

Social Intolerance and Psychological Distress among Cardiac Patients: Moderating Role of Emotional Regulation

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Difficulties in emotional regulation strategies increase feelings of intolerance toward dissimilar ideas and increase vulnerability toward distress feelings. The present study intended to highlight the moderating role of emotional regulation on the relationship between social intolerance and psychological distress among cardiac patients. Whereas, the main study was aimed to examine the predictive effect of research hypotheses ($N = 150$) among cardiac patients between the age of 20-60 years ($M = 3.14$, $SD = 0.99$). Results of the main study showed positive relationship between discomfort intolerance, entitlement, emotional intolerance, achievement frustration, depression, anxiety, and stress. Moderation results showed that emotional reappraisal moderated the relationship between achievement frustration and anxiety. Emotional reappraisal also moderated between entitlement and stress. From the results, it is concluded that that practice of emotional reappraisal as emotional regulation and reduced expressive suppression leads to lower level of social intolerance and psychological distress.

Keywords. Discomfort intolerance, entitlement, emotional intolerance, achievement frustration, emotional regulation, psychological distress

The prevalence rates of enduring illness such as cardiac issues are increasing in Pakistan (Steptoe & Brydon, 2009). These illnesses keep persisting throughout life leaving diverse effect on physical, emotional, and social life of cardiac patients. Optimistic emotional adjustment strategies provide endurance for the unforeseen and

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unwanted situations, which results in healthier relationships, improve feelings of better well-being, and contentment. Medical dysfunction of blood vessels, arteries, and small capillaries, are basic reason that leads to diverse types of cardiac diseases (Maton, 1993). About 85% of the countries are facing increase in cardiac issues, which is more prevailing among individuals' belonging to lower and middle class. Pakistani cardiac patients experience diverse treatment issues, which include un-availability of facility throughout the country and inexperienced practice issues shown by medical professionals (Stephoe & Brydon, 2009; Strike & Steptoe, 2003). For that the present study was intended to explore the moderating role of emotional regulation on the relationship between social intolerance and psychological distress among cardiac patients.

The concept of emotional regulation has been elaborated as social and genetic mechanism, which is majorly accountable for assessing, observing, modifying the emotional and behavioral response (Aldao, 2013; Campos, Frankel, & Camras, 2004; Santucci et al., 2008). Dugas, Schwarz, and Francis (2004) elaborated social intolerance as a mental biased mechanism that affect's a person's perception, comprehension, and alteration of emotional, mental, and social response toward intolerable situations that increases mental pressure (Jabeen, Haque, & Riaz, 2013). Emotional problems in present study are labeled as psychological distress which is mental condition of emotional tension, emotional unhappiness, anguish, misunderstanding, and emotional disruption (Horwitz, 2007; Potter, 2007).

Social Intolerance and Psychological Distress

Frustration intolerance has different impact on different domains of life (Chand, 2015). McNally (2002) revealed that cadets with higher discomfort intolerance reported higher sick role (not participating in training) even when the treatment methods and, demographic variables were controlled in the study. Numerous factors in educational sector effect the academic achievement among the students. Wilde (2012) highlighted that students higher on frustration intolerance were higher on procrastination and were less involved in academic activities. Achievement frustration was found to be positively related with academic achievement. Emotional intolerance, distress intolerance, and entitlement were found to be negatively related with the academic achievement (poor GPA) (Harrington, 2005).

Grubbs and Exline (2016) highlighted that individuals high on entitlement (subdomain of social intolerance) have feelings of being special, deserving everything, and inflated potential. The study

highlighted the different steps of entitlement exaggerated expectations; develop cognitive schemes of disappointment that leads to dissatisfaction, anger and impulsive responses. According to researcher's entitled individuals at each stage experience psychological distress, interpersonal difficulties and apprehensive feelings associated with subsequent steps. The dimension of entitlement has been linked with poor educational performance among students (Anderson, Halberstadt, & Aitken, 2013; Harrington, 2005). Individual high on emotional intolerance require quick relief from the intolerant feelings when these feelings linger on for longer duration it led to increased anger, hopelessness, self-deprecation, and higher anxious feelings (Harrington, 2006). However, discomfort intolerant individual require hassle free life when confronted with discomfort feelings, these individual experiences low self-esteem, low mood and depressive feelings. Higher achievement frustrations are feelings of being detached from desired goals and perfectionism, which relate to thwarted feelings, found to be negatively related with depression (Chen & Hong, 2010; Norr et al., 2013).

Emotion Regulation and Psychological Distress

Human emotions change as per condition. Emotion regulation is recognized as a major factor behind development of distress feelings and enhanced feelings of well-being (Castella et al., 2013). The mechanism of emotional reappraisal is involved in developing the optimistic solution in order to minimize the distressing feelings related to traumatic situations that focus on modification and alteration of emotional responses (Carthy, Horesh, Apter, Edge, & Gross, 2010; Gross, 1998). Researchers have found negative relationship between reappraisal and psychological distress (Fresco, Mennin, Heimberg, & Ritter, 2013). Previous researches by Contreras, Kerns, Weimer, Gentzler, and Tomich (2000) highlighted the role of parental attachment styles in emotional regulation strategies. The researcher found that lack of parental warmth, and poor learned expression of positive emotions (negative emotional regulation) were found to be linked with expression difficulties (Eisenberg et al., 2005). For that present study was intended to explore the moderating role of emotional regulation (e.g., emotional reappraisal and expressive suppression) in the relationship between social intolerance and psychological distress among the cardiac patients. As literature suggested that onset of the medical illness and poor emotional regulation strategies with health issues increases one's sensitivity and intolerant feelings for social circumstances and lead to diverse emotional issues.

Research (Katherine, Dixon-Gordon, Gratz, Breetz, & Tull, 2013) highlighted that suppression strategy in patients with borderline personality disorder increased feelings of relational sensitivity that lead to confused identity among the patients. In the cardiac field, the role of emotion-focused coping mechanism enables patients to manage and direct their emotional responses during and after bypass surgery (Ben-Zur, Rappaport, Ammar, & Uretzky, 2000). After bypass surgery, high level of emotion reappraisal assist the patients in better adaptation to medical illness which is related with low level of distress feelings (Patron, Benvenuti, Favretto, Gasparotto, & Palomba, 2013; Rudolph, Troop-Gordon, & Granger, 2010). Male participants are found to be higher on frustration intolerance (Berkner, He, & Cataldi, 2002). Norton, Cosco, Doyle, Done, and Sacker (2013) highlighted that cardiac patients with more than 10 year of illness show more depressive symptoms and higher perceived pain feelings. Study by (McRae et al., 2012) have shown positive association between age and emotional reappraisal as maturity plays its significant role in making people better adjusted in social situations (Garnefski & Kraaij, 2006; Luna, Padmanabhan, & O'Hearn, 2010). Whereas, distress feelings are more prominent in elder patients (e.g., > 50 years) when individual uses more suppression strategies. High level of poor emotional manifestation, fatigue issues, poor health insight, and living alone are strong correlates of higher distress feelings among cardiac patients (Yu, Lee, Woo, & Thompson, 2004).

Different psychological patients utilize more suppression that increase rigidity, inflexibility, fixation, and avoidance behavior (Gonzalez, Zvolensky, Solomon, & Miller, 2010; Watkins, 2008). In such conditions lack of emotion reappraisal (positive strategies) in psychological patients make the client deal ineffectively with frustrating situation by using more anxiety, rumination, and self-deprecation that lead to prolongation and worsening of emotional disorder (Mennin & Fresco, 2009; Newman & Llera, 2011). Among heart failure patients 15% to 36% suffered from depression, whereas 29-45% patients suffered from anxiety symptoms (Chiavarino et al., 2012; Gary, Dunbar, Higgins, Musselman, & Smith, 2010; Scherer, Stanske, Scherer, Kochen, & Herrmann-Lingen, 2007). Psychological distress has been explored in professional expressing high stress level. 41.9% students of stressful study domain e.g., nursing/midwifery suffered from psychological distressed. Demographic factors such as study hours, lower socio-economic status, living alone and social pressures related to educational domain (Deasy, Coughlan, Pironom, Jourdan, & Mannix-McNamara, 2014).

Emotional Regulation as Moderator between Social Intolerance and Psychological Distress

Individuals' cognitive and emotional strategies fluctuate views about the social conditions. For that present study explored the moderating role of emotional regulation between social intolerance and psychological distress among the cardiac patients. Higher psychological distress is positively linked with poor symptom control, poor functional ability, hospital readmission, shorten life duration among cardiac patients (Romanelli, Fauerbach, Bush, & Ziegelstein, 2002). Vast number of western researches have highlighted the role of emotional regulation in development of psychological distress (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Katherine et al., 2013; Pitskel, Bolling, Kaiser, Crowley, & Pelphrey, 2011), but the emotional regulation acting as moderating factors have not been explored in Pakistani context. There is need to explore the moderating role of the variables in relation to the study variables to fill up the existing gap.

In Pakistani culture, like any social community, being open and expressive are considered appropriate manner of emotional expression. In nonclinical population, higher suppression strategy and less utilization of reappraisal strategy result in different features of psychological distress (Kovacs, Joormann, & Gotlib, 2008). Suppression, rumination, and emotional regulation difficulties in response to frustrating situation are major risk factors that cause early onset, longer duration, and remission of psychological disorders (Ehring, Tuschen-Caffier, Schnulle, Fischer, & Gross; 2010; Ehring, Fischer, Schnulle, Bosterling, & Tuschen-Caffier, 2008; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008).

Discomfort intolerance subdomain of tolerance is linked with incapability to resist painful bodily feelings that leads toward maintenance of panic and anxiety disorder (Schmidt, Richey, Cromer, & Buckner, 2007; Schmidt, Richey, & Fitzpatrick, 2006; Simons & Gaher, 2005). Similarly, role of distress tolerance in multiple western researches have been highlighted as one of major factor behind development and maintenance of psychopathology (Leyro, Zvolensky, & Bernstein, 2010; Zinchenko, Pervichko, & Martynov, 2013; Zvolensky & Otto, 2007). Past researches have highlighted the integrative role of emotion regulation in relation to psychopathology and health co-morbidity (Agar-Wilson & Jackson, 2012; Mennin & Fresco, 2010).

Clinical researchers are focusing on highlighting the role of tolerance in enhancing the emotional, mental and physical stressors of cardiac patients that facilitate in minimization of psychological

distress (Steptoe & Brydon, 2009; Zvolensky & Otto, 2007). Cardiac illness involve longer duration of medical procedures, health complication, and diverse painful medical procedures that increases frustrated feelings, specifically, emotional regulation difficulties that leads to diverse distress issues (Barlow, Allen, & Choate, 2004). Although, number of scholarly and clinical work have focused on tolerance processes and its applications. Surprisingly, limited studies have evaluated the role between definite tolerance construct and psychological distress. The present study is an attempt to highlight the role of specific tolerance variables with dimensions of psychological distress. Number of studies have found psychological distress in chronic illness specifically cancer and AIDS experiencing diverse symptoms of anxiety and depression (Gonzalez et al., 2010). Brandt (2013) explored the link between perceived distress tolerance and anxiety and depressive symptoms with mediating role of emotion dysregulation in HIV positive by infected patients. Results of the study showed that distress intolerance increased depression and anxiety, panic, and social anxiety among the HIV positive individuals. To date, there is scarce in this domain in indigenous researches as none of the research has examined emotional regulation as mediator factor between different levels of social intolerance that may account for higher psychological distress among population of cardiac patients.

Previous researches have considered social intolerance, psychological distress, and emotional regulation as independent variables in relation with other purposed variables. Indigenous research by Tahira (2014) highlighted that chronic shame mediate between all social intolerance sub-domains and psychopathology. Likewise, psychological distress has been linked with resilience and coping strategies (Amira, 2010), repetitive negative thought (Ahmed, 2014), and rumination styles (Kazmi, 2014). Whereas, emotional regulation has been found to be linked with parental condition (Saeed, 2013), better adjustment (Gul, 2014). In indigenous culture diverse medical issues e.g., cancer and tuberculosis have been linked with other psychological variables as illness perception and life styles (Kazmi, 2014).

The variables of emotional regulation as positive strategies (resilient factor) have been explored in diverse population including students with independent characteristics, but only few researches have explored the effect of emotional regulation as variables that help to moderate in the dealing with life condition and help to reduce the consequences related to stressful conditions. The variables of emotional regulation, social intolerance, and psychological distress

have been explored in diverse populations as independent constructs. Due to literature gap with reference to present study variables the present study is an attempt to find the moderating role in relationship between social intolerance and psychological distress among cardiac patients. The effect of higher social intolerance feelings in cardiac patients with diverse medical cardiac conditions was explored that could contribute or make cardiac patients more vulnerable toward different emotional issues. The prime objective of the present study are; to offer an interesting approach to highlight the interlinked relationship existing in emotional regulation subdomain, social intolerance, and psychological distress among the cardiac patients.

Method

Hypotheses

1. Discomfort intolerance, entitlement, emotional intolerance, and achievement frustration are positively related with psychological distress among cardiac patients.
2. Emotional reappraisal is negatively related with depression, anxiety and stress among cardiac patients.
3. Expressive suppression is positively related with depression, anxiety, and stress among cardiac patients.
4. Emotional reappraisal and expressive suppression moderate the effect of social intolerance on depression, anxiety, and stress among cardiac patients.

Participants

Sample of study included 150 cardiac patients, both male ($n = 80$, 53.33%) and female ($n = 70$, 46.66%). The selected cardiac patients age ranged from 20-60 years ($M = 3.14$, $SD = 0.99$). For sample selection purposive convenient sampling technique was employed. The inclusion criterion required only referred cases by the cardiologists of specific cardiac wards/centers. Only educated cardiac patients were included in the sample. As the study procedure required relaxed medical state, therefore, cardiac patients with stable medical condition were included. After literature review, medical consideration and keeping the ethical consideration the bypass patients were taken when 1 year of surgery had elapsed. The participants of study were taken from Benazir Bhutto Hospital ($n = 30$, 20.0%), Heart international Hospital ($n = 48$, 32.0%), Pakistan Institute of Medical Sciences ($n = 40$, 26.66%), and Rawalpindi Institute of Cardiology ($n = 32$, 21.33%). Cardiac patients with any psychological issues and not fulfilling inclusion criterion were excluded from study.

Measures

Frustration Discomfort Scale (FDS). It was developed by Harrington (2005), which consist of 28 items. The English version of FDS was utilized in present study. The scale is 5 point Likert type score ranging from (1= *absent* and 5= *very strongly*). The scale is comprised of four subscales for example, Discomfort Intolerance (7 items, score range 7-40), Entitlement (7 items, score range 7-40), Emotional Intolerance (7 items, score range 7-40), and Achievement Frustration (7 items, score range 7-40) which assess feelings of intolerance among cardiac patients. The higher score on each subscales indicated higher discomfort intolerance, emotional intolerance, entitlement, and achievement frustration and vice versa. All the items in the scale are positively phrased having no negative items. The alpha coefficient of sub-scales was (.91, .88, .90, and .82,) and for the full scale is .95. The Chronbach's alpha reliability of Frustration discomfort scale ranged from .67 - .73 (Harrington, 2005). Alpha reliabilities in present study of Discomfort Intolerance were (.86), Entitlement (.81), Emotional Intolerance (.91), and Achievement Frustration (.74).

Emotional Regulation Questionnaire (ERQ). ERQ was developed by Gross and John (2003) to assess different approaches of emotional regulation strategies in cardiac patients. The scale consists of 10 items 6 items for sub-domain of Emotional Reappraisal and 4 items that measured Expressive Suppression. English version of the scale was utilized in present study. The scale is 7-point rating scale (*strongly agree* = 7 to *strongly disagree*= 1). The score of emotional reappraisal ranged from 6 to 42 and score of expressive suppression ranged from 4 to 28. The higher score on emotional regulation strategies indicated more utilization of reappraisal as regulation strategy whereas higher score on suppression indicated more utilization of particular strategy being employed by the cardiac patients. All the items in the scale were positively phrased having no negative items. The original reliability of scale is .71 (Gross & John, 2003). The alpha reliability of Emotional Regulation Questionnaire in present study ranged from .93- 95.

Depression Anxiety Stress Scale-21 (DASS-21). Shorten version of DASS-21 basically measures features of distress among cardiac patients. The scale is confirmed by 21 items, divided into three subscales, namely, depression, anxiety, and stress, with 7 items in each subscale. English version of the DASS-21 was utilized in present study. The scale is 3 - point Likert scale (0 = *do not apply to me at all* and 3 = *applied to me very much*). The score range of subscale of

Depression was (0 - 21), Anxiety was 0 - 21), and Stress was (0 - 21). Higher score on each scale indicated higher level of depression, anxiety and stress in cardiac patients and vice versa. The alpha reliabilities of DASS subscales range from .88 to .93 (Lovibond, & Lovibond, 1995). The alpha reliabilities of DASS subscales are as follows i.e., Depression (.92), Anxiety (.93), and Stress (.88) respectively.

Procedure

In the initial step of research, the permissions from the authors of the instruments were taken. The cardiac units were approached in next step and they were briefed about the research objectives and data collection procedure was also elaborated. After receiving relevant permission the required sample was approached. The patients were approached individually and they were informed about the research aim after receiving consent from each participant. General instructions related to instrument completion was also given to clear any uncertainty. At completion, the participants were thanked for their cooperation.

Results

To attain the objectives of the study the data collected from the cardiac patients were statistically analyzed. For exploration of relationship between social intolerance, emotional regulation and psychological distress the Pearson Moment Correlation was carried out. The third objective of the study was to explore the moderating role of emotional regulation (i.e., emotional reappraisal and expressive suppression) in the relationship between social intolerance and psychological distress among cardiac patient for that purpose Hierarchical Multiple Regression Analysis was done.

Relationship between Social Intolerance, Psychological Distress, and Emotional Regulation

The analysis was carried out on the total sample of 150 cardiac patients including males ($n = 80$) and females ($n = 70$) which were taken from cardiac units of Rawalpindi and Islamabad. The cardiac patients between age ranges of 20-60 years were selected. The samples of cardiac patients only fulfilling the inclusion criterion were taken the cardiac patients. Numbers of cardiac patients were excluded from sample for not fulfilling the inclusion criterion.

Table 1

Correlation matrix among Social Intolerance, Emotional Regulation and Psychological Distress (N= 150)

	1	2	3	4	5	6	7	8	9
1 Discomfort Intolerance	-	.54**	.67**	.45**	-.70**	.68**	.63**	.54**	.12
2 Entitlement		-	.35**	.46**	-.44**	.47**	.46**	.29**	.19*
3 Emotional Intolerance			-	.39**	-.57**	.57**	.54**	.41**	.18*
4 Achievement Frustration				-	-.44**	.44**	.32**	.44**	.18*
5 Emotional Reappraisal					-	-.88**	-.68**	-.56**	-.10
6 Expressive Suppression						-	.67**	.56**	.18*
7 Depression							-	.49**	.05
8 Anxiety								-	.07
9 Stress									-
<i>M</i>	25.39	22.63	22.90	21.02	22.28	14.28	24.14	26.41	13.39
<i>SD</i>	6.18	5.46	5.79	5.13	7.88	5.34	5.59	5.20	5.28

Note. 1= Discomfort Intolerance, 2= Entitlement, 3= Emotional Intolerance, 4= Achievement Frustration, 5= Emotional Reappraisal, 6= Expressive Suppression, 7= Depression, 8= Anxiety, 9=Stress

* $p < 0.05$, ** $p < 0.01$

Table 1 highlights significant positive relationship between subscales of social intolerance and psychological distress supporting first hypothesis of the research. Table 1 also shows emotional reappraisal has significant negative relationship with subscales of psychological distress supporting second hypothesis of the study. Third hypothesis of study is also supported showing that expressive suppression has positive relation with psychological distress.

Moderation Role of Emotion Regulation between Social Intolerance and Psychological Distress

Moderation effect of the current research have different expected outcome. The Table 2 shows that the emotional reappraisal as moderator with discomfort intolerance explained total of (57.4%) variance in depression. The moderator result also shows that moderator (emotional reappraisal) increase (1.6%) variance in variable of depression (Table 2). Additionally, the Table 2 showed that

emotional reappraisal significantly moderated the relationship between achievement intolerance and anxiety in cardiac patients as $B = .02$; $R^2 = .47$ and ($p < .04$). The model showed that moderator (emotional reappraisal) increased brought about additional 3% change in social intolerance and anxiety variables. Similarly, emotional reappraisal significantly moderated the relationship between entitlement and stress in cardiac patients as $B = .02$; $R^2 = .15$ and ($p < .01$).

Further, multiple hierarchical regression of moderating outcome of expressive suppression in the relation of social intolerance and depression, anxiety and stress was also explored, but the analysis showed no significant moderation occurred in the association of social intolerance and psychological distress.

Table 2

Moderating Role of Emotional Reappraisal predicting depression, anxiety, and stress from social intolerance (N = 150)

Moderators	Predictors	Dependent variables					
		Depression		Anxiety		Stress	
		ΔR^2	B	ΔR^2	B	ΔR^2	B
Emotional reappraisal	Step 1	.004		.061		.016	
	Control variables						
	Step 2	.554		.382		.063	
	Discomfort intolerance		.19*		.24*		-.10
	Entitlement		.13		-.09		.17*
	Emotional intolerance		.14		-.00		.15
	Achievement frustration		-.06		.31**		.09
	Emotional reappraisal		-.35**		-.22**		.06
	Step 3	.016		.030		.075	
	Discomfort intolerance × Emotional reappraisal		-.02		-.02		-.00
	Entitlement × Emotional reappraisal		-.00		.00		.02*
	Emotional intolerance × Emotional reappraisal		.00		.00		.00
	Achievement frustration × Emotional reappraisal		-.00		.02*		.01
	Total R^2		.574		.473		.153

Note. Control variables: age, and gender; * $p < .05$, ** $p < .01$, *** $p < .001$

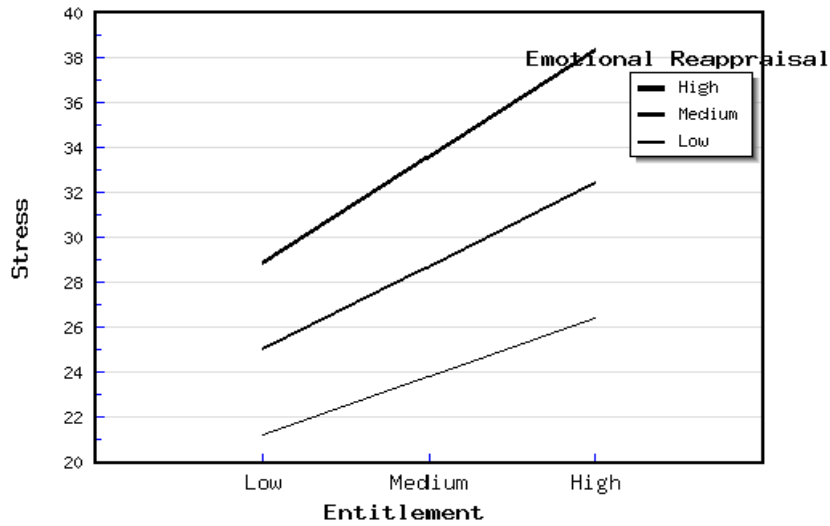


Figure 1. Expressive suppression’s moderation effect on the link between entitlement and stress.

Figure 1 shows with the increase of emotional reappraisal the relationship between entitlement and stress is positively increased in cardiac patients. At low level of emotional reappraisal, the relationship between entitlement and stress is less strong as compare to a high level of emotional reappraisal.

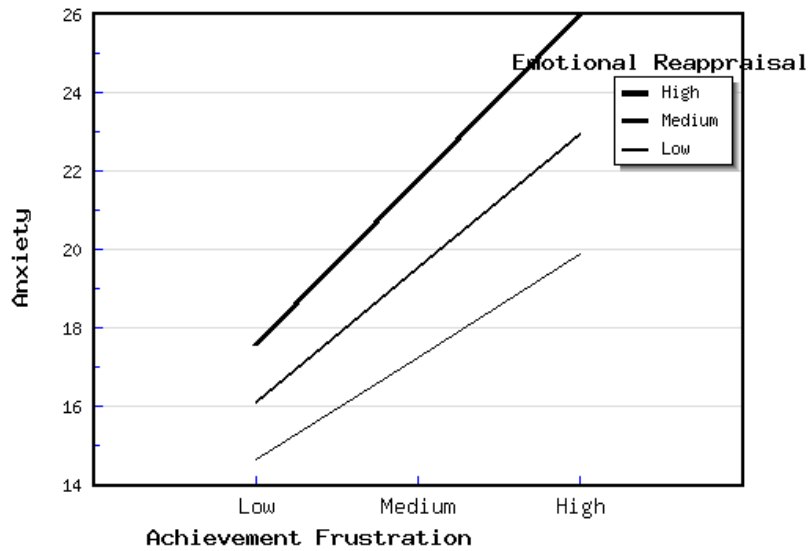


Figure 2. Emotional reappraisal’s moderation effect in the association between achievement frustration and anxiety.

Figure 2 highlighted low level of emotional reappraisal and achievement frustration increases anxiety.

Discussion

The high intolerance makes individual less open to explanation and recognition and develops feelings of tension and low mood. For that initially the present study was aimed at exploring the existing relationship between emotional regulation, social intolerance, and psychological distress among cardiac patients. The study variables of social intolerance were measured by using Frustration Discomfort Scale (Harrington, 2005), emotional regulation was assessed by Emotional Regulation Questionnaire (Gross & John, 2003), and psychological distress was assessed by Emotional Regulation Questionnaire (Gross & John, 2003). The present study also aimed at exploring the moderating role of emotional regulation in the association among social intolerance and psychological distress among cardiac patients.

The result of the current study supported the first hypothesis that the domains of frustration intolerance that is discomfort intolerance, entitlement, emotional intolerance, and achievement frustration significantly increase level of feeling of distress (e.g., depression, anxiety and stress) among cardiac patients. The inability to accept the difference in reality and personal requirement make individual prone toward higher intolerance and increase vulnerability for emotional issues. Cardiac patients due to life styles changes and physical sensitivity experience more depression during physical ailment. In Pakistan, financial burdens, increasing inflation issues, noise pollution, family conflicts, agitated aggression existing in general population overall effect the intolerant feelings in cardiac patients. Such emotional sensitivity in cardiac patients leads to significant depressive feelings as they experience lack of control in goal attainment, failure feelings and worthless specifically after the cardiac issues. On contrary high level of anxiety features are associated with inability in handling stress, nervousness about negative outcome and anxious abrupt feelings associated with intolerant situation. As rational emotional behavior therapy (REBT) highlighted that inability in effective handling, management and adjustment to frustrating situation leads to higher feelings of distress (Bond & Dryden, 2000; McEvoy & Mahoney, 2012; Williams, Thompson, & Andrews, 2013). Preceding researches have found that discomfort intolerance, entitlement, emotional intolerance and achievement frustration upsurge feelings

distress among cardiac patients. Individual with increase narrow-mindedness for emotional stress, with cognitive belief that person should be center of attention, incapability in management of fixated emotions and failure in achievement of aims in life leads to high feelings of concern, hassle and depressing symptoms (Schienele, Köchel, Ebner, Reishofer, & Schäfer, 2010). As the intolerant situation keep persistent, the sensitivity for discomfort situation increases and ignorance become prominent or otherwise dealt with severe emotional intolerance (Harrington, 2006). The higher ambiguity for being center of attention and belief that sharing one's status in family is unbearable exaggerates intolerance feelings, and aggressive feelings in cardiac patients. Similarly, health difficulties, life changes, status (e.g., social, economic, and emotional) change in family among the cardiac patients leads to higher feelings of strain, apprehension, insignificance, and sadness (Martin & Dahlen, 2004; Roemer, Salters, Raffa, & Orsillo, 2005) are thus supporting the same notion (see Table 1).

The second hypothesis of the current study is supported by research data which showed that emotional reappraisal had negative relationship with depression, anxiety and stress. Irrational expressive patterns due to lack of developing sophisticated mental adaptive mechanism of thinking increase expression of emotional distress in social settings (Aldao, 2013; Kring & Sloan, 2010; Watson, 2005). Correspondingly, better regulation strategies and thought processes give ease in alteration of negative emotion response that enable the maintenance of positive feelings and increase individual strength to deal with emotional anguish (Carthy, Horesh, Apter, Edge, & Gross, 2010; Detweiler-Bedell, Friedman, Leventhal, Miller, & Leventhal, 2008; Ehring, Tuschen-Caffier, Schnülle, Fischer, & Gross, 2010;). Cardiac patients with higher level of emotional reappraisal develop intended flexibility, experience rapid modification of adverse negative feelings for intolerant situation into more optimistic sentiments. Higher emotional reappraisal give cardiac patients a broaden chance for persistence of optimistic reactions and sentiment modification for intolerant situations. These emotional reappraisal strategies give extended diversion from one situation to another due to environmental changes that helps to reduce disadvantaged, anxious and stressful emotions (Etkin, Prater, Hoefl, Menon, & Schatzberg, 2010; Etkin & Schatzberg, 2011) (see Table 1).

The third hypothesis of the study is also supported by the current study data. As individuals with high level of expressive suppression experience difficulty in comprehending and decision-making that increases negative mental partialities, hypervigilance for emotional

intolerant situations (Cacioppo & Hawley, 2009). In expressive suppression the individual alter the sentiment associated with their emotions by fabricating the expressive response by hiding their true moods. Higher suppressive individuals keep consistent mental schemas internally but avoid alteration of mental schemas which in longer run increase grief feelings among the cardiac patients (Patron et al., 2013). The stubborn utilization of communicative suppression assists the cardiac patients use more maladaptive regulation approaches such as deliberate inflexibility by possessing or escaping stressful situation. The inner hindrance increase more emotional responses of agony, anxious features thus this idea is also supported by previous researches (Beatty & Lambert, 2013; Marshall, Zuroff, McBride, & Bagby, 2008; Sturman & Mongrain, 2010; Watkins, 2008) (see Table 1).

The fourth hypothesis of the study explored the moderating role of (emotional reappraisal and expressive suppression) in the relationship between social intolerance and psychological distress among cardiac patients. Hierarchical multiple regression analysis was utilized to explore the moderating effects in comprehensive manners.

The fourth hypothesis of the study is partially supported by the data. The results presented that emotional reappraisal moderated in the relation between achievement frustration and anxiety in cardiac patient. Emotional reappraisal augmented (3%) variance in the relation of social intolerance and anxiety outcome (see Table 2). The result of the moderation were also depicted in pictorial representation of mod graph which revealed that at high level of emotional reappraisal the achievement frustration increase anxiety features. Study by McHugh et al. (2014) showed that achievement frustration in individual aggregate level of anxiety as the difficulties for current condition get worsen and when the aims of high goal success is not succeeded and rigidity in accomplishment of goals with high standard make these individuals feel higher arousal feelings. When these feelings are associated with the medical illness with poor lethargic feelings, restriction for involvement in higher stress task with less physical involvement in previous mastery task increase anxious and restlessness feelings among the cardiac patients.

Higher level of intolerance for insufferable conditions and when the feelings of goal achievement for the offensive goals are thwarted the anxiety level upsurges (Chand, 2015). Similarly, when the goals of cardiac patients are unachieved in life which increases the probability of lowering personal standards that make the condition more intolerable. These up-surged conditions develop apprehensive and fearful feelings in the cardiac patients regarding his/her abilities

specifically when the ideas of personal potential are forsaken (Chen & Hong, 2010). Cardiac patients experiencing more level of discomfort and lack of accomplishment in social situations develop higher apprehension feelings about possibility of goal attainment and fear of failure in contentment of desirable goals which are thus generalized for all life situations (Grubbs & Exline, 2016). Inability in utilizing reappraisal approach for anguish feelings prevents adaptation to expressive provocations which increase sensitivity for anxious-related beliefs (Grubbs & Exline, 2016; Mennin & Fresco, 2009; Newman & Llera, 2011). Reappraisal strategy enables the people in adapting elastic approach for altering manner of thinking for aversive stimuli and to change response as per situation (Kring & Sloan, 2010; Patron et al., 2013). The moderation effect, of reappraisal for discomfort and emotional intolerance is non-significant in relation to anxiety. General observation shows that cardiac patients experience more severe level of discomfort, emotional intolerance due to medical conditions. The medical conditions with the painful medical procedure, economic burdens, life pattern changes and feelings of being ineffective accelerate the emotional and unease state in the cardiac patients.

The moderation effect of emotional reappraisal in the relation between entitlement and stress is found to be significant. The emotional reappraisal (moderator) increased (7.5%) variance in outcome variables of stress. The mod graph of the reappraisal in the link between entitlement and stress is also represented in pictorial form (Figure 2) where more reappraisal level is linked with decrease in entitlement and stress. Cardiac patients with high entitlement develop exaggerated/maladaptive beliefs related to self-importance, which leads to stress feelings. Incapability for determination, low self competence belief, low motivation develops due to medial state make stressful conditions more unbearable. Emotional reappraisal help individual realize his/her potential abilities with alteration in desired goals depending upon the existing capabilities' help to reduce intolerant and stress feelings among the cardiac patients. As general observation, cardiac patients using more reappraisal in indigenous culture recognize the hazard associated with high desired goals so for personal comfort they adopt more easy goals which are more achievable thus create more contended feelings and less frustrated feeling among the cardiac patients. Anderson et al. (2013) also showed that higher entitlement develop poor optimistic higher goal ideals despite the realistic possibilities always make individual prone for higher level of stress (Harrington, 2005; Schienele et al., 2010).

The moderation analysis of suppression in the relation between subscales of social intolerance and distress is found to be non-

significant. Literature have highlighted that suppression is an effort to develop subside destructive feelings, thoughts, concepts, dispositions in form of repression for particular situation and depict true desires in form of camouflage (Gross, 1998). The higher level of expressive suppression has been perceived to be involved in higher social intolerant feelings. The social intolerance for undesirable situation by suppression strategy is expressed in form of avoidance of ambiguous situation despite the effort to handle and approach the situation in effective manner (Chiavarino et al., 2012; Norr et al., 2013). Suppression strategy for longer time for antagonistic situation, leads to inability in absorbing information related to the aversive situation which make the cardiac patients become more anxious, miserable and aggressive (Ehring et al., 2010; Leyro et al., 2010). But the cardiac patients in indigenous culture alter the mechanism of response to intolerant situation by accepting the frustration as result of medical condition not as due to situational intolerance. Similarly, in indigenous culture cardiac patients attempt to adjust with the physical condition by adopting flexible approach for life hassles in spite of avoiding the situation and camouflaging the emotions by alternative emotions or dealt with hostile conditions in spite of suppressing the emotional response. The social affiliations in the indigenous culture also play crucial role in making better adjustment to life situation as compare to withdrawal from situation which enables less utilization of emotion suppression as response strategy (Leyro et al., 2010). Lastly, in indigenous culture the social situation is not the only stressors which increase the chances of distress feelings in cardiac patients so some other factors like economic burden, job loss, medical expenses, longer hospitalization, diet restrictions, and activity restrictions due to cardiac conditions could be major reasons for frustration and distress feeling and role of suppression in development of distress in relation to social intolerance is difficult to predict.

Conclusion

The cardiac patients' incompetency in better adjustment to severe life circumstances leads to higher social intolerance experience and increase patients' higher liability toward distress. The current research explore that the higher social narrowness is most convincing feature that increase the vulnerability of psychological distress. The components of social intolerance are positively related to subscales of psychological distress. The component of emotional reappraisal has negative whereas suppression has positive relation with psychological

distress. Emotional reappraisal moderates in relation of achievement frustration and anxiety and entitlement and stress.

Limitations and Recommendations

In spite of best efforts to make research flawless, current research has certain limitations. In following the inclusion and exclusion criterion and due to time constriction, small sample was taken, further studies should gather more data from rural and different cities of Pakistan, which would highlight prevalence of studied phenomenon in cardiac patients across Pakistan. Only educated patients were included in present study because of instruments language restriction, but as large number of Pakistani population is illiterate Urdu version scales could enable the addition of uneducated participant which would possibly edify different profiles. Additionally, the study aimed variables were assessed by self-report inventory but to explore the contributing factors and social issues in indigenous culture which were not part of self-report inventory qualitative research could hinder the essential factors that are main motive behind the better emotional regulation strategies, rise of distress and intolerant in cardiac patients. Lastly, current research found that better emotional regulation strategies minimized level of intolerance and negative emotions among cardiac patients, which is explored through correlation method but further research could utilize longitudinal research design to highlight the gradual processes of development of intolerance and distress during the cardiac illness duration and what kind of alteration of emotional regulation occurs in duration of cardiac illness.

References

- Agar-Wilson, M., & Jackson, T. (2012). Are emotion regulation skills related to adjustment among people with chronic pain, independent of pain coping. *European Journal of Pain*, *16*(1), 105-114.
- Ahmed, M. K. (2014). *Relationship between repetitive thoughts, psychological distress and role of coping strategies among university students* (Unpublished M.Phil dissertation). National Institute of psychology, Quaid-i-Azam University, Islamabad.
- Aldao, A. (2013). The future of emotion regulation research: Capturing context. *Perspectives on Psychological Science*, *8*(2), 155-172. doi: 10.1177/1745691612459518
- Aldao, A., Nolen-Hoeksema, N. S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review* *30*, 217-237. doi:10.1016/j.cpr.2009.11.004

- Amira, B. (2010). *Psychological distress, resilience, and coping strategies among families of missing persons* (Unpublished M.Sc thesis). National Institute of psychology, Quaid-i-Azam University, Islamabad.
- Anderson, D., Halberstadt, J., & Aitken, R. (2013). Entitlement attitudes predict students' poor performance in challenging academic conditions. *International Journal of Higher Education, 2*(2), 151-158.
- Barlow, D. H., Allen, L. B., & Choate, M. L. (2004). Toward a unified treatment for emotional disorders. *Behavior Therapy, 35*, 205-230.
- Beatty, L., & Lambert, S. (2013). A systematic review of internet-based self-help therapeutic interventions to improve distress and disease-control among adults with chronic health conditions. *Clinical Psychology Review, 33*(4), 609-622.
- Ben-Zur, H., Rappaport, B., Ammar, R., & Uretzky, G. (2000). Coping strategies, lifestyle changes, and pessimism after open-heart surgery. *Health Social Work, 25*, 201-209.
- Berkner, L., He, S., & Cataldi, E. F. (2002). *Descriptive summary of 1995-96 Beginning postsecondary students: Six years later (NCES 2003-151)*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Bond, W. B., & Dryden, W. (2000). How rational beliefs and irrational beliefs affect people's inferences: An experimental investigation. *Behavioural and Cognitive Psychotherapy, 28*, 33-43.
- Brandt, P. C. (2013). *Distress tolerance, emotion dys-regulation, and anxiety and depressive symptoms among HIV+ individuals* (M.Sc thesis). The Department of Psychology, University of Houston, America.
- Cacioppo, J. T., & Hawkey, L. C. (2009). Perceived social isolation and cognition. *Trends in Cognitive Science, 13*, 447-454.
- Campos, J. J., Frankel, C. B., & Camras, L. (2004). On the nature of emotion regulation. *Child Deviance, 75*(2), 377-94.
- Carthy, T., Horesh, N., Apter, A., Edge, M. D., & Gross, J. J. (2010). Emotional reactivity and cognitive regulation in anxious children. *Behavior Research and Therapy, 48*, 384-393. doi:10.1016/j.brat.2009.12.013.
- Castella, De. K., Goldin, P., Jazaieri, H., Ziv, M., Dweck, S. C., & Gross, J. J. (2013). Beliefs about emotion: Links to emotion regulation, well-being, and psychological distress. *Basic and Applied Social Psychology, 35*, 497-505. doi: 10.1080/01973533.2013.840632
- Chand, L. (2015). A study of frustration tolerance in relation to achievement motivation and sports achievements. *International Journal of Applied Research, 1*(6), 92-94.
- Chen, Y. C., & Hong, Y. R. (2010). Intolerance of uncertainty moderates the relation between negative life events and anxiety. *Personality and Individual Differences, 49*, 49-53. doi:10.1016/j.paid.2010.03.006

- Chiavarino, C., Rabellino, D., Ardito, B. R., Cavallero, E., Palumbo, L., Bergerone, S., ...& Bara, G. B. (2012). Emotional coping is a better predictor of cardiac prognosis than depression and anxiety. *Journal of Psychosomatic Research, 73*, 473-475.
- Contreras, J. M., Kerns, K. A., Weimer, B. L., Gentzler, A. L., & Tomich, P. L. (2000). Emotion regulation as a mediator of association between mother child attachment and peer relationships in middle childhood. *Journal of Family Psychology, 14*, 111-124.
- Deasy, C., Coughlan, B., Pironom, J., Jourdan, D., & Mannix-McNamara, P. (2014). Psychological distress and coping amongst higher education students: A mixed method enquiry. *PLoS ONE, 9*(12), 115-131. doi:10.1371/journal.pone.0115193
- Detweiler-Bedell, B. J., Friedman, A. M., Leventhal, H., Miller, W. I., & Leventhal, A. E. (2008). Integrating co-morbid depression and chronic physical disease management: Identifying and resolving failures in self-regulation. *Clinical Psychology Review, 28*, 1426-1446. doi:10.1016/j.cpr.2008.09.002
- Dugas, M. J., Schwartz, A., & Francis, K. (2004). Intolerance of uncertainty, worry, and depression. *Cognitive Therapy and Research, 28*, 835-842.
- Ehring, T., Fischer, S., Schnulle, J., Bösterling, A., & Tuschen-Caffier, B. (2008). Characteristics of emotion regulation in recovered depressed versus never depressed individuals. *Personality and Individual Differences, 44*, 1574-1584.
- Ehring, T., Tuschen-Caffier, B., Schnulle, J., Fischer, S., & Gross, J. J. (2010). Emotion regulation and vulnerability to depression: Spontaneous versus instructed use of emotion suppression and reappraisal. *Emotion, 10*, 563-572.
- Eisenberg, N., Zhou, Q., Spinrad, T. L., Valiente, C., Fabes, R. A., & Liew, J. (2005). Relations among positive parenting, children's effortful control, and externalizing problems: A three-wave longitudinal study. *Child Development, 76*, 1055-1071. doi: 10.1111/j.1467-8624.2005.00897.x
- Etkin, A., & Schatzberg, A. F. (2011). Common abnormalities and disorder-specific compensation during implicit regulation of emotional processing in generalized anxiety and major depressive disorders. *The American Journal of Psychiatry, 168*, 968-978.
- Etkin, A., Prater, K. E., Hoefl, F., Menon, V., & Schatzberg, A. F. (2010). Failure of anterior cingulate activation and connectivity with the amygdala during implicit regulation of emotional processing in generalized anxiety disorder. *The American Journal of Psychiatry, 167*, 545-554.
- Fresco, M. D., Mennin, S. D., Heimberg, G. R., & Ritter, M. (2013). Emotion regulation therapy for generalized anxiety disorder. *Cognitive and Behavior Practice, 20*(1), 282-300.

- Garnefski, N., & Kraaij, V. (2006). Relationships between cognitive emotion regulation strategies and depressive symptoms: A comparative study of five specific samples. *Personality and Individual Differences, 40*, 1659-1669.
- Gary, R. A., Dunbar, S. B., Higgins, M. K., Musselman, D. L., & Smith, A. L. (2010). Combined exercise and cognitive behavioral therapy improves outcomes in patients with heart failure. *Journal of Psychosomatic Research, 69*, 119-131.
- Gonzalez, A., Zvolensky, M. J., Solomon, S. E., & Miller, C. T. (2010). Exploration of the relevance of anxiety sensitivity among adults living with HIV/AIDS for understanding anxiety vulnerability. *Journal of Health Psychology, 15*(1), 138-146. doi:10.1177/1359105309344898
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*, 271-299.
- Gross, J. J., & John, O. (2003). Individual differences in two emotion-regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*, 348-362.
- Grubbs, J. B., & Exline, J. J. (2016). Trait entitlement: A cognitive-personality source of vulnerability to psychological distress. *Psychology Bulletin, 42*(11), 1204-1226.
- Gul, S. (2014). *Emotional regulation and adjustment among medical students* (Unpublished M. Sc thesis). National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Harrington N. (2005). The Frustration Discomfort Scale: development and psychometric properties. *Clinical Psychology and Psychotherapy, 12*(5), 374-387. doi:10.1002/cpp.465
- Harrington, N. (2006). It's too difficult: Frustration intolerance beliefs. *Personality and Individual Difference, 39*(5), 873-883.
- Horwitz, S. K. (2007). The compositional impact of team diversity on performance: Theoretical consideration. *Human Resource Development Review, 4*, 219-245.
- Jabeen, F., Haque, M., & Riaz, N. M. (2013). Parenting styles as predictors of emotion regulation among adolescents. *Pakistan Journal of Psychological Research, 28*(1), 85-105.
- Katherine, L., Dixon-Gordon, L. K., Gratz, L. M., Breetz, A., & Tull, M. (2013). A laboratory- based examination of responses to social rejection in borderline personality disorder: The mediating role of emotion dysregulation. *Journal of Personality Disorders, 27*(2), 157-171.
- Kazmi, R. S. (2014). *Relationship of rumination styles, psychological distress, and posttraumatic growth in type II diabetics* (Unpublished M.Phil Dissertation). National Institute of psychology, Quaid-i-Azam University, Islamabad.

- Kovacs, M., Joormann, J., & Gotlib, I. H. (2008). Emotion dys-regulation and links to depressive disorders. *Child Development Perspectives, 2*, 149-155.
- Kring, A. M., & Sloan, D. M. (2010). *Emotion regulation in psychopathology: A transdiagnostic approach to etiology and treatment*. New York: Guilford.
- Leyro, T. M., Zvolensky, M. J., & Bernstein, A. (2010). Distress tolerance and psychopathological symptoms and disorders: A review of the empirical literature among adults. *Psychological Bulletin, 136*, 576- 600. doi:10.1037/a0019712
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd ed.). Sydney: Psychology Foundation.
- Luna, B., Padmanabhan, A., & O'Hearn, K. (2010). What has fMRI told us about the development of cognitive control through adolescence? *Brain and Cognition, 72*, 101-113. doi:10.1016/j.bandc.2009.08.005
- Marshall, M. B., Zuroff, D. C., McBride, C., & Bagby, R. M. (2008). Self-criticism predicts differential response to treatment for major depression. *Journal of Clinical Psychology, 64*(3), 231-244. doi:10.1002/jclp.20438
- Martin, R. C., & Dahlen, E. R. (2004). Irrational beliefs and the expression of anger. *Journal of Rational-Emotive and Cognitive-Behavior Therapy, 22*, 3-20.
- Maton, A. (1993). *Human biology and health* (1st ed.). Englewood Cliffs, New Jersey: Prentice Hall.
- McEvoy, P. M., & Mahoney, A. E. J. (2012). To be sure, to be sure: Intolerance of uncertainty mediates symptoms of various anxiety disorders and depression. *Behavior Therapy, 43*(3), 533-545. doi: 10.1016/j.beth.2011.02.007
- McHugh, R. K., Kertz, J. S., Weiss, B. R., Baskin-Sommers, R. A., Hearon, A. B., & Bjorgvinsson, T. (2014). Changes in distress intolerance and treatment outcome in a partial hospital setting. *Behavior Therapy, 45*(1), 232-240.
- McNally, R. J. (2002). Anxiety sensitivity and panic disorder. *Biological Psychiatry, 52*, 938-946.
- McRae, K., Gross, J. J., Weber, J., Robertson, E. R., Sokol-Hessner, P., Ray, R. D., & Ochsner, K. N. (2012). The development of emotion regulation: An fMRI study of cognitive reappraisal in children, adolescents, and young adults. *Social Cognitive and Affective Neuroscience, 7*, 11-22. doi:10.1093/scan/nsr093
- Mennin, D. S., & Fresco, D. M. (2010). Emotion regulation as an integrative framework for understanding and treating psychopathology. In A. M. Kring, & D. M. Sloan (Eds.), *Emotion regulation in psychopathology: A transdiagnostic approach to etiology and treatment* (pp. 356-379). New York, NY: Guilford.

- Newman, M. G., & Llera, S. J. (2011). A novel theory of experiential avoidance in generalized anxiety disorder: A review and synthesis of research supporting a contrast avoidance model of worry. *Clinical Psychology Review, 31*(3), 371-382.
- Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science, 3*, 400-424.
- Norr, M. A., Oglesby, O. M., Capron, W. D., Raines, M. A., Korte, J. K., & Schmidt, B. N. (2013). Evaluating the unique contribution of intolerance of uncertainty relative to other cognitive vulnerability factors in anxiety psychopathology. *Journal of Affective Disorders, 151*, 136-142.
- Norton, S., Cosco, T., Doyle, F., Done, J., & Sacker, A. (2013). The Hospital Anxiety and Depression Scale: A meta confirmatory factor analysis. *Journal of Psychosomatic Research, 74*(1), 74-81. doi: 10.1016/j.jpsychores.2012.10.010
- Patron, E., Benvenuti, M. S., Favretto, G., Gasparotto, R., & Palomba, D. (2013). Depression and reduced heart rate variability after cardiac surgery: The mediating role of emotion regulation. *Autonomic Neuroscience: Basic and Clinical, 180*, 53-58.
- Pitskel, N. B., Bolling, D. Z., Kaiser, M. D., Crowley, M. J., & Pelfhrey, K. A. (2011). How grossed out are you? The neural bases of emotion regulation from childhood to adolescence. *Developmental Cognitive Neuroscience: A Journal for Cognitive, Affective and Social Developmental Neuroscience, 1*, 324-337. doi:10.1016/j.dcn.2011.03.004
- Potter, P. J. (2007). Breast biopsy and distress: Feasibility of testing a Reiki intervention. *Journal of Holistic Nursing 25*(4), 238-248.
- Ridner, S. H. (2004). Psychological distress: concept analysis. *Journal of Advance Nursing, 45*(5), 536-45.
- Roemer, L., Salters, K., Raffa, S. D., & Orsillo, S. M. (2005). Fear and avoidance of internal experiences in GAD: Preliminary tests of a conceptual model. *Cognitive Therapy and Research, 29*, 71-88.
- Romanelli, J., Fauerbach, J. A., Bush, D. E., & Ziegelstein, R. C. (2002). The significance of depression in older patients after myocardial infarction. *Journal of American Geriatr Society, 50*, 817-22.
- Rudolph, K. D., Troop-Gordon, W., & Granger, D. A. (2010). Peer victimization and aggression: Moderation by individual differences in salivary cortisol and alpha-amylase. *Journal of Abnormal Child Psychology, 38*(6), 843-856.
- Saeed, A. (2013). *Role of internalization, emotion regulation and emotional state in relationship of parental conditional regard and parent adolescents relationship quality* (Unpublished M.Phil dissertation). National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Santucci, A. K., Silk, J. S., Shaw, D. S., Gentzler, A., Fox, N. A., & Kovacs, M. (2008). Vagal tone and temperament as predictors of emotional

- regulation strategies in young children. *Deviant Psychobiology*, 50(3), 205-216.
- Scherer, M., Stanske, B., Scherer, F., Kochen, M. M., & Herrmann-Lingen, C. (2007). Psychological distress in primary care patients with heart failure: A longitudinal study. *British Journal of General Practice*, 57(543), 801-807.
- Schienele, A., Kochel, A., Ebner, F., Reishofer, G., & Schafer, A. (2010). Neural correlates of intolerance of uncertainty. *Neuroscience Letter*, 479, 272-276.
- Schmidt, N. B., Richey, J. A., & Fitzpatrick, K. K. (2006). Discomfort Intolerance: Development of a construct and measure relevant to panic disorder. *Journal of Anxiety Disorders*, 20, 263-280.
- Schmidt, N. B., Richey, J. A., Cromer, K. R., & Buckner, J. D. (2007). Discomfort intolerance: Evaluation of a potential risk factor for anxiety psychopathology. *Behavior Therapy*, 38, 247-255.
- Simons, J. S., & Gaher, R. M. (2005). The distress tolerance scale: development and validation of a self-report measure. *Motivation and Emotion*, 29, 83-102.
- Steptoe, A., & Brydon, L. (2009). Emotional triggering of cardiac events. *Neuroscience Bio Behavior Review*, 33(2), 63-70.
- Strike, P. C., & Steptoe, A. (2003). Systematic review of mental stress-induced myocardial ischaemia. *European Heart Journal*, 24(8), 690-703.
- Sturman, E., & Mongrain, M. (2010). Self-criticism and major depression: An evolutionary perspective. *British Journal of Clinical Psychology*, 44(4), 505-519.
- Tahira, Q. (2014). *Shame, guilt and psychopathology among adolescents: the role of social intolerance* (Unpublished M.Phil Dissertation). National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Watkins, E. R. (2008). Constructive and unconstructive repetitive thought. *Psychological Bulletin*, 134(2), 163-206. doi: <http://dx.doi.org/10.1037/0033-2909.134.2.163>
- Watson, D. (2005). Rethinking the mood and anxiety disorders: A quantitative hierarchical model for DSM-V. *Journal of Abnormal Psychology*, 114, 522-536.
- Wilde, J. (2012). The relationship between frustration intolerance and academic achievement in college. *International Journal of Higher Education*, 1(2), 1-8.
- Williams, D. A., Thompson, J., & Andrews, G. (2013). The impact of psychological distress tolerance in the treatment of depression. *Behaviour Research and Therapy*, 51, 469-475.
- Yu, D. S., Lee, D. T., Woo, J., & Thompson, D. R. (2004). Issues and challenges of instrument translation. *West Journal of Nursing Research*, 26, 307-320.

- Zinchenko, Y., Pervichko, E., & Martynov, A. (2013). Emotional experiences and coping processes in the context of verification of psychosomatic hypotheses in patients. *Procedia Social and Behavioral Sciences*, 86, 47-52. doi: 10.1016/j.sbspro.2013.08.523
- Zvolensky, M. J., & Otto, M. W. (2007). Affective intolerance, sensitivity, and processing: Advances in clinical science. *Behavior Therapy*, 38, 228-233.

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