for their poor performance rather than more enduring problems like lack of ability, "thus, the low self-esteem person's failure may reflect a rational decision to exert low effort rather than irrational consistency with the self-perceptual inadequacy" [15]. In precise term, the theory argues that humans are always in constant struggle to enhance their self-esteem despite their conditions.

Connotatively, in organizational setting, many employees may not have the need of the organization in mind but rather how to enhance their regard and acceptance in the organization. That is, they may have the need to enhance their self-esteem as their primary objective while the goal of the organization may be taken as their secondary objective, thereby being relatively low in their commitment to the organization.

Terror management theory [18] was inspired by the writings of cultural anthropologists who synthesized ideas from the natural sciences, social sciences and humanities to formulate what he hoped would become "a general science of man". According to the terror management theorists Greenberg, Pyszczynski and Solomon [17], self-esteem is a protective shield designed to control the potential for terror that result from awareness of the horrifying possibility that humans are merely transient animal groping to survive in a meaningless universe, destined only to die and decay. From this perspective then, each individual's name and identity, family and social identifications, goals and aspirations, occupation, identity and title are humanly created adornments designed or naturally developed to protect ones image from social abuse or terror, hence the development of self-esteem. But it is this elaborate drapery that provides us with the fortitude to carry on despite the uniquely explained awareness of our mortal fate.

### Conceptual Model of the Study:

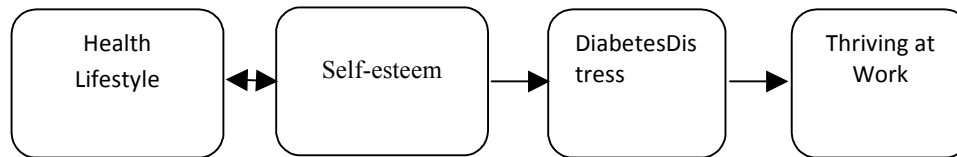


Fig. 1: Conceptual model which explains the association of the variables of the study: health lifestyle, self-esteem, diabetes distress and thriving at work.

From the conceptual model above, it could be seen that health lifestyle has a dyadic relationship with self-esteem; whereas self-esteem correlated diabetes distress. The prevalence of diabetes distress among employees is expected to lower employees' thriving at work due to the lifestyle and coping challenges that may be associated with the disease and the patients adjustment to these challenges.

**Hypotheses:** In line with the above conceptual model of the study, the following hypotheses were formulated to guide the study:

- Health lifestyle will significantly correlate diabetes distress among university employees in Anambra State.
- Self-esteem will significantly correlate diabetes distress among university employees in Anambra State.

**Subjects and Methods:** Participants of the study were drawn from university employees who were accessing diabetes medical treatment at Chukwuemeka Odumegwu Ojukwu University Medical Centre Igbariam Campus and Nnamdi Azikiwe University Medical Centre Awka both in Anambra State, Nigeria. The participants were 84 (eighty-four) diabetic patients who comprised 58 (fifty-eight) females (69%) and 26 (twenty-six) males (31%) within the age range of 43-61yrs with a mean within a mean age of 57.05yrs and standard deviation of 3.04yrs. The method of sampling was purposive sampling technique. Among the participants, 13(15.5%) were not married, 57 (67.8%) were married and 14 (16.7%) were widowed. The questionnaires were administered by proxy through the medical officers who were staff of the University medical centres after approval was obtained to carry out the study in the university centres.

**Measurement:** Three instruments were used for the study namely: Diabetes distress screening scale by Fisher *et al.* [5], Fantastic health lifestyle questionnaire by Anez *et al.*

[7] and Self-esteem scale by Rosenberg [14]. In addition demographic variables such as gender, age and marital status were also added in the instrument used in the study.

Diabetes distress screening scale was developed by Fisher *et al.* [5]. It is a 17-item scale that measures emotional burden of diabetes; feeling drained, mentally and physically on a daily basis and feeling that one's life in under control by diabetes. The authors reported an internal consistency of .80 for the scale. The scale is in a 6-point Likert format ranging from "Not a problem = 1 to "A very serious problem = 6". For the purpose of using the instrument in this study, a pilot study was carried out to enhance the validity and reliability of the instrument in the present study. Correlation with Beck's anxiety scale was significant at .78 with Cronbach's alpha reliability measure of .71.

Fantastic Lifestyle Questionnaire was developed by Anez *et al.* [7]. It is a 25-item questionnaire that measures health lifestyle as regards interests, opinions, behaviors, orientations regarding those aspects of life that significantly affect his or her health e.g. nutrition, alcohol use, physical exercise etc. The authors reported internal consistency of .72 for the scale. The scale is made up of 9 sub-scales measuring: Family & friends support, Activity, Nutrition, Tobacco & toxics, Alcohol intake, Sleep, Seatbelt, Stress & Safe sex, Type of behaviour, Insight & Career. The scale is a 5-point Likert format ranging from "Almost never = 1 to "Almost always = 5". For the purpose of using the instrument in this study, a pilot study was carried out to improve the validity and reliability of Fantastic Lifestyle Questionnaire in the present study which yielded an internal consistency of .73 confirming that the instrument is suitable for the current study.

Self-esteem scale is a 10-item questionnaire developed and validated by Rosenberg [14]. The scale measures positive and negative evaluation of the self. It also measures an individual sense of his or her value or worth, or the extent to which a person values, appreciates,

approve of, prizes, or likes him or herself. The author obtained an internal consistency of .89 for the scale. The scale is a 4-point Likert format from “Strongly disagree = 1 to “Strongly agree = 4”. Items 2, 5, 6, 8 & 9 are in reverse order while the rest are direct scores. For the purpose of using the instrument in this study, a pilot study was carried out to improve the reliability of Self-esteem scale in the present circumstance and an internal consistency of .84 was obtained confirming that the instrument is suitable for the current study.

**Statistics:** The design adopted for this study was correlational survey design while Pearson product moment correlation coefficient was adopted as the appropriate statistical tool to analyze the data.

## RESULTS

Table 1: Summary table for descriptive statistics of variables tested in the study showing participants' mean score and standard deviation on diabetes distress, health lifestyle and self-esteem.

	Mean	Std. Deviation	N
Diabetes distress	59.4014	2.3056	84
Health lifestyle	87.2180	4.1024	84
Self-esteem	26.6015	2.0744	84

Table 2: Zero order correlation matrix summary table showing correlations coefficients among variables of the study namely: diabetes distress, health lifestyle and self-esteem

	1	2	3
1. Diabetes distress	1.00		
2. Health lifestyle	-.518*	1.00	
3. Self-esteem	-.793*	.640*	1.00

Bold = r value for significant correlations at \* $p < .05$ ,  $n = 84$ . Independent Variables = Health lifestyle and Self-esteem. Dependent Variable = Diabetes distress.

From table hypothesis one which stated that health lifestyle will significantly correlate diabetes distress among university employees was confirmed at  $r(1, 84) = -.518^*$ ,  $p < .05$ . This statistical evidence as shown in the correlation matrix table above implies that as health lifestyle has a negative relationship with diabetes distress.

Also, from table, the second hypothesis which stated that self-esteem will significantly correlate diabetes distress among University employees was confirmed at  $r(1, 84) = -.793^*$ ,  $p < .05$ . This statistical evidence as shown in the correlation matrix implies that self-esteem has a negative relationship with diabetes distress.

## DISCUSSION

From the result in hypothesis I which confirmed that health lifestyle significantly correlated diabetes distress among University employees; this finding is in consonance with of the study done in Nigeria by Okolie, Ehiemere, Iheanacho and Kalu-Igwe [19] which confirmed positive attitudes toward dietary modifications and toward regular exercise reduced the associated distress among diabetic patients. This is a major form of lifestyle variation which characteristically influences human health and is line with the finding of the current study which portrays that lifestyle may be of influence to the nature of distress suffered by diabetic patients. Equally, Ayele, Tesfa, Abebe, Tilahun and Girma [20] also supported the earlier findings of the above study. Their results were similar in terms of diet and medication adherence, showing that those who adhere to diet and medication adherence (a type of health lifestyle) reported less diabetic related problems. The finding is also supported by Coping theory of stress by Lazarus and Folkman [13] which suggests that there are individual variations on how people cope but for everyone, coping is an important dimension of adjustment to changes including health and lifestyle changes.

Hypothesis II was also confirmed showing that self-esteem significantly correlated diabetes distress among University employees. This implies that self-esteem has a negative relationship with diabetes distress among University employees. This finding is supported by Mukhopadhyay, Paul, GDas, Sengupta and Majumder [21, 22] who carried out a cross sectional study on perceptions and practices of participants with type 2 diabetes. Their finding showed that self-worth and value may pattern behavioral reaction to diabetic condition including treatment and illness distress and management. Equally, Odilli *et al.* [10] study confirmed the earlier findings above. Their study was to evaluate knowledge and self-care practices in diabetic patients and their role in disease management among type 2 diabetics. Their result showed that participants had good knowledge regarding diabetes. It also indicated that these participants had a least a formal education which boosts self-esteem on their condition.

**Implication of the Study:** Success on disease and illness treatment may be elusive without holistic approach on the influences of lifestyle, personal dispositions and belief systems on coping as well as efficacy of treatment of diseases and illnesses. This has proven useful especially

where orthodox approach has failed; there is need for social and psychological paradigms to be introduced into treatment procedures. This study has succinctly provided empirical insights into the extent of efficacy such paradigms might bring to patients. In the instance of the current study, healthy lifestyle and high levels of self-esteem were associated with lower diabetes distress. Equally, without proper management of diabetes and other ill health among employees rarely can the employees thrive at work. Without thriving at work, a number of negative job, employee and organizational outcomes may emanate.

**Limitations:** The current research findings no doubt have a number of limitations and challenges. Vulnerability to diabetic distress may have an interwoven boundary with other life factors which may cause other sources of distress to be ignored on the assumption the distress suffered by the diabetic patients are diabetes related.

**Recommendations:** There is need for future studies to control other sources of human distress as to measure only the real impacts of diabetes distress on a number of organizational outcomes. There is also need to identify which aspects of health lifestyle correlated high diabetes distress among employees.

## CONCLUSIONS

Diabetes disease (sugar disease) has created a lot of distress among patients including; death phobia, anxiety on the cost of treatment and management and lifestyle changes for its survival as well as distorted workplace patterns. The result confirmed that both predictor variables (lifestyle and self-esteem) significantly and negatively correlated diabetes distress among patients. In view of its impacts on thriving at work, it is recommended that counseling units or departments be instituted in hospitals to help introduce socio-cognitive and psychological treatment paradigms in addition to the traditional orthodox treatment to boost higher success rate in combating the disease psychologically and medically.

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