

**PSYCHIATRIC SYMPTOMS, TYPE A PERSONALITY PATTERN AND STRESS
COPING STRATEGIES OF DIABETIC AND NON- DIABETIC PATIENTS.**

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ABSTRACT

Research studies on Diabetic patients have revealed that stress and coping strategies are some of the significant powerful determining causal factors responsible for such disorder. The present study examined the extent to which Diabetic patients are different from the Non-Diabetic Patients with respect to the types of psychiatric symptoms, Type A personality and stress coping strategies.

Two groups of patients (30 Diabetic patients suffering from Type I and II Diabetes and 30 Non-Diabetic patients suffering from physical illnesses, like mild to severe headaches, knee pain, etc.) who are getting treatment from one of the premier hospitals at Coimbatore provided data on above mentioned three variables through standardized measures. The data were analyzed using Student's Paired 't' test to find out the difference between Diabetic and Non-Diabetic groups.

Diabetics tend to have high score on Psychiatric Symptoms, Type A Personality pattern than the other Non-Diabetic Patients. Further, Diabetics are more likely to engage in dysfunctional stress coping strategies such as self-blame, blaming others, ruminating, and catastrophizing than the Non-Diabetic Patients. The implications of the results are discussed with possible interventions to improve the coping skills of the Diabetic.

PSYCHIATRIC SYMPTOMS, TYPE A PERSONALITY PATTERN AND COPING STRATEGIES BETWEEN DIABETIC PATIENTS AND GENERAL PATIENTS.

INTRODUCTION

Recent investigations reported an increased prevalence of psychiatric illnesses, especially affective disorders and anxiety states among the patients with Diabetes. Patients with psychiatric illness, particularly depression, evidenced poorer glucose regulation than did patients who had no psychiatric diagnosis (Lustman and Clouse, 2002; Sridhar, 2007). These findings appeared similarly true for patients with either insulin-dependent Diabetes Mellitus or non-insulin dependent Diabetes Mellitus. Exploring the potential role of psychological factors such as stress levels in Diabetic patients, belief regarding the causes of Diabetes, the availability of social support, the type of life style or behavior that could impair glycemic control etc will facilitate in enhancing the efficacy of the measurement of Diabetes and in minimizing further the risks of adverse complications arising out of Diabetes.

Diabetes is a disease that results from either pancreatic (beta cell) failure (Type 1 Diabetes) or insulin resistance (Type 2 Diabetes). In 1995, an estimated 135 million people worldwide had Diabetes. The World Health Organization estimated that the number of people with Diabetes in the World would reach 300 million by 2025 (WHO, 2007). Psychosocial issues have long been acknowledged to have a crucial role in the successful treatment of people with Diabetes. An understanding of these issues can enable the individual patients understand their problems effectively. It will further facilitate the health care providers and care givers to address the cognitive, emotional and behavioral issues surrounding Diabetes Management. Hence, health care professionals should explore the potential role of psychological factors by asking open-

ended questions about stress in patients' lives, the availability and quality of social support, behavior that could impair glycemic control and patients' belief regarding the cause of their Diabetes, the risk of complications and the possible impact of those factors on the efficacy of their treatment.

Type A Behaviour:

Several researches had reported that the following are the typical characteristics of Type A Personality: urgency, impatience, aggressiveness which show up as impatience, rudeness, being easily upset over small things and excessively strong achievement-orientation. They also seem to show such physical characteristics as facial tension, tongue clicking, teeth grinding, dark circles under eyes, facial sweating (Scott, 2007). Patients with coronary heart disease were likely to have negative effects such as hypertension, job stress; social isolation (Mudgil et al., 1992; Scott, 2007) and these behaviours were also found to be common among Diabetics as well. Research reports revealed that Type-A behaviour measure showed significant relationship to occupational stress and work motivation in relation to age, job level and overall well-being among nursing professionals (Virk et al., 2001). People with Diabetes were twice as likely to have depression compared to those without Diabetes and also found to have more complexities in management of Diabetes or to neuro-hormonal abnormalities. (Gonzalez. et al., 2007; Sridhar. 2007). Anxiety or stress precipitates into a series of disorders like almost all psychosomatic diseases viz., hypertension, Diabetes and even cancer.

Emotional regulation refers to all the strategies that are used to reduce, maintain or increase emotions (Gross, 2001). Diabetes patients are found to experience more stress than the normal respondents and that Diabetes is found to be significantly affecting the adjustment and

stress levels of individuals (Chouhan and Shalini, 2006). Reviews suggested that Diabetes and depressive disorders are found to be significantly related (Jacobson et al, 2002). Thus people with Diabetes tend to show other psychological disturbances. Any psychological disease has some relation with their coping skills as they are concerned with the reactions. These reactions can best be understood with coping strategies and one such coping style is Cognitive Emotional Regulation Strategies. Emotional Regulation Strategies are implicated in personality, emotional, cognitive, and social development, including resiliency. When they are biased, they also play a prominent role in the development and maintenance of emotional disorders. In fact, the concept of emotional regulation is very broad and encompasses a wide range of conscious and unconscious physiological, behavioral and cognitive processes (Gross, 2001). Garnefski et. al. (2002) showed that people, who resort to adaptive strategies, report fewer depression and anxiety symptoms than people, who use non-adaptive strategies. It is reported that less Hardy individuals, who are more likely to engage in distancing, avoidance and emotionally focused coping strategies and individuals who score high on Hardiness measures are more likely to engage in problem-focused, active and support seeking stress coping strategies (Williams et.al, 1992).

The present study was undertaken to explore the extent to which Diabetes vary from Non-Diabetes with respect to Type A Personality traits, type of stress coping mechanisms and psychiatric symptoms particularly depression etc. Such detailed exploration of personality assessment among Diabetes might further clarify the relationships between psychological characteristics and glucose regulation and thereby improve health care professional's ability to predict Diabetes control in the proper direction.

Objectives of the Study

The primary objective of this study is to find out the difference between Diabetic and Non-Diabetic patients in relation to Cognitive Emotion Regulation Strategies, Type A Personality pattern and Psychiatric Symptoms.

METHODOLOGY

Sample

The sample consisted of 30 Diabetic and 30 Non-Diabetic patients from a private nursing home at Coimbatore whose age ranged from 35 to 50 years. Diabetics were both Type I and II. The Non-Diabetic Patients were found to be suffering from minor to severe physical problems such as chronic headache, joint pain, stomach ache etc.

Measures

i) Cognitive Emotion Regulation Questionnaire (CERQ), (Garnefski, 2002.): The CERQ is a 36 item self-reporting questionnaire with a 5 point Likert response format (1 Almost Never to 5 Almost Always) designed to evaluate the cognitive aspects of emotional regulation (Garnefski. et al, 2002). The questionnaire is introduced as follows: “Every one gets confronted with negative or unpleasant events now and then and everyone responds to them in his/her own way. With the following question, you are asked to indicate, what you generally think, when you experience negative or unpleasant events.

This questionnaire consists of nine dimensions such as:

a) *Acceptance*: (Having thoughts of acceptance and resignation with regard to what one has experienced. e.g. I think that I have to accept that this has happened).

b) *Positive Refocusing*: (Having positive, happy and pleasant thoughts instead of thinking about threatening and stressful events. e.g. I think of nicer things that I have experienced).

c) *Refocus on Planning*: (Having thoughts about what to do and how to handle the experience one has had. e.g. I think of what I can do best)

d) *Positive Reappraisal*: (Having thoughts the goal of which is to give a positive meaning to the negative events in terms of personal growth. e.g. I think I can learn something from the situation).

e) *Putting into perspective*: (Having thoughts that realize the negative event compared to other events; e.g. I think that it all could have been much worse).

f) *Self-blame*: (Having thoughts that blame oneself or what one has experienced. e.g. I feel that I am the one to blame for it).

g) *Rumination*: (Having thoughts about the feelings and thoughts that are associated with negative events. e.g. I often think about how I feel about what I have experienced).

i) *Catastrophizing*: (Having thoughts that emphasize the negativity of the experience. e.g. I continually think how horrible the situation has been).

j) *Blaming others*: (Having thoughts that blame others for what one has experienced. e.g. I feel that others are to blame for it).

These nine dimensions were classified into two categories as Adaptive Strategies (Acceptance, Positive Focusing, Refocus on Planning, Positive Reappraisal and putting into Perspective) and Non-Adoptive Strategies (Self-Blame, Rumination, Catastrophizing and Blaming Others).

ii) Type A personality Questionnaire

In order to measure the personality style of the participants, Type A Personality Questionnaire developed by Freidman and Rosenman (1974) was used in this study. This questionnaire consisted of 20 questions and the subject has to respond to each question by marking 'Yes' or 'No'. Each "Yes" response would be given 1 score and the 'No' response '0'. The validity and reliability of the inventory ranges from .80 to .85.

iii) Psychiatric Disturbance

In order to measure the psychiatric disturbances among the Diabetic and Non-Diabetic Patients, a questionnaire developed by Fila Bavi Technical Committee, which comprised of Swedish and Vietnamese epidemiologists, Medical Doctors, and Public Health Experts (WHO, 1994) was used. It consisted of 20 questions which have to be answered by marking 'yes' or 'no' depending on the presence or absence of symptoms. Each "Yes" response was given 1 score and "No" response 0. It means that one can get a maximum score of 20. This questionnaire has been found to be reliable, valid and adaptable to screen of mental disorders.

Procedure

A set of three questionnaires were administered to 60 patients (Diabetics–30 and Non-Diabetics–30). All of them were out-patients, who visit hospital periodically for getting treatment. All the subjects of the study were approached personally. After establishing the

working rapport with the subject, they were briefed about the purpose of collecting information on behaviour pattern, coping style, psychological disturbance etc.

In order to orient the respondents following instructions were given:

“You will be given a set of questionnaires to elicit information on personal data, general mental health and behavior pattern. The detailed instructions concerning each questionnaire are on the top of the first page of the questionnaire. Please read them carefully as they relate to you”. After giving these general instructions, questionnaires were administered one by one. It was ensured that each subject had responded to all and each of the items. Data of all the subjects were subjected to statistical analysis using SPSS software for doing ‘t’ tests.

RESULTS AND DISCUSSION

Insert Table 1 about here

Differences between Diabetic and Non-Diabetic Patients in relation to Psychiatric Disturbances.

The comparison between Diabetic and Non-Diabetic patients on psychiatric disturbances in Table 1 shows that people with Diabetes is found to have significantly more disturbances than the Non-Diabetic Patients who are suffering from other physical illnesses. This may be due to the more psycho-somatic nature of this chronic illness. (Mean Difference [MD] =1.42 , $t^2=21.52$;

$p < 0.01$, significant at 0.01 level) The Diabetes perhaps acts as a cause for psychological disturbance or vice versa.

Insert Table 2 about here

Differences between Diabetic and Non-Diabetic Patients in relation to Type A personality.

Diabetic patients had also been found to be significantly high on the Type A Personality Pattern. (MD= 2.67; $t = 23.27$; $p < 0.01$). Friedman and Rosenman (1974) characterized that the person with Type A Personality is more aggressively involved in a chronic and incessant struggle to achieve more and more in less and less time and is obsessed with task at hand and hates leisure time than the Type B personality. The Diabetic patients appears to be having a Restless Life Style – Urgency,

Insert Table 3 about here

Differences between Diabetic and Non-Diabetic Patients in relation to Cognitive Emotion Regulation Strategies.

The results in Table 3 shows that the Diabetic patients are found to be significantly lower in the following adoptive strategies such as Acceptance(MD=1.07; $t = 21.39$; $p < 0.01$), Positive Refocusing(MD= 0.67; $t = 6.94$; $p < 0.01$), and Positive Reappraisal (MD= 1.26; $t = 36.41$;

$p < 0.01$)and also they are significantly higher in Self-Blame (MD= 1.47; $t = 31.47$; $p < 0.01$), Rumination (MD= 1.66; $t = 78.63$; $p < 0.01$), and Catastrophizing (MD= 1.83; $t = 66.20$; $p < 0.01$) which are non-adoptive strategies. Even though all people encounter challenging and negative events in their lives, not all react in the same way. Some take life threatening situation in an easy way, whereas Diabetics exaggerate even a normal daily hassle as a survival problem. It is because of the coping strategies they adopt.

Discussion

The difference between Diabetic and Non-Diabetic patients showed that the psychological problems should be assessed and managed at the earliest stages for the Diabetic patients so that the problem can be mitigated at the psychological level. While rendering health care facilities to the Diabetics, the health-care team has to include professionals, who can offer a wide range of services, which address the psycho-social needs of Diabetics. Since the Diabetic patients also seem to suffer from some form of psychiatric disturbances, clinical attention is needed specifically to minimize the risk factors.

A variety of psychological and educational interventions have been shown to have a sizable enhancement in psychological adjustment to Diabetes. Implementing appropriate integrated intervention strategies such as extending psychological support and reinforcement, building cognitive emotion regulation coping skills and family counseling therapy among Diabetes would enhance self-care and glycemic control significantly. Such intervention increases patient's participation in health care decision making noticeable, which in turn help equip their

coping skills for managing the health effectively by keeping the Diabetic complications under control.

Building up such coping skills further would help resolve various adjustment problems which arise soon after the diagnostic of Diabetes and able the patients to face its complications boldly and those who do not build up are at high risk for poor adaptation to Diabetic complications, poor glycemic control and continued to have psycho social difficulties. It is desirable that Diabetes and their family members should be screened regularly for adjustment disorders and appropriate preventive psychological interventions should be incorporated periodically during the period of treatment as standard care.

Rendering periodic counseling to equip the functional coping skills such problem focused coping skills such as Acceptance, Positive Refocusing, and Positive Reappraisal etc. might facilitate to remove the causes of stress. A variety of resources can be used to cope with stress, viz, positive beliefs, social skills, social support and finally material resources. As Diabetes and psychiatric disorders are positively related to each other, these two factors may collectively worsen the health condition adversely than individual problems. Psycho-educational programmes for increasing their coping skills, particularly positive beliefs, and social skills, social support etc. may yield desirable results. It is important that the causative factors must be eliminated in all possible ways, if not so, equipping functional coping strategies to some extent among Diabetics will help overcome such adverse illness leading to a healthy and productive life. A biosociopsychological approach to combat Diabetes and other psychiatric illness can leverage in getting out of the adverse health complications. Approaches that increase patient participation in

decision making regarding health care and education have been shown to be more effective than a do or die approach in enhancing psychological adjustment to Diabetes. Specific psychological issues identified must be addressed using psychosocial services available Diabetes healthcare teams or more generally in the community.

As results showed that Diabetic patients tend to have more psychiatric disturbance than the Non-Diabetic Patients, they ought to have a significant change in the life style pattern in order for the patients to adjust to the diseases and to minimize health complications. These are the chronic disorders that require daily monitoring and relatively strict compliance to both medical and life style regimen. Periodic counseling can be rendered to adapt the functional coping strategies such as acceptance, positive refocusing, refocus on planning, positive reappraisal and putting into right perspective to face demands of life and keep their self esteem at higher level. If Diabetic patients adopt non-functional strategies such as self-blame, rumination, catastrophizing, and blaming others which may subsequently affect their metabolic control and they may feel threatened by the severity of the Diabetic complications as it produces a feeling of failure to meet the demands of coping with illness and day-to-day chores.

TABLE 1: PSYCHIATRIC DISTURBANCES OF DIABETICS AND NON-DIABETICS PATIENTS

PSYCHIATRIC DISTURBANCES	N	MEAN (SD)	MEAN DIFFERENCE (MD)	't' VALUE
DIABETIC	30	13.93 (2.30)	1.42	21.52*
NON- DIABETIC	30	12.51 (2.75)		

*p < 0. 05

TABLE 2: TYPE A PERSONALITY OF DIABETIC AND NON-DIABETIC PATIENTS.

TYPE A PERSONALITY	N	MEAN (SD)	MEAN DIFFERENCE (MD)	't' VALUE
DIABETIC	30	14.87 (1.43)	2.67	23.27*
NON- DIABETIC	30	12.10 (2.79)		

*p < 0. 05

TABLE 3: COGNITIVE EMOTION REGULATION STRATEGIES OF DIABETIC AND NON-DIABETIC PATIENTS

COGNITIVE EMOTION REGULATION STRATEGIES	DIABETIC	NON-DIABETIC	MEAN DIFFERENCE (MD)	't' VALUE
	MEAN (SD)	MEAN (SD)		
ACCEPTANCE	1.80 (0.80)	2.87 (0.97)	1.07	21.39*
POSITIVE REFOCUSING	1.83 (0.99)	2.50 (0.79)	0.67	6.94*
REFOCUS ON PLANNING	3.00 (0.91)	3.30 (0.65)	0.30	2.15
POSITIVE REAPPRAISAL	1.77 (0.90)	3.03 (0.72)	1.26	36.41*
PUTTING INTO PERSPECTIVE	3.13 (0.78)	2.90 (0.92)	0.23	1.12
SELF-BLAME	2.67 (0.99)	1.20 (1.03)	1.47	31.47*
RUMINATION	3.23(0.68)	1.57 (0.77)	1.66	78.63*
CATASTROPHIZING	3.00(0.74)	1.17 (0.99)	1.83	66.20*
BLAMING OTHERS	1.77(0.77)	3.27 (0.64)	1.50	66.96*

*p < 0.05

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