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Burnout and Coping Strategies in Patients with Diabetes and Hypertension

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Abstract:

With change in lifestyle the risk for occurrence of diseases are increasing every day and out of which diabetes and hypertension are most common ones and is increasing in epidemic proportion. Recognition of diabetes and hypertension is one of the most challenging works to manage as it not only led to behavioural but also psychological issues. Among patient with diabetes and hypertension burnout is a distressing and pervasive complaint although it also occurs in other medical disorders but the importance of understanding burnout in these patients is greater. Also, burnout indicates not appropriate use of coping strategies by the individuals. The main purpose of this study was to assess the level of burnout and use of coping strategies in patients with diabetes and hypertension. The research was investigated using quantitative approach with a sample of 70 participants, who were taken from different private clinics and surroundings. Pearson Correlation and t-test were used to analyse the data. The empirical results showed that there is a significant relationship between Burnout and Coping strategies. Burnout

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variables show relation with emotion focused engagement. On the other hand, statistically a significant difference is found for burnout in patients with diabetes and hypertension. Also, there is significant difference in coping stratergies in patients with diabetes and hypertension for emotion focused engagement.

Key words: Diabetes, Hypertension, Burnout, Coping strategies.

INTRODUCTION

Changing lifestyle today is the major issue for problems. One of reason is due to reduction in physical activity and endurance of people. Due to which most prevalent is diabetes and hypertension. To be diagnosed with these can be challenging for the person. It gives emotional as well as physical stress to people. The life's journey seems as helpless and more like sufferer to them. Also, among patient with diabetes and hypertension burnout is a distressing and pervasive complaint although it also occurs in other medical disorders but the importance of understanding burnout in these patients is greater. Which can further have led to maladaptive use of coping strategies.

Diabetes is also known as diabetes mellitus, is a metabolic disease in which sufferer has high blood glucose or blood sugar, either because insulin production is in inadequate or body's cell do not respond properly to insulin, or both. Patients with high blood sugar will typically experience polyuria (frequent urination), they will become increasingly thirsty (polydipsia) and hungry (polyphagia) (Kaveeshwar & Cornwall, 2014). Diabetes is fast gaining the status of a potential epidemic in India with more than 62 million diabetic individuals currently diagnosed with the disease (Joshi & Parikh 2007; Kumar et al., 2013). In 2000, India (31.7 million) topped the world with the highest number of people with diabetes mellitus followed by China (20.8 million) with the

United States (17.7 million) in second and third place respectively. According to Wild et al. (2014) the prevalence of diabetes is predicted to double globally from 171 million in 2000 to 366 million in 2030 with a maximum increase in India. It is predicted that by 2030 diabetes mellitus may afflict up to 79.4 million individuals in India, while China (42.3 million) and the United States (30.3 million) will also see significant increases in those affected by the disease (Whiting, 2011) India currently faces an uncertain future in relation to the potential burden that diabetes may impose upon the country (Wild, 2003).

High blood pressure (BP) is ranked as the third most important risk factor for attributable burden of disease in south Asia (Lim, 2010). Hypertension (HTN) exerts a substantial public health burden on cardiovascular health status and healthcare systems in India (Leeder, 2004; Reddy 2005). HTN is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease (CHD) deaths in India (Gupta, 2004). The WHO rates HTN as one of the most important causes of premature death worldwide [Mackay & Mensah, 2004). In an analysis of worldwide data for the global burden of HTN, 20.6% of Indian men and 20.9% of Indian women were suffering from HTN. The rates for HTN in percentage are projected to go up to 22.9 and 23.6 for Indian men and women, respectively by 2025 (Kearney, 2005). Recent studies from India have shown the prevalence of HTN to be 25% in urban and 10% in rural people in India (Thankappan et al., 2006; Das, Sanyal, & Basu 2005). The prevalence of raised BP in Indians was 32.5% (33.2% in men and 31.7% in women). However, only about 25.6% of treated patients had their BP under control, in a multicenter study from India on awareness, treatment, and adequacy of control of HTN (Kumar et al., 2013).

Diabetes burnout in other words is emotional distress in diabetic patients. Burnout happens when patient feel exhausted by diabetes and by the frustrating burden of diabetes self-care. People who have overwhelmed realize that good

diabetes care is important for their health, but don't have motivation to do it. Research evidence has showed that burnout is caused due fatigue or lack of energy and it left patient with feeling that diabetes has taken up too much of their mental and physical energy every day (Anchala & Kannuri, 2014). Burnout is associated with fatigue at daily functioning, when patient with diabetes do not get positive outcomes from their efforts at diabetes self-care, or when they face negative outcome, they experience lack of personal accomplishment so with no positive change patient experience emotional fatigue and cynicism which further cause physiologic fatigue and giving psychological aspect to it. Fatigue also results in psychological factors such as depression or emotional distress associated to the diagnosis. Fatigue in diabetes is due to lifestyle issues as lack of physical activity or gain in weight commonly in type 2 diabetes. Burnout symptoms in diabetic patient include fatigue, sleepiness, tiredness, lack of energy and exhaustion. Fatigue in diabetes is acknowledged to be complex and serious problem encompassing physiological, psychological and situational component such as life or work events. With the evidence of various review of literature definition to fatigue varies among causes, indicators and effects. It is being defined as either subjective symptom or objective decrease in energy (Thankappan et al., 2006).

Folkman & Lazarus (1980) have described coping as cognitive and behavioral efforts to master, reduce or tolerate the internal and/or external demands that are created by the stressful transaction. Thus, coping refers to the efforts directed to manage demands regardless or the success of those effects. Coping is used in this formulation as having two major functions: (a) the regulation of emotions of distress (emotion focused coping) and (b) the management of the problem which is causing the distress (problem focused coping). It is also observed that both forms of coping are used in most stressful

encounters and that relative proportion of each vary according to how the encounter is appraised (appraisal-focused coping).

Burnout in Patients with Diabetes: Chasens et al. (2008) studied type 2 diabetes patients to identify and rank the severity of problems associated with being sleepy. Daytime sleepiness was associated with a general decrease in motivation to engage in activities that are important to the management of diabetes. Because decreased motivation may have a negative influence on psychological well-being, it is important that health care providers assess not only for how well their patients' diabetes is being controlled, but also for sleep disturbances and the patients' general state of psychological well-being. In another study on 597 diabetes subjects, it was found that prevalence and incidence of depression in cases of diabetes were 15.4% and 16.5% respectively. The effect on the incidence of depression suggests that diabetes may play a role in the development of depression in the elderly. The presence of co morbid medical diseases seems to decrease the effects of diabetes on the risk of prevalent depression, but to increase the risk of incident depression (de Jonge et al., 2006).

Coping Strategies in Patients with Diabetes: Overall scores for depression, fatalism and helplessness approaches were significantly higher among females compared with male patients. Depression scores were correlated positively to duration of disease ($r=0.190$, $p=0.047$), fatalistic ($r=0.247$, $p=0.009$), helplessness ($r=0.543$, $p=0.000$) and avoidance ($r=0.261$, $p=0.006$) approaches, and negatively to educational status ($r=-0.311$, $p=0.001$) and problem solving-optimistic approach ($r=-0.381$, $p=0.000$). The likelihood of depression among diabetic patients was associated with gender, educational status, duration of diabetes, coping strategies, compliance with diet and exercise, but not with the current metabolic control and compliance with pharmacological treatment (Parildar et al., 2015).

Burnout and Coping Strategies in Patients with Hypertension: Pervichko et al. (2013) studied the emotional burnout syndrome (EBS), define its intensity and quality characteristics in patients with Hypertension (HTN) at work; to study the role of such a personal factor as perfectionism and psychological defense mechanisms in development of EBS in HTN patients. All examined HTN patients demonstrated a low self-esteem in terms of personal accomplishment. Patients with HTN at Work distinguish from patients with Essential HTN by more intense EBS factors, such as emotional exhaustion and depersonalization. The results illustrated that HTN patients and patients with HTN at Work in particular distinguish by high intensity of socially prescribed perfectionism and representation of defense mechanisms including displacement, denial, projection and reaction formation. The correlation analysis showed positive significant correlations between these factors and intensity of emotional exhaustion and depersonalization within EBS.

Burnout and Coping Strategies: Zeynep & Birsen 2012 noted that direct and palliative coping styles may play an important role in burnout. A direct coping style is described as problem-solving behaviour through rational and task-oriented strategies, whereas a palliative coping style is described as dealing with emotional distress through strategies such as ignoring the situation. A direct coping style has been found to have lower levels of burnout; those who report using a palliative coping style have higher levels of burnout. Moreover, the use of a direct coping style has been associated with downward identification and with increased burnout over time. Coping strategies such as avoidance and distancing strategies were found to be associated with higher level of stress, emotional exhaustion, and depersonalization.

METHOD

The study was a correlational study. The respondents were chosen on the premise of taking after criteria of omission and inclusion. The study included 35 patients with diabetes and 35 patients with hypertension with a total of 70 participants (n=70).The participants by occupation were both working and housekeepers. All the participants were from upper-middle class family. Majorly all the respondents had good communication skills. The data was collected from the various hospitals and clinics.

The main aim of the study was to assess the relationship between the level of burnout and coping strategies in patients with diabetes and hypertension.

HYPOTHESES:

H_1There will be a significant relationship between burnout and coping strategies in patients with diabetes and hypertension.
H_2There will be a significant difference between level of burnout in patients with diabetes and hypertension.
H_3There will be significant difference between using coping strategies in patients with diabetes and hypertension.

Pearson's Correlation and t-test was used for data analysis and hypotheses testing.

Following standardized tests / tools were used for the collection of data:
1. *The Maslach Burnout Inventory (MBI) (Christina Maslach, Susan E. Jackson, & Richard L. Schwab; 1986*) [16] is the most commonly used questionnaire to measure burnout in research studies. The MBI human services survey is a self-administered, 22-item questionnaire that was developed to measure burnout in human services workers and is regarded to be the "gold

standard" in measuring burnout.The MBI items are rated on a Likert scale and score sample items is designed to assess the 3 primary dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment.

2. *Coping strategies inventory: The CSI (Tobin, Holroyd, Reynolds, &Wigal, 1985*) [17] is designed to assess coping thoughts and behaviour in response to a specific stressor. It is self-administered, 32- item questionnaire that was developed to measure coping strategies used by administrator. It is likert scale and Chornbach's alpha has been frequently reported coefficient of reliability ranges from 0.71 to 0.94. and test retest Pearson correlation ranges from0.39 to 0.61. both alpha coefficient and test retest value assess scale is reliable. The validity of scale is computed at various level at factorial structure, criterion validity and construct validity and it was examined that the result has good validity also.

RESULTS

The present study assesses the level of burnout and coping strategies in patients with diabetes and hypertension. The study included seventy participants (n=70) belonging to upper-middle class strata. To understand the findings of the data collected, analysis was made using the statistical approach; mean, standard deviation, t- test and Pearson correlation coefficient to assess the results and find relationship between the two components. Description of the results are mentioned below:

Inter correlation matrix was calculated between coping strategies and burnout for patients with diabetes which shows that emotion focused engagement (EFD) has positive significant correlation (0.343) with exhaustion(burnout) and has negative significant correlation with personal achievement (burnout) (-0.43) $p<0.05$. Exhaustion(Exh) (burnout) showed positive significant correlation with depersonalisation (Dep) (burnout)

(0.771) and negative significant correlation with personal achievement (burnout) (-0.447) p<0.01. Results examined also show that depersonalisation (burnout) is negatively correlated with personal achievement (PersAch) (-0.52) p<0.01.

Table 1 Inter correlations among coping strategies and burnout of patients with diabetes

Variable	1	2	3	4	5	6	7
PFE(1)	-	-	-	-	-	-	-
EFE(2)	-.163	-	-	-	-	-	-
PFD(3)	.079	-.156	-	-	-	-	-
EFD(4)	-.260	.027	.325	-	-	-	-
Exh(5)	-.275	**.343***	-.313	-.047	-	-	-
Dep(6)	-.321	.309	-.112	.088	**.771****	-	-
PersAch(7)	.084	**-.430***	-.121	-.123	**-.447****	**-.529****	-

**p< 0.01, *p<0.05

Table 2 Inter correlation matrix between coping strategies and burnout of patients with hypertension

Variable	1	2	3	4	5	6	7
PFE(1)	-	-	-	-	-	-	-
EFE(2)	-.098	-	-	-	-	-	-
PFD(3)	-.099	-.054	-	-	-	-	-
EFD(4)	-.069	.071	-.131	-	-	-	-
Exh(5)	.199	.129	.106	-.073	-	-	-
Dep(6)	.256	-.071	-.053	.014	**.753****	-	-
PersAch(7)	.160	.217	-.69	.238	.053	.277	-

**p< 0.01, *p<0.05

From the analysis it is examined that for correlation among burnout and coping strategies of patients with hypertension results showed that exhaustion (burnout) have positive significant correlation with depersonalization (burnout) (0.753) p<0.01.

Table 3 Comparison between patient of hypertension and diabetes on dimensions of burnout

	Diabetes (N=35)		Hypertension (N=35)		
Burnout Dimensions	**Mean**	**SD**	**Mean**	**SD**	**t-values**
Exhaustion	21.97	8.39	11.94	6.80	**5.491****
depersonalisation	20.54	8.73	11.91	7.10	**4.535****
Personal achievement	23.17	10.35	31.42	11.10	**3.217****

**significant at 0.01 level

Table 3 showed mean scores on exhaustion for diabetes and hypertension as 21.97 (SD=8.39) and11.94 (SD=6.80) respectively, on depersonalization for diabetes and hypertension scored obtained were 20.54 (SD=8.73) and 1191 (SD=7.10) respectively and on personal achievement mean scored calculated for diabetes and hypertension were 23.17 (SD=10.35) and 31.42 (SD= 11.10) respectively and The value of t-scores for all the variables exhaustion (5.491), depersonalization (4.535) and personal achievement (3.217) came out to be significant $p<0.01$.

Table 4 Comparison difference between patient of diabetes and hypertension on dimensions of coping strategies

	Diabetes (N=35)		Hypertension (N=35)		
Coping Strategies dimensions	**Mean**	**SD**	**Mean**	**SD**	**t-value**
Problem focused engagement	30.48	6.074	31.82	3.39	1.141
Emotion focused engagement	26.25	3.822	25.68	4.20	0.595
Problem focused disengagement	21.14	3.95	20.74	2.41	0.510
Emotion focused disengagement	20.02	4.52	16.65	4.37	**3.169****

**significant at 0.01 level

From the table 4 difference between mean, standard deviation and t- scores were examined between patients of diabetes and hypertension which can observed on dimensions of coping strategies, showed results of mean scores for problem focused engagement and for diabetes and hypertension as 30.48 (SD=6.07) and 31.82 (SD=3.39) respectively and for emotion focused engagement for the same as 26.25 (SD=3.82) and 25.68 (SD=4.20) respectively.

Similarly mean scored observed on problem focused disengagement for diabetes and hypertension was 21.14 (SD=3.95) and 20.74 (SD=2.41) and on emotion focused disengagement for the same mean scores observed were 20.02 (SD=4.52) and 16.65 (SD=4.37) respectively. The value of t-scores observed was significant for emotion focused disengagement (3.169) $p<0.01$.

DISCUSSION

The idea for the study was to understand the impact of diabetes and hypertension on the daily functioning of individual. To comprehend the impact, different variables can be utilized yet for the present study variables utilized are level of burnout and adapting strategies. Burnout is seen with measurement of expansion in anxiety and weariness in patients and adapting strategies are the ways patients use to manage the circumstance.

With change in lifestyle the occurrence propensity of diseases is increasing every day and out of which diabetes and hypertension are most common ones and is increasing in epidemic ratio. Recognition of diabetes and hypertension as one of the most challenging chronic illness led to not only behavioural and but psychological issues. Among patient with diabetes and hypertension burnout is a distressing and pervasive complaint although it also occurs in other medical

disorders but the importance of understanding burnout in these patients is greater.

Subsequently, the present investigation purports to understand significant differences in reaction to various components, viz-a-viz, Burnout(exhaustion, depersonalization and personal achievement) and coping strategies (problem focused engagement, emotion focused engagement, problem focused disengagement and emotion focused disengagement). The study examined the level of burnout and use coping strategies in patients with diabetes and hypertension. In addition to the level of these components their correlation was studied, i.e., relationship between burnout and coping strategies in diabetes and then in hypertension. The sample consisted of 35 each diabetes and hypertension patients.

The statistical analysis of burnout variable of exhaustion in patients with diabetes and hypertension resulted in significant level of difference, wherein, mean for exhaustion for diabetes (mean=21.97 and SD=8.39) was higher than that of hypertension (mean=11.94 and SD=6.80). It implies that patients with diabetes have a higher level of exhaustion than patients with hypertension similar results are seen for depersonalization (burnout) where t-value showed significant difference wherein mean of diabetes 20.54 (SD=8.37) was greater than mean of hypertension 11.91 (SD= 7.48) which can be seen as diabetes show greater depersonalisation (burnout). When examined personal achievement results show mean of hypertension is greater than diabetes i.e 31.42(SD=11.10) and 23.17(SD=10.35) respectively. The scores t-value showed significant difference. As according to Maslach (1981) it was defined that to have burnout there should be greater scores for exhaustion and depersonalisation and lesser scores in personal achievement; with respect to present study the results of patients with diabetes show more burnout level than in patients of hypertension, though differences in mean scores is not too much but it can be seen that diabetes creates more

burnout in sufferer. The possible reasons could be given by some studies that hypertension have high chance that it occurs with diabetes along with obesity which is seen worldwide which worsen its condition (Colosia, Palencia, & Khan, 2013). Risk of raising complication in diabetes due to additively having hyperglycaemia and hypertension (Stratton 2006). These studies show diabetes have co morbidity with various other medical illness which could increase it risk factors and lead to burnout in patient as given that decrease in intrinsic energy leads to emotional exhaustion, physical fatigue and cognitive weariness (Shirom,1989). From above results hypotheses (b) is accepted that there is significant difference between level of burnout in patients with diabetes and hypertension.

When t-value for coping strategies scale among problem focused engagement, emotion focused engagement, problem focused disengagement and emotion focused disengagement were examined only scores for emotional focused disengagement show significant level of difference which resulted as mean calculated of diabetes i.e. 20.02 (SD=4.52) is greater than 16.65 (SD=4.37) mean value of the hypertension, which shows higher emotion focused disengagement in diabetes than hypertension. As it is seen that emotion focused disengagement comprises of self-criticism and social withdrawal so these factors are high in diabetes. The possible reason could be that with diabetes there is presence of depressive symptoms (Parildar et.al, 2015). Another study to the results shows emotional stress plays role in causing type 2 diabetes mellitus, due to which individual is at risk of development of depression also this study results suggest that depression with emotional stress, sleep disturbances, anxiety issues, anger and hostility are responsible for risk of type2 diabetes (Pouwer et.al 2010). From the results hypotheses (c) is accepted that there is significant difference between use of coping strategies in patients with diabetes and hypertension

and significant difference is found in emotional focused disengagement which is higher in diabetes.

To assess relationship between burnout and coping strategies in patients with diabetes and hypertension inter correlation matrix was used results shows that exhaustion (burnout) share positive significant relation with emotion focused engagement (0.34) and also emotion focused engagement has negative significant correlation with personal achievement (burnout) (-0.43) $p<0.05$.Exhaustion (burnout) showed positive significant correlation with depersonalisation (0.77) and negative significant correlation with personal achievement (burnout) (-0.447) $p<0.001$ Also depersonalisation (burnout) is negatively correlated with personal achievement (-0.52) $p<0.01$ and when inter correlation between burnout and coping strategies for hypertension found that exhaustion (burnout) have positive significant correlation with depersonalization (burnout) (0.753) $p<0.01$ the possible reason could be experts who experience burnout can't viably adapt to push and at the same time can't dispose of or keep away from anxiety. The people who experience drawn out and persistent presentation to stressors and absence of sufficient adapting systems may succumb to a condition of physical, enthusiastic and mental fatigue, known as burnout (Kumar et a., 2013); another study says the high rate of burnout in a variety of professions has been associated with disengage coping strategies, such as getting away from people (Maslach 1982). These results show that a hypothesis (a) is accepted that there will be significant relationship between burnout and coping strategies for diabetes and hypertension.

CONCLUSION

The current study aimed to assess the level of burnout and use coping strategies in patient with diabetes and hypertension. The findings of the study were suggestive of the following

results are first, the study implicated that, firstly, diabetes have a higher level of exhaustion than of hypertension. Secondly, diabetes has a high aptitude for depersonalization, from hypertension. Thirdly, hypertension has a marginally high personal achievement than diabetes. Forth, patient with hypertension with have higher emotional focused disengagement than patients with diabetes. Finally, as per the findings, there was a significant correlation between burnout and coping strategies (p=0.01).

FURTHER SUGGESTIONS:

Qualitative study could be done such as interviews. Relationship between burnout and coping strategies could be done. This study could be done on other professions such as health experts, doctors for the burnout and coping strategies for the success on their profession. One may extend the work to residents of other states as the present study was limited to the residents of Delhi only. Some more variable can be added to gain an in depth knowledge of the topic. This research can be extended to an early age group to discover a continuous pattern of different variables.

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