

STRESS AND ADJUSTMENT IN DIABETES MELLITUS

SABIHA PARVEEN & S.B. SINGH

ABSTRACT

Stress and adjustment in diabetics is studied in order to know the influence of maladjustment and stress in the causation of the disease. The sample of study consists of 100 diabetics patients, 100 nonpsychosomatic and 100 normal person. Results obtained are discussed in detail. It is concluded that maladjustment and stress are important contributing factors in diabetes mellitus.

Key Words: Stress, diabetes mellitus, PSLES

According to the study of Meninger (1935) & Dunbar et al. (1936) diabetes is in part a psychosomatic disease caused by emotional stress. Cannon et al. (1911) showed that glycosuria was part of the so-called "stress reaction" and could be induced by fright or rage. Skenazy and Bigler (1985) suggested that the key variable affecting the psychological adjustment of diabetics is not the diabetes itself but the aspect of having a chronic disease. Rahe & Mayer (1964) reported that both physical & mental illness onset seem to follow closely on the experiencing of events requiring than usual life readjustments as measured by the Schedule of Recent Event (SRE). According to the study of Surridge et al. (1984) results show that their symptoms often made the subjects live uncomfortably, reduced their functional capacity, disrupted their family life and disturbed the adolescence who were affected at an early age. Taken the above factors into consideration it was decided to study the diabetic patients with reference to stress and adjustment.

MATERIAL AND METHOD

Sample consists of 300 subjects(100 diabetic, 100 nonpsychosomatic and 100 normal).

All the groups are matched according to age, sex, education and duration of disease. All the subjects were administered Persumptive Life Event Scale and Adjustment inventory for adjustment. The data obtained is statistically analysed with the help of appropriate statistical tools, like analysis of variance, chi-square test and t test, stress has been studied only of past one year.

RESULTS AND DISCUSSION

Stress of past one year

From the table 1 it is observed that F. value is highly significant at 0.001 level of significance.

Diabetic and nonpsychosomatic have scored higher than the normal group nonpsychosomatic has scored lower than the diabetic group. It means life events stress of past one year play an important role in the cases of diabetics.

From the above findings obtained on life event scale, it is evident that stress is a very important factor in the etiology of diabetic patients. The present work is in agreement with study conducted by Hanson et al. (1986). Findings suggested that minor stresses can influence health outcome but positive and negative

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TABLE 1
SIGNIFICANT OF THE DIFFERENCES OF THE MEANS

Groups	Means	Comparison
Diabetes	245.49	Diabetes-Nospsy. Som*
Nonpsycho-somatic	226.73	Diabetes Normal*
Normal	188.48	Nonpsy. Som-normal*

*p<0.05
F=25.8092, d.f.=2,297, p<.001

TABLE 2
MEANS AND SIGNIFICANT OF THE DIFFERENCES OF THE MEANS

Groups	Means	Comparison
Diabetes	16.38	Diabetes-Nospsy. Som*
Nonpsycho-somatic	11.09	Diabetes Normal*
Normal	9.48	Nonpsy. Som-normal*

p<0.05, F=47.4483, d.f.=2,297, p<0.001

TABLE 3
MEANS AND SIGNIFICANT OF THE DIFFERENCES OF THE MEANS

Groups	Means	Comparison
Diabetes	15.66	Diabetes-Nospsy. Som*
Nonpsycho-somatic	15.77	Diabetes Normal*
Normal	8.65	Nonpsy. Som-normal*

*p<0.05, F=75.4233, d.f.=2,297 p<0.001

TABLE 4
MEANS AND SIGNIFICANT OF THE DIFFERENCES OF THE MEANS

Groups	Means	Comparison
Diabetes	19.27	Diabetes-Nospsy. Som
Nonpsycho-somatic	18.32	Diabetes Normal
Normal	10.48	Nonpsy. Som-normal

*p<0.05, F=85.3896, d.f.=2,297, p<0.001

stress need to be assessed independently. Bernhard (1970) noted a case of diabetes mellitus that developed under the severely stressful condition of bombardment of city. Garrod (1912) found that such emotional glycosuria was related to stress induced hyperventilation with resultant acapnia. Folieno et al. (1914) noted psychic strain on stress as a contributing factor. Mirsky (1948) reports that diabetics represented a failure of the patient to adapt physiologically and psychologically to environment stresses. Robinson & Fuller (1985). Schwartz et al. (1986) have shown that higher levels of stressful events are reported among newly diagnosed diabetics Vs. nondiabetics control, among poorly vs. well controlled diabetics patients.

On the basis of present findings and supporting studies it can be concluded that there is important role of stress in the etiology and retention of the diabetic diseases and diabetic patients can be helped by psychological measures by removing their stress.

Adjustment home

The adjustment of all subjects is measured by the adjustment inventory (Haug H. Bell)

The findings are described and discussed below :

From table 2 it is observed that F. value is highly significant at 0.001 level of significance. Diabetic and nonpsychosomatic have scored higher than the normal groups and nonpsychosomatic has scored lower than the diabetic group. It means diabetic patients are unsatisfactorily adjusted to their home surroundings.

It suggests that maladjustment in the home may keep the men disturbed and tense through out the day leading to lot of psychological disturbances manifesting in somatic changes.

Adjustment health

From table 3 it is observed that F. value is highly significant at 0.001 level of

TABLE 5
MEANS AND SIGNIFICANT OF THE DIFFERENCES OF THE MEANS

Groups	Means	Comparison
Diabetes	19.34	Diabetes-Nospsy. Som*
Nonpsychosomatic	16.33	Diabetes Normal*
Normal	10.70	Nonpsy. Som-normal*

* $p < 0.05$, $F = 58.5098$, $d.f. = 2, 297$, $p < 0.001$

TABLE 6
MEANS AND SIGNIFICANT OF THE DIFFERENCES OF THE MEANS

Groups	Means	Comparison
Diabetes	6.97	Diabetes-Nospsy. Som
Nonpsychosomatic	6.82	Diabetes Normal*
Normal	9.88	Nonpsy. Som-normal*

* $p < 0.05$, $F = 22.3390$, $d.f. = 2, 297$, $p < 0.001$

TABLE 7
MEANS AND SIGNIFICANT OF THE DIFFERENCES OF THE MEANS

Groups	Means	Comparison
Diabetes	77.62	Diabetes-Nospsy. Som*
Nonpsychosomatic	68.33	Diabetes Normal*
Normal	49.19	Nonpsy. Som-normal*

* $p < 0.05$, $F = 11.0538$, $d.f. = 2, 297$, $p < 0.001$

significance.

Diabetic and nonpsychosomatic have scored higher than the normal group and nonpsychosomatic has scored higher than the diabetic group.

Thus, it suggests that the diabetic and nonpsychosomatic patients are unsatisfactory in health and adjustment.

It is indicative of the fact that disease itself creates health maladjustment.

Adjustment social

From table 4, it is observed that F.value

is highly significant at 0.001 level of significance. Diabetic and nonpsychosomatic have scored higher than the normal group and nonpsychosomatic has scored lower than the diabetic group. Thus, it suggests that the diabetic patients are submissive and retiring in their social contacts.

This also suggests, like other factors, social maladjustment of diabetic patients.

Adjustment emotional

From table 5 it is observed that F. value is highly significant at 0.001 level of significance. Diabetic and nonpsychosomatic have scored higher than the normal group and nonpsychosomatic has scored lower than the diabetic group. It means diabetic patients are emotionally unstable.

Adjustment occupational

From table 6 it is observed that F.value is highly significant at 0.001 level of significance. Thus, it suggests that the diabetic patients having low scores tend to be well pleased with their present job. It reveals that occupation has no important role to play in diabetic patients.

Adjustment Total adjustment

From table 7 it is observed that F. value is highly significant at 0.001 level of significance. It is clear from the above data that diabetes group is significantly maladjusted as a whole.

Above description of the findings of adjustment scale clearly suggest that diabetic patients are not adjusted with reference to home, society and emotion. There are number of studies supporting the above finding-Mayou (1990) found that most subjects with IDDM reported at least some disruption of their work of social life related to their diabetes, although this disruption tended not to be severe. Swift et al. (1967) noted increased anxiety, less adequate self image, and more disturbed and dependent. Ryan et al. (1986) found differences in coping strategies of diabetic and non diabetic. Mc Gavin et al. (1940) evaluated 49 diabetic children and controls, noting increased maladjustment in a

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substantial number of the diabetics. Hauser et al. (1985) found that family orientations toward independence, participation in social/recreational activities and organization were strongly associated with diabetic subjects. Above findings & supporting studies clearly reveal that diabetic patients are maladjusted and under stress.

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