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Original Article

Effect of Social Intolerance on Psychological Distress in Cardiac Patients

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Abstract

Background: The patients with diverse cardiac issues and physical illness experience different levels of social intolerance, depression, anxiety and stress.
Objectives: To explore the relationship between social intolerance and psychological distress among cardiac patients and investigate the effect of different type of cardiac illness, its duration and physical symptoms on social intolerance and psychological distress.
Study design, settings and duration: Cross-sectional study, conducted at Benazir Bhutto Hospital (BBH), Rawalpindi Institute of Cardiology (RIC), Hearts International Hospital (HIH) and Pakistan Institute of Medical Sciences (PIMS**)** from September-December, 2014.
Patients and Methods: The sample size of 180 adult cardiac patients was collected. These patients were selected from the cardiac units of 4 hospitals of Rawalpindi using purposive sampling. Social intolerance was assessed using Frustration Discomfort Scale (FDS), distress was assessed using depression anxiety and stress scale (DASS)
Results: Out of 180 patients, 53.3% were males and 46.7% females. Their ages ranged from 20 to 60 years. Results revealed significant discomfort intolerance, ($p < 0.01$) entitlement ($p < 0.05$) and emotional intolerance ($p < 0.01$) in these patients. There was 45% variance in depression, while discomfort intolerance ($p < 0.01$) and achievement frustration ($p < 0.01$) showed 35% variance in anxiety.
Conclusion: Cardiac patients suffer from major emotional distress.
Key words: Cardiac patients, frustration discomfort scale, depression anxiety and stress scale, depression, anxiety, stress.

Introduction

With new health crisis the recent reports have astonishingly seen an abundance of cases of cardiac patients in Pakistan.[1]

The intolerance for idealized conditions, restriction of personal desires, individual perceptions, comprehension and restrictions are labeled as social intolerance.[1-2] The inability to forget intolerant situation/traumatic events is linked to prolongation of mental health issues.[3]

The term psychological distress (e.g., depression, anxiety and stress) is a state often linked to feelings of emotional distraught, misunderstanding, stress, and hopelessness while at another place it is elaborated as distress feelings against all kind of psychological, public, emotional, and religious understandings.[4] World Health Organization (WHO) has emphasized early identification and handling of body issues, psychological issues, social issues, and religious issues in cardiac patients due to their high linkage with distress feelings.[5]

Different dimensions of social intolerance result in different levels of depression and anxiety for example lower level of discomfort intolerance experienced during therapeutic treatment was related with low level of depression and anxiety among psychological patients.[6] In educational settings, higher social intolerance was linked with poor results.[7-8] Most cardiac patients suffer from depression and anxiety issues.[9] One worker reported that 16% cardiac patients suffered from anxiety, 13% suffered from depression and 39% experienced co-morbid depression and anxiety.[9]

In developed countries coronary artery disease (CAD) is major cause of death specially in women (one in three women after age of 65).[10] The hypothetical relation between social intolerance and psychological distress (like depression, anxiety and stress) highlighted that social intolerance can further add negative feelings

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and thus lead to increased distress. Higher frequency of daily hassles and higher distress intolerance, and emotional intolerance lead to psychological distress (depression, anxiety and stress).[10] Demographic difference across gender in Pakistani culture has shown that females are higher on shame and psychological distress as compared to males and social intolerance was associated with, shame, guilt and development of internalizing and externalizing problems.[11] Other studies from Pakistan found relationship between psychological distress (depression, anxiety and stress) and perceived social support, resilience, coping strategies, parental styles, repetitive negative thought, rumination styles[12] in different population. In deaf population all studies highlighted that individuals apply different coping strategies to handle psychological distress and thus increased individual's overall emotional adjustment in different situations. Similarly different medical issues (e.g., cancer, diabetes, hypertension and tuberculosis) have different psychological responses. In some studies the life styles of cardiac patients have been assessed but none has explored the possible linkage between cardiac diseases and social intolerance which can affect the emotional state of these patients. The present study was done to explore the effect of different type of cardiac illness, duration of cardiac illness and physical symptoms on social intolerance and psychological distress.

Patients and Methods

This cross-sectional study was done on cardiac patients aged between 20-60 years who were admitted at the cardiac unit of Benazir Bhutto Hospital (BBH), Rawalpindi Institute of Cardiology (RIC), Hearts International Hospital (HIH) and Pakistan Institute of Medical Sciences (PIMS). A total of 180 cardiac patients were included in the study using non-probability purposive technique. The cardiac patients in alarming condition and admitted in ICU were not included in sample similarly the cardiac patients with other alarming conditions were not included in sample. The cardiac patients with bypass of 1 year elapse were taken as sample.

The frustration discomfort scale (FDS)[11] was used to assess the social intolerance in cardiac patients. The scale consists of 28 items comprising of 4 subscales namely discomfort intolerance, entitlement, emotional intolerance, and achievement frustration. Each scale comprises of 7 items and it is a 5 point rating ranging from 1 to 5 where 1 = *absent* and 5 = *very strongly*.[12] Depression anxiety stress scale (DASS)[12] was used to assess psychological distress (depression, anxiety and stress). This scale comprises of 3 subscales with 7 items in each subscale making a total of 21 items. The scale is a self-report inventory having 4-point rating scale (0= did not apply to me at all and 3= applied to me very much).

A pilot study was conducted on 30 cardiac patients and results showed that the selected instruments were reliable for measuring the social intolerance and psychological distress among the cardiac patients.

After taking permission for data collection from the hospital authorities the questionnaire on FDS and DASS were distributed among 180 cardiac patients. These patients were debriefed about the research objectives and how to fill the questionnaire. For illiterate patients assistance was offered by the researchers. Once filled, all questionnaires were personally collected and analyzed using SPSS-21. The regression analysis was used for exploring the predictive effect of subscales on social intolerance and on outcome variables for psychological distress among cardiac patients. For further analysis of different demographics, ANOVA was used.

This study was reviewed and approved by the institutional ethical review committee of International Islamic University, Islamabad.

Results

Multiple regression analysis showed that the subscale of discomfort intolerance ($p < 0.01$), entitlement ($p < 0.05$), and emotional intolerance ($p < 0.01$) significantly positively forecasted subscale of depression. The value of R^2 change showed that the subscales of social intolerance elucidated 45% modification in psychological distress (depression) (Table-1).

Table 1: Prediction effects of social intolerance subscales on distress (Depression). (n = 180)

	Psychological Distress (Depression)	
		Model 1
Variables	*B*	*95 % CI*
Constant	-4.31	[-8.288, -0.34]
Discomfort intolerance	.416	[0.22, 0.60]
Entitlement	.178	[0.02, 0.33]
Emotional intolerance	.223	[0.05, 0.39]
Achievement frustration	-.029	[-0.21, 0.15]
R^2	0.451	
F	29.74	

Table-2 on multiple regression analysis showed that the discomfort intolerance ($\beta = .44$, $p < .01$) and achievement frustration ($\beta = .33$, $p < .01$) significantly increased anxiety with R^2 showing level of 35% change in psychological distress (anxiety) by discomfort intolerance and achievement frustration. Other findings are highlighted in Table-2.

The predictive features of social intolerance subscales on stress are shown in Table-3. The value of R^2 change showed that the subscales of social intolerance brought up only 6% increase in psychological distress (stress).

Table 2: Prediction effects of subscales of social intolerance on anxiety. (n = 180)

	Psychological Distress (Anxiety)	
		Model 1
Variables	*B*	*95 % CI*
Constant	-4.036	[-8.115, .043]
Discomfort intolerance	.431	[.236 , .627]
Entitlement	-.080	[-.241 , .080]
Emotional intolerance	.031	[-.145 , .207]
Achievement frustration	.336	[.142 .529]
R^2	0.35	
F	19.74	

Table 3: Prediction effects of social intolerance subscales on stress. (n = 180)

	Psychological Distress (Stress)	
		Model 1
Variables	*B*	*95 % CI*
Constant	7.953	[4.00, 1.904]
Discomfort intolerance	-.085	[-.274 , .104]
Entitlement	.114	[-.041 ,.269]
Emotional intolerance	.129	[-.042 ,.300]
Achievement frustration	.098	[-.090 ,.285]
R^2	0.062	
F	2.38	

As shown in Table-4, the cardiac disease patients scored higher on discomfort intolerance, entitlement, and emotional intolerance as compared with those who had other cardiac issues. Cardiac disease patients reported higher depression, chest pain patients reported higher level of anxiety and finally the bypass patients reported higher level of stress. Eta value of ANOVA help to highlighted the effect of demographic effects on social intolerance and distress on cardiac issues. Eta value greater than 0.10 has significant effect of study variables.

No significant difference was found in mean duration of illness on discomfort intolerance, entitlement and achievement frustration. Emotional intolerance was highest among patients suffering from illness since past 4-6 years. Similarly no significant mean difference appeared on depression and anxiety against duration of illness. However, the patients of 4-6 years of illness reported higher level of stress. Eta value showed significant effect of social intolerance and psychological distress on all levels of duration of illness (Table-5).

The cardiac patients with physical symptoms of hypertension, diabetes, stomach/lungs issues reported different levels of social intolerance and psychological distress as compared to patients with other physical complaints (Table-6).

Discussion

The present study showed that that cardiac patients suffer from social intolerance leading to anxiety depression. The basic objective behind the rational emotional behavior therapy (REBT) is to alter the intolerance feelings because the required demands for unexpected situation increase their feelings of depression and anxiety.[13] The higher social intolerance for longer duration in life after the cardiac issues sometimes upsurge emotional problems leading to life disturbances.[14] The feelings of anxiousness, depression and stress for intolerant situations increase with the passage of time and with different medical conditions and severe pathological and treatment procedures thus leading to higher distress feelings.[12,15]

Our study shows that means of different cardiac issues like cardiac failure, chest pain, bypass surgery and cardiac disease yielded different responses to social intolerance, and psychological distress (Table-4). The subscales of social intolerance are higher for patients suffering from cardiac disease as compared to other cardiac issues. The cardiac patients suffer from more frustration for social situation related to life styles changes. They experience more diverse treatment methods with prolonged hospitalization.[16]

This study showed that cardiac disease patients experienced more depression as compared to other cardiac issues patients. Other researches also supported this finding that depression is a significant, self-determining risk factor involved in the onset of antagonistic development and poor outcome in patients suffering from coronary heart disease.[14,15] As most cardiac patients have alerting medical signs such as overtiredness, syncope and tremors which immediately constraints them from performing daily routine of life therefore they suffer

Table 4: Mean of cardiac issues on social intolerance and psychological distress. (n = 180)

	Cardiac Failure		*Chest Pain*		*Bypass Surgery*		*Cardiac Disease*			
	n = 66		*n = 34*		*n = 22*		*n = 28*			
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*Ƞ2*
Dis. int	23.09	5.69	23.82	5.10	22.18	5.90	24.89	4.56	1.22	.07
Entit	22.57	5.64	20.79	4.24	21.81	5.36	23.92	5.75	1.88	.15
Emo.int	22.10	4.96	22.70	5.76	21.31	6.74	23.75	4.81	.97	.10
Ach.fru	21.53	4.73	20.50	3.64	21.54	4.27	21.75	3.69	.58	.16
Dep	13.19	5.79	13.94	5.98	12.59	5.00	16.03	4.28	2.18	.11
Anxiety	11.84	5.53	13.26	5.61	10.86	4.05	12.46	4.87	1.06	.14
Stress	13.48	4.41	12.85	3.82	14.50	5.05	13.42	3.51	.67	.09

Table 5: Mean differences of social intolerance and psychological distress on cardiac illness duration. (n = 180)

	Less than 1 year		*1-3 Years*		*4-6 Years*			
	n= 66		*n= 34*		*n = 22*			
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*Ƞ2*
Discomfort intolerance	23.84	5.48	23.08	5.50	23.42	5.35	.23	.08
Entitlement	21.88	5.11	22.40	4.99	22.65	6.03	.27	.09
Emotional intolerance	21.90	5.45	22.04	5.12	23.30	5.61	1.04	.10
Achievement frustration	21.50	4.13	21.57	4.78	20.96	3.86	.31	.10
Depression	14.43	5.30	13.25	5.51	13.69	5.84	.56	.11
Anxiety	12.88	5.73	12.00	5.03	11.53	4.94	.86	.24
Stress	12.90	4.11	13.36	4.16	14.15	4.35	1.16	.12

Table 6: Mean difference on social intolerance and psychological distress against different types of physical illness. (n = 180)

	Joint pain		*Stomach/ Lungs issue*		*Diabetes*		*Hypertension*		*Hypertension with diabetes*			
	(n = 13)		*(n = 12)*		*(n = 23)*		*(n = 48)*		*(n = 34)*			
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*Ƞ2*
Dis. Int	23.09	5.69	23.82	5.10	22.18	5.90	24.89	4.56	22.73	5.25	1.86	.10
Entit	22.57	5.64	20.79	4.24	21.81	5.36	23.92	5.75	21.76	5.39	.57	.14
Emo.int	22.10	4.96	22.70	5.76	21.31	6.74	23.75	4.81	22.11	5.36	3.32	.11
Ach.fru	21.53	4.73	20.50	3.64	21.54	4.27	21.75	3.69	22.11	4.29	3.83	.18
Dep	13.19	5.79	13.94	5.98	12.59	5.00	16.03	4.28	14.73	4.92	.99	.06
Anxiety	11.84	5.53	13.26	5.61	10.86	4.05	12.46	4.87	12.64	5.53	.71	.10
Stress	13.48	4.41	12.85	3.82	14.50	5.05	13.42	3.51	12.64	4.21	.53	.12

from intolerable issues.[16] It is also reported that cardiac patients having more depressive symptoms exhibit more (60%) cardiac events within 12 months of their diagnosis of cardiac disease.[17] Similarly patients experiencing multiple lifelong treatments, those who experience recurrent pain episodes, who have higher susceptibility for heart failure; upsurge stress feelings and apprehension for major pain episode, uncertainty and anxiety.[18] The stress is more prominent in cardiac bypass patients as they experience surgery, with prolonged waiting time.[19]

As indicated in our research, there are no significant mean difference for duration of illness (Table-5). Whereas, depression, is prominent in patients in initial duration of illness (less than 1 year) as researches have highlighted that the new identification of medical issue with life restrictions, medical procedures, and economic burden due to new expenditure increase vulnerability for depressive feelings.[20] The study findings are in accordance with previous researches which showed that overall the distress increases in cardiac patients due to side effects of medication, thinking about the betterment of family, love needs, pain concerns, and concern about young children, increase the guilt feelings of patients as the patients start attributing the illness toward themselves.[20]

This study finding reveled that cardiac patients also suffered from different type of physical ailments across social intolerance. As the cardiac patients with hypertension suffered from more social intolerance, the patients of hypertension suffer from more blood pressure alteration making the physical states a vague unpredictable state and making more situations intolerable.[21] The results showed that depressive, anxiety and stress is prominent in cardiac patients as other studies also highlighted [21] that other co-morbid existing physical such as diabetes, dyslipidemia, and hypertension with elder age increase vulnerability for distress feelings in cardiac patients. Previous research findings have also supported the idea that 3.2% patients suffered from hypertension, around 8.4% patients suffered from diabetes and prolong feelings of dejection, aggravation, culpability, and fear that lead to making the patients lead to higher distress.[21]

The cardiac patients with other psychological issues should be identified and then therapeutic interventions should be applied to those cardiac patients. The early identification will help to minimize the feelings of intolerance and thus improve the overall wellbeing of the cardiac patients. Patients should be guided how to deal with the emotional stress and the intolerant situations after the medical issues have been identified and life styles changes come after the medical issues. Such therapeutic centers should be developed in each medical facilities making patients at ease in sharing the feelings and receiving catharsis for the life situations and internal turmoil's.

Conflict of interest: None declared.

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