MODERATING ROLE OF EMOTIONAL REGULATION BETWEEN SOCIAL INTOLERANCE AND PSYCHOLOGICAL DISTRESS AMONG CARDIAC PATIENTS

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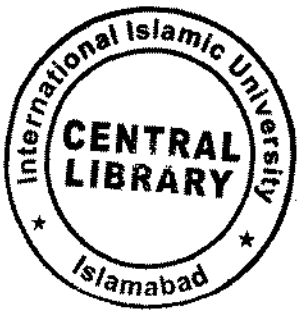

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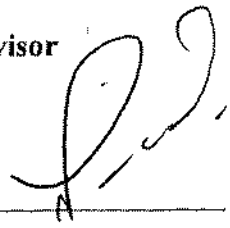

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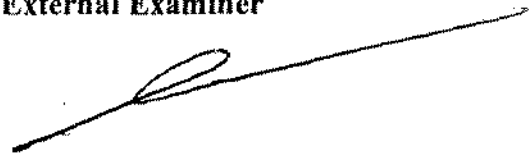

Dean Faculty of Social Sciences

DEDICATION

I would like to like to dedicate my manuscript to my mother and my supporting siblings and everlasting cherished friends as they are sole reason of my quest and inspiration in my life.

CONTENTS

List of Tables

List of Figures

List of Appendix

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I offer my shiest admiration for Almighty Allah, (the most compassionate and charitable) who gave me the strength, enable me to gain knowledge, gave me insight to seek knowledge. Allah almighty gave me strength, encouraged me and gave me resilience for difficult obstacles to complete this task. With that I offer my humblest praise to last prophet Hazrat Muhammad (PBUH), who gave my conscience the heart of faith in Allah.

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ABSTRACT

Social intolerance creates an avoidant and unwilling attitude toward ideas that are dissimilar, leading to emotional dys-regulation and psychological distress. The research investigated the relationship of social intolerance and psychological distress moderated by emotional regulation among cardiac patients. The frustration discomfort scale (Harrington, 2005), emotional regulation questionnaire (Gross & John, 2003) and depression anxiety stress scale (Levibond&Levibond, 1995) were used to assess the social intolerance, emotional regulation and psychological distress among cardiac patients. The research comprised of two phases. Objective of the pilot study (*N*=30)was to find the psychometric properties of the research instruments. The main studyintended to investigate the research objectives on sample (*N*=150)cardiac patients (53.3 % male, 46.7% female) with age range from 20 years to 60 years. The result exemplified that self-report instruments used were internally consistent and reliable. Mean differences were computed for gender, family system, age, cardiac issues, duration of illness, and physical illness on study variables of social intolerance, emotional regulation and psychological distress. Results revealed that maleswere higher on discomfort intolerance and achievement frustration. Femaleswere higher on emotional reappraisal and anxiety. Males were high on expressive suppression and depression. Cardiac patients with nuclear family structure were found to be more discomfort, emotionally intolerant and anxious. Cardiac patientsjoint family structure werefound to be more depressed. Discomfort intolerance, entitlement and emotional intolerance explained a total of 45 % variance in (depression). Discomfortintolerance and achievement frustration explained a total of 35% variance in (anxiety). Discomfortintolerance, emotional intolerance, and achievement frustration explain a total of 53.5 % variance in (emotional reappraisal). Discomfort intolerance, entitlement, emotional intolerance, and achievement

frustration explained total of 51.8 % variance in (expressive suppression). The result of moderating effect of emotional regulation yielded that emotional reappraisal was significant moderator betweenachievement frustration and psychological distress (anxiety), and entitlement and psychological distress (stress). Emotional reappraisal moderated between achievement frustration and psychological distress (anxiety) (β= -.02, $p<.05$, ΔR^2= .030) whereas emotional reappraisal also moderated in the relationship between entitlement and psychological distress (stress) (β= .02, p=.01, ΔR^2= .075). The findings of the current research showed that social intolerance is influential in terms of psychological distress whereas emotional regulation (emotional reappraisal) has moderating effect. The current study has highlighted the role of emotions that play asignificant role in better adaptation and emotional dealing of the cardiac patients in bigoted and inevitable situations.

INTRODUCTION

Chapter-I

INTRODUCTION

Enduring ailments are increasing throughout the world and Pakistan has no exemption in this scenario. Cardiac illnesses persist over the life time, affecting the physical, emotional and social functioning of the individual. In social environment the ability to endure the unexpected and undesirable conditions helps to maintain tolerance in living. The ability of endurance gives each individual the capability to establish better social associations. Social acceptance is considered important for an individual's survival. The emotions associated with the surrounding are affected by individual's manner of thinking and behaving. Healthy positive constructive understanding of emotions helps in better adjustment to antagonistic situations resulting in better social relations and cherished living. Tolerance is trait of stability and serenity and improved emotional pattern enables healthier mental fitness and well-being.

Cardiac issues (heart diseases) are class of group of diseases that include physical disruptive functioning of heart, and blood vessels (that include defects in arteries, capillaries, and small veins in body) (Maton, 1993). It is seen that with cardiac problems some persons have atherosclerosis and hypertension. Chronic glitches of cardiac issues are problems that are longer in time duration and keep persistent, affecting emotional, social, physical functioning of these patients. At the moment, cardiac issues are vastly increasing in diverse cultures regardless of modernization and awareness about diet and fitness. After 1970's the cardiac issue trend is decreasing in high income countries (Mendis et al., 2011; Kwan et al., 2007). Reports have highlighted that Pakistan is under severe health crisis due to increased rate of cardiac patients in Pakistan. This excessively affects poor folks due too unfortunate economic condition. In recent

times, the average life duration of Pakistani inhabitants has declined due to unhealthy diet, lack of health facilities, poor existing situations aggravating the speed of early demise of cardiac patients (Siyal et al., 2014).

85 % Countries having low and middle economic class are facing problem of circulatory ailment. Cardiac patients in Pakistan face main issues of health amenities that include poor dealing and unavailability of recommended precise prescriptions. International countries not solely focus on health issues and health amenities of cardiac patients but also focus on emotional regulation, social tolerance and psychological distress making cardiac patients more vulnerable for cardiac events (Steptoe & Brydon, 2009; Strike & Steptoe, 2003). A great number of hazardous factors make patient vulnerable toward cardiac issues e.g., age, sex, high blood pressure, hyperlipidemia, diabetes mellitus, smoking, alcohol intake, family history, obesity, lack of somatic activity social factors, and pollution (Mcdonald, Hertz, Unger, & Lustik, 2009).

Different types of coronary heart diseases exist, diseases of cardiac muscles, hypertensive heart problem, high blood compression, failure of right side of heart with respiratory system involvement, problem of heart beat, serious heart diseases, and swelling of internal parts of heart. Generally heart issues are categorized into these sub types;

Chronic heart failure. Among cardiac issues Chronic heart failure (CHF) is one of the main cause of death and illness in the United States alone, every year affecting almost 300,000 new patients. Recent data indicated that about 2,000,000 patients are suffering from CHF only in America. The major reason of CHF is attributed to physiological reasons like left ventricular (LV) systolic dysfunction because of hypertension, corona artery disease. Although, recently the incidences of CHF has decreased in some cases of physiological problems e.g., like coronary artery diseases and hypertension. In fact, due to advance treatment procedures being developed

there is an earlier hospital discharge of CHF patients and also increase in survival rates and decreased incident rate of CHF in cardiac population (Rosamond, Flegal, & Furie, 2008).

Heart valve replacement/ bypass issues. New cardiac treatment method has highlighted the total life anticipation and treatment method of heart valve illness and considered to be one of the major community fitness problem (Nkomo et al., 2011; Supino, Borer, Preibisz, & Bornstein, 2006). Going through heart surgery is very stimulating and demanding event of life (Karlsson, Mattsson, Johansson, & Lidell, 2010) however, even after treatment the patient shows symptoms of tiredness, syncope, and tremors. The daily life activities and routine of heart valve disease patients is severely affected and unavoidable (Vahanian et al., 2007). Recently to overcome that disadvantage the only very effective treatment for heart valve was open heart surgery. For that 600 000 coronary artery bypass graft strategies are annually performed in United States costing about $25.3 billion. The most common operation performed each day is 1 cardiac bypass surgery across the world according to the report of American College of Cardiology (ACC) and the American Heart Association Task Force (AHAT) (Eagle, Guyton, & Davidoff, 2004).

Cardio Vascular Diseases (CVD). In 20th century incredible efforts have been made to discover, understand basic underlying mechanisms to understand the link of emotions and mental association for the development of Cardio Vascular Diseases (CVD), specifically which includes Coronary Artery Disease (CAD). In Asia the incidence of Cardio Vascular Diseases (CVD) has exceptionally increased in last years. As the incidence has increased so are the risk factors of psychological nature linked to physical illness also increased (Swenson & Clinch, 2000).

Chronic obstructive pulmonary disease. New discoveries have been made about chronic obstructive pulmonary disease (COPD) among cardiac issues but still the duration and

severity of (COPD) is changeable. Severe worse conditions of diseases like severe exacerbations may prolong total time of stability and require hospitalization for longer duration (Seemungal, 1998). The condition of exacerbation is associated with multiple incidence of breathlessness, acting as contributory factor in developing psychological distress (e.g., stress, and low mood) among COPD patients (Williams, 1989).

Emotional Regulation

Conventionally, a satisfied life, positive view about life, neural way of thinking, positive emotions, are basic strengths to deal with life stressors, positive decision making and competency traits are considered basic elements of psychological health.

The concept of emotional regulation is well-defined as "the processes of envoirmental and inherent nature that are responsible for monitoring, assessing, and adapting human expressive responses, toward one's aims (Santucci et al., 2008). Emotions start evolving from early childhood. Children learn the ability to regulate their feelings according to particular situation, especially undesirable feelings. Factors like temperament, personality, attachment styles, social motivation shape individual's emotional handling in either positive or negative manner (Tucker & Luu, 2007). Emotional mechanism helps to deal with stress full situations of life like physical attack by others, economic complications, chronic health difficulties (Yu, Mobbs, Seymour, & Calder, 2010; Latham & Mason, 2010).

Emotion regulation is also defined as ''procedure that originate, constraining, upholding, moderate the internal feelings and regulate the incidence, strength, or length, and involve regulation of emotional physical, motivational and attention conditions of the individual to help achieve social adoption, biological and behavioral aims" (Eisenberg & Spinard, 2004, p. 338;

Eisenberg, Smith, Sadovsky, & Spinard, 2004). Emotion regulation is dynamic uninterrupted approachable system dealing with nature effectively (Bargh & Williams, 2007; Gross & Thompson, 2007). Both conscious and unconscious processes play role in regulating emotional responses (Bargh & Williams, 2007; Rottenberg, Gross, & Gotlib, 2005) according to appropriate demands of environment (Campbell-Sills & Barlow, 2007; Gratz & Roemer, 2004; Diamond & Aspinwall, 2003).

Campos, Frankel, and Camras (2004) defined emotional regulation as a process of different mechanism of adoption for different action according to different context. Overall all the above stated definitions highlighted multifaceted inner procedures that help in attain goal in sophisticated manner. Emotional regulation mechanism involves complex procedure of concrete operative mental reasoning abilities toward accomplishment of one's goal which become visible in adulthood. Emotion regulation is individual's way of modification of emotional depiction, understanding, and inner procedure and modification of response toward ever-changing social environment (Aldao, 2013).

Existing studies find emotional regulation a basic concept in studies of mental health (Freud, 1959), anxiety and coping (Lazarus & Alfert, 1964), attachment model (Bowlby, 1969), and specially emotive model (Frijda, 1986). Emotional regulation initially gained its recognition as distinct construct in child and adult development studies (Gross & Levenson, 1997).

Rigorous work has been done by different therapists on emotional regulation. Another recent attempt was given in form of Emotion Regulation Therapy (ERT; Mennin & Fresco, 2009) explained the underlying mechanism of emotional regulation processes involved in reducing mental disorders. The ERT model basically is based on philosophies of cognitive behavioral treatment and includes some techniques like social skills training and exposure

procedure and focus on mental, expressive, and social systems which are basic problematic areas of patient. The opposing conflict between normal functioning of society and client's problematic behavior highlight emotional regulatory difficulties that enable to develop appropriate treatment plan in ERT according to the client (Sanislow et al., 2010).

Emotions are basic entity of human life some time serving adaptive function, and some time dysfunctional in different situations. Therefore, emotions are one of the basic factor of self-regulation structure that makes individuals thinking flexible for reacting appropriately to social environment according to personal desired values (Wilson & Murrell, 2004). Gross, and Thompson (2007) highlighted that regulation mechanism creates collaboration between, behavioral and physical systems for better emotional response according to current situation. For that emotional regulation process in two ways according to situation firstly, attention and emotionally silencing the situation labeled as (up-regulation) and focusing of emotional experience is labeled as toning down (dampening) (Gross & Thompson, 2007).

Theoretical Background of Emotional Regulation

Emotional responses unfold over time for that there is difference in different emotional strategies individual uses against social situation (Gross, 2002). The process model is based on concept of emotion-generative development. According to emotion-generative process, emotional processes start from social stimuli and when attention is given after the evaluation, this process generates synchronized response predispositions that are affected by individual's experiential, physical and behavioral structures. Emotional responses are modified in different manners depending on each emotion regulation strategies used (Gross, 2002).

The most recognized and protuberant model of emotion regulation in adult population is Gross (1998a) Process Model. The process model focus on mainly differentiating between two temporal emotional strategies. Firstly, antecedent-focused strategies that lead before actual emotion involvement, and secondly, response-focused strategies that are used in reaction to emotion involvement (Gross, 2002). In emotional regulation process the antecedent-focused strategy function in generative form and create four strategies namely state changes, condition assortment, consideration placement, and mental alteration. This process also refers to mechanism of activation and changes of performance and peripheral physical responding (Gross, 2001). Gross (2002) refer to the term of strategy as emotion regulation procedures are performed undeliberately and automatically, without awareness (Gross, 2002). The selection of these strategies was designated on basis of different features like daily common use and testable individual differences (Gross, 2002). Recently researchers are more focusing on conscious and deliberate use of emotional regulation strategies (Mausss, Bunge, & Gross, 2007).

Gross Process model of emotional regulation. Adults use different level of classified emotional regulation strategies to adopt to social environment and all these classifications are based on theoretical perspective.

The Process model given by Gross (1998) of emotional regulation mainly on two categorical regulatory strategies, cognitive reappraisal and expressive suppression (Gross, 2002; Gross & Thompson, 2007). The emotional regulation strategy by Gross(2001) work in following pattern;

1. Selection of Social Stimuli
2. Alteration Of Situation

3. Attention
4. Cognitive Change
5. Response Inflection

Each individual in social situation reacts emotionally often termed as selection of social situation after selection of specific situation each person try to change their emotional response in order to modify their emotional response called alteration. In attention each individual main focus is on surrounding environment to be sure enough to act according to social requirement. After the process of attention completes individual consciously thinks about the situation and makes decision in optimistic manner to full fill social adjustment requirement called cognitive change. At last individual becomes enable to give response in an appropriate manner to make himself/herself adjustable in social environment called response inflection (Gross & John, 2003). Hence, it is a healthy process to mold and change ones emotions for better adaptability but it also requires practice to solve problems. It has following components;

Cognitive reappraisal. The cognitive reappraisal, often seen in action in initial level of emotion-generative process, is explained as construct that potentially covert emotion-provoking situation into non-emotional emotion and is cognitive alteration process mainly changing the meaning of the event thus referred (reappraisal) (Lazarus & Alfert, 1964). For instance, one individual may perceive interview as embarrassing and the other may perceive as opportunity of proving self-worth. Reappraisal is (antecedent-focused strategy) occurs in initial level, before the full processes of emotion response emerge thus, reappraisal can alter the complete successive feeling course and help in reducing the behavioral response toward negative emotion.

Suppression. In thought process model suppression is often explained as an effort to sidestep the opinions, feelings, and instincts, which are negative in nature. Similarly Gross

(1998) defined suppression is minimization of emotional depiction on social setting. It expresses itself in result of negative judgments, feelings, and in turn affect all our activities. In comparison to reappraisal, suppression comes late in action in emotion generative process and for that its termed as response-focused strategy. This strategy is mainly concerned with response modification of behavioral aspects of emotion.

Strategies of emotional regulation have been tested experimentally. In one experiment, participants were assigned into two groups one of suppression and one of reappraisal on basis of emotional-eliciting movie. The participants in suppression condition were instructed to fleece their emotional reactions to a negative feeling of movie, whereas, those assigned to reappraisal group were allowed to think about the film they were watching and react emotionally as they feel (Gross, 1998). Experiment's finding highlighted that suppression participants had less expressive behavior, but experienced more undesirable feeling. Whereas reappraisal group participants felt less involvement and the social expression of undesirable sentiment (Gross & Levenson, 1997). Other researchers have highlighted that suppression as emotional regulation is more demanding as compared to reappraisal. Suppression has been seen to avoidant in nature and is unable to absorb the relevant information and at end seem mentally distractive (Butler et al., 2003).

In Pakistan there is little research work on emotional regulation in one of the study it was found that parent child interaction in childhood regulates the individual's expressive dimensions in adulthood. The study examined the role of parenting styles on the emotional regulation among teenagers. The results of the study showed that mother authoritative parenting style had positive and permissive parenting style had negative consequence on emotion regulation. Similarly father's authoritative paternal parenting style had positive and paternal permissive parenting

style had negative result on concept of emotion regulation (Jabeen, Anis-ul-Haque, & Riaz, 2013).

Study by Contreras, Kerns, Weimer, Gentzler, and Tomich (2000) on teenagers highlighted that different factors e.g., parental warmth, affection and positive expression have negative relation with externalizing behavioral problems in terms of negative emotion regulation (Eisenberg et al., 2005). Similarly emotional regulation has its significant effect on relational sensitivity in individuals of borderline personality disorder (BPD). In one study result highlighted that negative emotion regulation strategies, facilitated the link between BPD condition and several cognitive irregularities e.g., existence exploration, be in the right place, and self-worth and feeling of unspecified low mood and anxious reaction toward life tasks (Katherine, Dixon-Gordon, Gratz, Breetz, & Tull, 2013).

In recent time the important characteristic that which has received extensive attention in scholarly work is new concept of emotion regulation. Researches have highlighted that reappraisal strategy is method of making optimistic explanations of traumatic condition to reduce feeling of distress (Gross, 1998). According to several treatment model negative reappraisal strategies form basic foundation of depression and anxiety symptoms (Beck, 1976). Recently, behavior therapies of this era (e.g., contemporary CBTs, Acceptance and commitment Therapy, emotion regulation therapy (ERT), mindfulness, and dialectic behavior therapy) highlight emotion regulation difficulties and guide clients about true emotions, and educate them controlling their impulses and emotional acceptance and endorse avoidant responses that help to achieve one's aims (Fresco, Mennin, Heimberg, & Ritter, 2013; Hayes, 2004).

Patients of generalized anxiety disorder utilize multiple maladaptive strategies as compared to adaptive emotion-regulation strategies. These maladaptive strategies result in

inflexible and constrained ways deal with negative event to control, getting fixated and egoistic about the event and decrease these unpleasant emotions by avoiding situations as compared to handle it effectively (Mogg & Bradley, 2005). Due to lack of using emotion reappraisal GAD patients often deal ineffectively to situation in response of e.g., apprehension, cogitation, and self-deprecation (Newman & Llera, 2011; Mennin & Fresco, 2009).

Emotional regulation and Cardiac Issues

In positive methodologies emotions regulation is considered manner of modification that shapes individual's perception and self-explanation and the world, and give directing to our actions and thinking (Mahoney & Granvold, 2005). In field of the cardiology, researches have suggested that individual's emotion-focused managing approaches help in directing patient manage their feelings as result of physical illness, and especially effective in high traumatic and susceptible time of open-heart surgery and discharge from hospital after surgery (Ben-Zur, Rappaport, Ammar, & Uretzky, 2000).

Emotion-focused approaches can be more effective when patients are dealing with persistent conditions that leave and long lasting dangerous results of cardiac condition on our body, as these strategies based help individual accept reality as compared to problem-focused strategies which mainly deal with modification of condition for less tome period (Lowe, Norman, & Bennett, 2000). Research have highlighted that emotional regulation helps to understand the basic physical components and maturing of the physiological functions of central and autonomic nervous system (ANS) give rise to disturbed expressive and social regulation. Emotions are basic underlying mechanism for patient suffering from cardiac issues as physical conditions create emotional problem among chronic ill patients and this trend is gaining fame in

recent time in cardiac field. The physiological state is thus enhanced improved by emotional positivity of cardiac conditions (Rudolph, Troop-Gordon, & Granger, 2010).

Social Intolerance

Life is full of difficulties and frustrating situation but with the passage of time each individual learns to adjust to these situations. Social situation demands and hectic life schedule and life disturbances are reason of creating social intolerance, but rules and regulations directions make that frustration more unbearable. After diagnosis cardiac patients experience lifestyle changes, the management of these life style changes makes patient social intolerant and some patients manage to face their problem and achieve health. Social intolerance increase as the strength, length, expectedness mechanism of social frustration increase (Cohen & Weinstein, 1981).

Idea of social intolerance dates back to social and cognitive models emergence when these models attempted to explain emotional problem among individual. The concept of social intolerance is often well-defined as narrowness and inability to tolerate ideas of particular culture and inability to accept other's point of view (Buhr & Dugas, 2002). Main characteristics of social intolerance are avoidance of social situation where not accepted and reluctance to see reality. The factor of social intolerance is essential part of obscurantism (Dugas, Gosselin, & Landouceur, 2001). Different view have been given in defining social intolerance Dugas, Schwarzt, and Francis (2004) defined social intolerance as mental unfairness affecting individuals way of perception, understanding, and reactions to un-accepted situations on three levels e.g., mental, expressive, and social of individuals processes (Dugas et al., 2004). Predictive ideas about experience about negative events, ideas about uncertainty to be negative in

nature affect emotional state of person, avoid most situations and last develop problem in daily functioning are all sign of high social intolerance (Buhr & Dugas, 2002).

Social intolerance is also defined as a condition which emerges when the individual is constrained to achieve some personal goals (Tucker & Luu, 2007). Irritated desires or unsettled difficulties lead to social intolerance. Smaller the goal achievement and excitement lesser will be social intolerance as more the excitement and thwarted from goal greater the social intolerance and crease feeling of helplessness, despair, and nervousness. Social intolerance is simple inability to admit difference between want and truth (Tucker & Luu, 2007).

Recent scientific growth in the field research and information have highlighted that areas of individual's life which were once ignored. Each individual faces problems in daily living from house to official work as fast paces of human life requires every day changes and different demands which are posed from the surrounding setting. As these demands and pressure increase individuals ability to cope with these daily life stress also get intolerant (Jibeen, 2013) Other researcher's Rahman and Dawood (2009) highlighted that social, and frustration bigotry or ability of low frustration lenience, create emotional problems, the ability of tolerance is an inborn tendency but these tendencies can be learned from the environment for appropriate behavior. For that, Wessler and Wessler (1980) defined social intolerance from philosophical point of view, and social intolerance demonstrates it-self in form of annoyance, rage, self-indulgence, fright, and other psychopathological problems.

Frustration intolerance is expression of social intolerance often explained as low ability to tolerance frustration, trouble of uneasiness. The social intolerance is largely considered main class of ridiculous believes that have its strong link to individual's self-worth. Another researcher De Botton (2000) described social intolerance as the conflict with desire and hopes that have no

determined realism. Other researcher's Martin and Dahlen (2004) have highlighted that importance in light of social intolerance and indicated that LFT (Low Frustration Tolerance) is strongly linked with irrational credibility and highly linked with anger. Leyro, Zvolensky and Bernstein (2010) shown that the declared inability to tolerate traumatic state is indicative of severe psychological problems. LFT is form of social intolerance grounded on a disavowal to accept the difference among desire and practicality.

Ellis (1987) in theoretical background of REBT recommended that the social intolerance is inability to cope with commotion and uneasiness is a core feature of psychological problems. The frustration intolerance in REBT historical literature is mainly defined as opinions of evasion of life problem, fulfillment of goals suddenly and also inability to tolerance unacceptable feelings (Dryden & Gordon, 1993). Therefore, critical view suggested that one way of perceiving the link of beliefs which are irrational in nature create psychological disorders and REBT main focus is solve this matter. Comparatively to REBT, the basic core of Cognitive Therapy is to recognize the thought content in psychological disorders (Beck, 1976). According to REBT model there is a need to develop a multidimensional model that can comprehend the relationship of content and organization in frustration intolerance opinions (Neenan & Dryden, 1999). So present study will be a landmark for future researchers in this regard.

Dimensions of Frustration Discomfort Scale (FDS)

Frustration intolerance is a core concept in REBT theory but the detail structure of its link and relationship of the content and feature is still need to be elaborated. To fulfill this shortcoming a multidimensional structure in form of the Frustration Discomfort Scale (FDS), was established the basic structures of FDS are based on REBT literature and philosophy

(Harrington, 2006). Initially four dimensions in Frustration-Discomfort Scale emerged as basic structure component (Harrington, 2005) as follow;

Discomfort intolerance. The sub-scale of discomfort intolerance involves intolerance of life problems and disturbances. The discomfort intolerance is also apparent incapability to endure upsetting condition and this sub-scale have seen to predominately lead to irrational beliefs about frustration situation (Leyro et al., 2010). This reaction is often come in prominence of inability to deal with life problematic situation.

Entitlement. The Sub-scale of entitlement mainly works on immediate gratification on follows rules of fair demand. Individual of entitlement have need for desire fulfillment, and desires should be fulfilled without any obstacles and frustrated feelings. As this dimensions is related to desire accomplishment this dimension if not fulfilled create anger in individuals.

Emotional intolerance. This sub-scale is also labeled as intolerance of expressive anguish. The sub-scale of expressive intolerance focusing on beliefs of quick relief of emotional distress feelings which are unbearable and thus in muse be avoided if create unease feelings. The model of REBT emphasize role of emotional intolerance from long duration. The dimension of emotional intolerance plays its significant role in development of anxiety features.

Achievement frustration. As name implies this sub-scale involve inability to tolerance when achievable goals are thwarted. The individuals high on this subscale have perfectionist traits with high standard and scrupulousness tendency toward life goals. The achievement sub-scale focus on demands in spite being having certain favoritism, these demands are based on high standard and feel in tolerated when these standards are not attained.

Literature suggested that the tendency to deal with frustrating situation depend on balance between frustrating situation and determination toward attainment of goals. This tendency has

been observed in both adult and children population (Gilmore, Ziviani, Sakzewski, Shields, & Boyd, 2010). The ability of independence and kinship are considered basic components of handling frustrating situation. Studies in physical structural findings have indicated higher physiological responses in salivary measures of the hypothalamic-pituitary-adrenal region of brain and the autonomic nervous system when dealing with frustrating situation and also indicate management responses (Rudolph et al., 2010; Lopez-Duran, Olson, Hajal, Felt, & Vazquez, 2009). Investigation of method of dealing with frustration is indicative of individual's faulty behavior and method of handling these situations. The therapeutic session focuses on educating patients about their emotion and skills of emotional tolerance that are important for handling stress (Morris, Kathawala, & Leen, 2010).

Extreme use of entitlement dimension of frustration intolerance creates maladaptive beliefs leading to mal-adaptive behaviors. An educational study explored that high-level of entitlement about positive outcome in students lead to negative consequences in student educational performance. Higher entitlement especially student of challenging class had link with poor GPA marks (Anderson, Halberstadt, & Aitken, 2013; Harrington, 2005). Studies on frustration intolerance have found link of higher frustration intolerance and higher mental breakdown, problem in adjustment and is linked to issues in problems in social relations. High frustration intolerance is found to be associated with antisocial characteristics, neuroticism and psychoticism. Also in comparison to females males were found to be higher in frustration intolerance (Berkner, He, & Cataldi, 2002).

The dimension of discomfort intolerance (DI) has been explored in number of psychological problems. Several studies have also observed improvement in distress intolerance after therapeutic treatment. In pre-post studies the decrease in DI after therapeutic treatment DI

was found to be linked with lower depressive and anxiety symptoms among psychological patient. Thus, study highlighted important role of DI in the establishment and treatment of depression and nervousness (McHugh et al., 2014). Frustration intolerance is focus on personal preferences and feels frustration when faced with reality, and deny the acceptance of the difference between a partiality and realism (Ellis & Dryden, 1987). Individual demand favorite situation fulfillment without any hazards and if faced thus feel frustrated (Ellis, 1995). Such fantasize situations and frustration intolerance are found in many college students. Studies have shown link of frustration intolerance and high level of deferment in educational setting (Harrington, 2005), and also high level of depression, anxiety, and irritation in psychological sample (Wilde, 2012; Harrington, 2006).

Psychological Distress

Generally, psychological distress is often well-defined as state of expressive distressed, strain, misperception, despair and disturbance. The most used theoretical description of psychological distress was elaborated in Potter (2007) comprehensive work as an emotional mental and social reaction to future problems that are dangerous in it content and these situation are faced by experience of anxious, despair and strain. In recent time comprehensive work has been carried out toward developing detail understanding of the basic etiology of concern, depression and strain problems. Psychological distress is other places is elaborated as emotional condition considered by expression of different psychological symptoms of depression in which individual experience loss of interest in life events and feel low and have negative anticipation about future in form of desperateness. The other characteristics of psychological distress are elaborated as expression of anxious feeling restlessness and feeling tensed and stressed out

(Mirowsky & Ross, 2002). Psychological distress symptoms result in bodily signs in form of lack of sleep, insomnia, annoyances and deficiency of vigor.

According to tenants of the psychological stress model this condition result from experience of worrying occasion that in some way lurks individual's bodily or psychological wellbeing, and lack of coping ability lead to emotional chaos that results from this ineffective coping (Horwitz, 2007; Ridner, 2004). Style of effective coping strategies help to distinguish feeling of psychological distress and make distress feeling disappear (Ridner, 2004). Psychological distress in not just a condition psychological distress is regarded as an expressive disturbance that not only affects the individual's but his communal functioning and effect everyday manner of existing (Wheaton, 2007).

Psychological distress in another definition is clinical setting is defined as a unpleasant feeling of multifactor nature that include mental, social, expressive, and/or spiritual experiences. These experiences are interrelated and affect an individual ability to deal effectively with different physical ailments and, unable to deal with the bodily changes and have problem in compliance with the medical treatment (National Comprehensive Cancer Network, Guidelines Version 3, 2012, DIS-2). The feeling of psychological distress keep persistent for long period and with diverse manner of expression, these feelings range from different feelings of susceptibility, normal low feeling with anticipated fears of life crisis.

Nonetheless, these difficulties can also disable individual in form of severe psychological problem like unhappiness, nervousness which are accompanied with panic feeling, social separation, and mystical disaster. Another researcher Lerutla (2000) elaborated the concept of psychological distress and defined psychological distress as a condition that have emotional

component and these feeling emerge when individual's need to deal with life threatening, problematic and, annoying situations.

Theories of psychological distress have provided evidence those emotional influences of shared and unique nature has their influence on psychological distress development. Different, theorists in the past have confirmed the possible link of psychological distress with specific cognitive features that develop and maintain the existence of mental anguish (Brown & Barlow, 2009; Torkington, 1991).

World health organization (WHO) have highlighted the importance of early identification, dealing of corporeal, psycho-social and mystical matters in chronic patient because of higher occurrence of psychological distress (e.g., depression, anxiety and desperate jeopardies) among chronically ill patients (WHO, 2002).

Models of Psychological Distress

Different model in the past decade have been given by different theorist about psychological highlighting different view about the development and ethology of psychological distress. These theoretic viewpoints of psychological distress are described below:

Medical model. The most prevailing model that elaborate the basic etiology and basic components of psychological distress is medical model (Novello, 1999; Kaplan & Sadock, 1998). Medical model focus on defining psychological distress which suit in best term used by most of the physicians. As like any other medical ailment psychological distress is also considered as a medical disease in medical model. According, to medical model the psychological distress account to defect in nerve problem that is accountable for the problems like disorganized rational and disorganized behavior, these problems can be resolved if

medically treated and medical care is taken from precaution point of view (Rydahl-Hansen, 2005; Lawton, 2000).

Bio-psychosocial model. The Bio-psychosocial classical of physical illness focus on medical problems and also consider the role of psychological, social role in physical illness. This model emphasize the interrelated role of environment, genes and behavior in physical problem's thus, assimilating bodily, mental, and social ethnic view about chronic illness. Although not ignoring the role of medical factors this model also emphasis the role of mental factors (opinions, feelings, and actions) and social view's existing in particular culture about chronic illnesses (Rydahl-Hansen, 2005; Heckman, 2003).

Interpersonal model. Focus on social interaction and problems in manner of pattern of relational communication are main focus of interpersonal model (Carson et al., 1996). The interpersonal model consider individual as communal human beings, our identity is recognized as result of our relation with people in society. According to interpersonal model the feeling of psychological distress is result of inacceptable relations of past with parent and present in marital relationship. After individual goes through adverse situations in relationship the individual suffer from psychological distress which is defined as maladaptive performance. After the different interactive pattern in intimate relationship is observed in individuals then psychological distress is recognized and different treatment methods are suggested.

Psychodynamic model. The most long-standing and comprehensive model about psychological distress is psychoanalytic model that looks at Psychological distress as result of intra-psychic conflicts. These intra-psychic conflicts result from the effect of comatose processes and method of dealing with stress in form of protection mechanisms that help to shape the normal and irregular behavior of the individual's. This model hold the preposition present

individual's personality modification is mainly determined by the childhood experiences. The expression of emotion experienced in present is reflection of past problems (Box, 1998; St. Clair, 1996).

Cognitive model. Cognitive model, hold the preposition that negative thinking processes and egocentrism about life view is basic reason behind development of psychological distress (Barlow & Durand, 1999). According to cognitive model the distressed individual perceive their existence, surrounding in negative manner and have disappointing and view about future and anticipate that the life will end in disaster (Weinrach, 1988). Depressed individuals' perceive themselves as valueless, insufficient, hate able and incomplete. Misinterpretation of life experiences in negative manner lead to disorganized behavior and disturbed emotions. According to cognitive model the distress continues in circle when the emotions are perceived to be threatening without existing evidence, and the manner of negative perception effect feelings and behavior.

Diverse psychological and social areas play role in the development of coronary heart disease (CHD). These factors in turn also increase the disease intensity and death rate of CHD patients. The effect of psychological distress is increased by physical and economic problems in CHD patients. Study by (Black, 1998) explored the efficiency of different psychological interferences provided to coronary artery bypass grafting entering, and chest pain patients. Findings of study highlighted that therapeutic interferences decrease depressive symptoms in CHD patients. Study by Soares and Grossi (2000) explored the link between self-esteem (SE), and psychological distress and pain, apparent incapacity and coping styles in medical patients. Self-esteem was negatively linked with psychological distress (e.g., depression and anxiety) and

positively linked with pain strength and vigorous coping. The lower depression strengthened the Self- esteem and strength to handle pain (Soares & Grossi, 2000).

It is seen that different demographic features and different life issues upsurge the features of mental distress and anxiety in cardiac patients. In case of age, cardiac patients with higher age have been found to be linked with greater levels distress i.e., anxiety and depression (Liao, Chen, Chen, & Chen, 2008; Novy, Price, Huynh, & Schuertz, 2001). Similarly, other studies on contrary highlighted that young women particularly suffer from higher level of depression, anxiety and stress feelings (Steffens, Wright, Hester, & Andrykowski, 2011; Chen et al., 1996; Seckel & Birney, 1996).

One research examined the link of lower socioeconomic class and higher vulnerability of psychological distress in cardiac patients over the course of twelve years of illness. Outcome of study highlighted that, 11% of the patient's experienced at least single episode of higher distress feeling in period of 12 years. Cardiac patients of low-income group were at more risk of experiencing psychological distress. As far as gender is concerned females suffered from more psychological distress as equated to male patients (Orpana, Lemyre, & Gravel, 2009).

Psychological Distress and Cardiac Issues

Medical and personal social problems are linked with the distraught living of chronically-ill patients. Researchers have highlighted the importance to attend bodily as well as psychological indications (Breitbart, Lederberg, Rueda-Lara, & Alici, 2009). Researchers have highlighted that due to lack of knowledge of linked psychological issues with a medical illness most of the professional doctors pay less attention to this perspective (Rydahl-Hansen, 2005; Heckman, 2003).

In another study the incidence rate of psychological distress was explored among heart failure patients (Scherer, 2007). Depression was found to be present in15% to 36% patients with heart failure. Anxiety was found to be present in 29–45% of heart failure patients. Different appearances of these symptoms have different effects on cardiac heart failure patient's (Friedmann, Thomas, & Liu, 2006). The psychological distress was explored in cardiac patient's using, Hospital Anxiety and Depression Scale (HADS). The depressive and anxious feelings were strongly prominent in cardiac patient's (Evangelista, Ter-Galstanyan, Mougharabi, & Moser, 2009).

There is consistent evidence that depression is an important and independent risk factor for the onset, the adverse course and outcomes in patients with coronary heart disease (CHD) (Carney, Freedland, & Veith, 2005; Wulsin & Singal, 2003). Specifically, it has been reported that depressive symptoms are associated with roughly a 60% greater likelihood of exhibiting CHD (Wulsin & Singal, 2003). Moreover, patients with depression are at greater risk to have a major cardiac event within 12 months of the diagnosis of CHD (Carney et al., 1988). It has also been documented that depression is a risk factor for cardiac morbidity and/or mortality in patients who had undergone cardiac surgery (Lespérance, Frasure-Smith, Juneau, & Theroux, 2000).

Patients of incurable cardiac issues going through diverse treatment methods are correlated with psychological suffering. The results of the study highlighted that patient had higher level of personal bodily indications and disturbance in daily activities with higher level of depressive feelings in total duration of illness (Zipfel et al., 1997). The concept of psychological distress and mental indications (e.g., nervousness, despair and stress) are main focus in recent time because of higher incidence rate among cardiac patient's. Often, these highlighted

symptoms are deserted, go un-diagnosed and thus no inadequate treatment method are used that can adversely affect the minimum time duration of recovery and life styles of cardiac patient's(Yu et al., 2004).

Number of studies have highlighted possible link of psychological symptoms (e.g., anxiety and depression) among admitted heart patients. It was found that psychological distress leads to poor control on symptoms and daily functional ability (Mayou et al., 2000). Irrespective, of the cardiac issue sternness, these symptoms are also associated with multiple readmission in hospital, decline in excellence of lifetime, and more transience among heart patients (Romanelli, Fauerbach, Bush, & Ziegelstein, 2002).

The study by Norton, Sacker, Young and Done (2012) highlighted that during the 10 years of illness high rate of depressive feelings are prominent in cardiac patients. Psychological distress was also linked with high personal appraisal of body state (e.g., more signs of pain). Additional study by Jiang (2008) found that depression increases heart diseases and secondly, also increases poor prediction in heart failure patients. Another feature of mental stress plays it's significant role in increasing depression, also increases the death rate among cardiac patients. The therapeutic treatment helps to reduce the depressive symptoms among patients (Jiang, 2008).

In recent time the heart transplantation is well recognized procedure for treatment of incurable heart catastrophe. Though, lack of donor organs required for heart transplantation increase the waiting period till surgery to complete. Studies across different section and survey have found high rate of psychological suffering during waiting period of organ availability. The patients were found to be significantly higher in personal bodily signs, disruption in daily activities and higher depressive feelings in, short time period of treatment. These outcomes

highlighted the need of supportive psychotherapy necessary for psychological complaints of patient going through heart transplantation procedure (Mughal et al., 2011).

One of the study examined the effects of an 8-week psycho-educational intervention on depression, anxiety, quality of life, and medical outcomes in patients with Chronic heart failure (CHF). The intervention included teaching skills based on Mindfulness Based Stress Reduction (MBSR) plus education on improving coping skills that included better social support for living with heart failure, (Kennedy, Abbott, & Rosenberg, 2002). An 8-week mindfulness-based psycho-educational intervention reduced anxiety and depression; this effect was attenuated at 1 year. Importantly, the intervention led to significantly better symptoms of CHF at 12 months compared to control subjects (Sullivan & Hawthorne, 2009). Previous studies suggest that these program components can positively affect and are helpful in coping with stress, pain, anxiety, and depression in chronic illnesses (Grossman, Niemann, & Schmidt, 2004).

Despite the effectiveness of an implantable cardioverter defibrillator (ICD), its implantation and concomitant therapies, including shocks, can induce psychological distress in patients. Depression has been observed in approximately 30% of ICD patients, and shocks may contribute to the persistence of depression. Anxiety is common, with reports of 24–87% of ICD patients experiencing symptoms of anxiety after implantation. However, the severity of an underlying disease or comorbidities, poor social support, or ICD specific problems such as younger age at implantation, frequent shocks, and a poor understanding of the therapy may increase anxiety and depressive symptoms in ICD patients (Shiga, Suzuki, & Nishimura, 2013).

Cardiac issues and gender. Coronary Artery Disease (CAD) is the leading cause of death among women in industrial countries. One in nine women, 45 to 64 years of age, develops symptoms of cardiovascular disease according to the National Center for Health Statistics

(2010). After the age of 65, the proportion increases to one in three women. Despite the obvious predominance of coronary heart disease in middle aged men, cardiovascular diseases including coronary heart disease and cerebrovascular accidents are currently the major causes of death in women. Before menopause, coronary heart disease is infrequent which suggests that female hormone and metabolism offer protection (Cheema, Ashraf, Rasool, & Tirmizey, 2007). In present study the early and late age group from twenty to sixty will be studied. The selected age criterion was decided after review of literature review of cardiac patients (Sharma & Kandpal, 2014).

Social Intolerance, Psychological Distress, and Emotional Regulation

Social intolerance has been conceptualized as a cognitive bias that influences how individuals perceive, interpret, and react to social situations (Dugas et al., 2004). Entitlement has relation with anger, emotional intolerance with anxiety, and discomfort intolerance with depressed mood. Emotional Intolerance also emerged as strong predictor of depression, whilst achievement frustration subscale of social intolerance had a negative link with depression (Harrington, 2006). Result of the study showed that Cognitive Behavior Group Therapy (CBGT) led to significant improvements in symptoms of psychological distress, anxiety and depression, as well as reductions in social intolerance. Similar researches have also shown favorable results among patients with cardiac problems (Mahoney & McEvoy, 2011).

The theoretical link between psychological distress and social intolerance suggests that intolerance could augment the negative impact of stressors on distress levels. Consistent with a diathesis-stress model, an article examined the interactive effect of intolerance and daily hassles on distress symptoms e.g., anxiety, depression and stress. Findings indicated that intolerance

e.g., distress intolerance, and emotional intolerance had positive relation between daily hassles and depression and anxiety symptoms in such a way that daily hassles increased anxiety, depression and stress symptoms among individuals with high intolerance but not those with low social intolerance (Chen & Hong, 2010). Intolerance is a cognitive vulnerability factor associated with a wide range of psychological distress e.g., anxiety psychopathology. Other cognitive vulnerabilities such as anxiety sensitivity (AS), distress tolerance (DT), and discomfort intolerance (DI) have also been investigated in a study as constructs of interest across psychological distress. Discomfort intolerance was significantly associated with anxiety symptoms in all analyses, even when accounting for other trans-diagnostic risk variables (Norr et al., 2013).

Another study was carried out to explore the influence of experiential avoidance (EA) as a core mechanism in the development and maintenance of psychological distress, disruption of pleasant activity. The result of study highlighted that experiential avoidance (EA) completely mediated the effects of two emotion regulation strategies (i.e., reappraisal and suppression) and was associated with diminished daily positive affective experiences and healthy life appraisals. For that, emotional regulation has proved to be useful in improving understanding of the etiology, phenomenology, and treatment of psychological distress conditions (Kashdan, Barrios, Forsyth, & Steger, 2006).

People differ in their implicit beliefs about emotions. Emotions are fixed or alter according to situation. The result of another study suggested individuals implicit beliefs (emotion regulation) strategies have important consequences on well-being and psychological distress (Castella et al, 2013). Whereas, Garnefski, Baan, and Kraaij (2005) focused on the relationship between emotion regulation strategies (e.g., reappraisal and suppression) and psychological

distress. It was highlighted that there is positive relationships between psychological distress (anxiety, depression and stress) and self-blame, rumination and planning. Negative relationships were found between psychological distress and positive refocusing and positive cognitive reappraisal of emotional regulation. Many studies were carried out to examine the effect of emotion regulation on depression which are observed after cardiac surgery (Patron, Benvenuti, Favretto, Gasparotto, & Palomba, 2013).

Reappraisal is a powerful and flexible regulation strategy that involves changing how one thinks about an emotional stimulus so as to alter one's emotional response to it. Although prior work has examined reappraisal in limited age groups (Carthy, Horesh, Apter, Edge, & Gross, 2010). The study by (McRae et al., 2012) examined reappraisal ability in a broad adolescent age range. Two types of evidence suggest that over the course age development, individuals become more frequent and effective reappraisers in adult age as compare to early age (Garnefski & Kraaij, 2006). Second, behavioral and neural markers of cognitive control processes used in reappraisal improve as the individual get mature (Luna, Padmanabhan, & O'Hearn, 2010).

Psychological interventions for cardiac patients have focused mainly on depressive and anxiety symptoms in hospital setting (Gary, Dunbar, Higgins, Musselman, & Smith, 2010). Outcome of the study showed that 30.0% of the patients showed at least one depressive or anxiety disorder: more specifically, 5.6% of the patients showed one or more depressive disorders, 18.8% showed one or more anxiety disorders, and 5.6% showed comorbidity of depressive and anxiety disorders (Chiavarino et al., 2012).

Although there is considerable evidence that on average adolescents experience more extreme affect (both positive and negative) and more variable mood states in their everyday lives than do their adult counterparts. First, the research to date has been contradictory findings with

regard to whether age-related differences in emotional responsively are linear, and found emotionality being highest in children and tapering in adolescents (Carthy et al., 2010) with emotional mechanism being highest in adult age (Casey et al., 2010; Casey, Getz, & Galvan, 2008; Silk, Steinberg, & Morris, 2003). Although prior work has examined reappraisal in limited age groups (Carthy et al., 2010; Le´vesque et al., 2004), only one other study (McRae et al., 2012) has examined reappraisal ability in a broad adolescent age range. Evidence suggest that over the course of child and adolescent development, individuals become more frequent and effective reappraisers (Pitskel, Bolling, Kaiser, Crowley, & Pelphrey, 2011).

Successful emotion regulation (better emotional reappraisal) is associated with good health outcomes, and improved well-being and better relationships. Conversely, difficulties with emotion regulation higher suppression associated with mental disorders (Mennin & Farach, 2007; Berenbaum et al., 2003) including major depressive disorder (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Rottenberg et al., 2005), bipolar disorder (Johnson, & Fredrickson, 2005), generalized anxiety disorder (GAD; Mennin et al., 2007). These researches adopted various some form of emotion regulation training, including dialectical behavioral therapy, emotion focused therapy (Greenberg, 2002), acceptance- and mindfulness-based therapy (Roemer, Orsillo, & Salters-Pedneault, 2008), and emotion-regulation of reappraisal therapy into therapeutic interventions to improve psychological symptoms (Mennin & Fresco, 2009).

In recent years, depression has been directly associated with poor emotion regulation (Gross & Muñoz, 1995), especially excessive emotion suppression (Ehring, Tuschen-Caffier, Schnülle, Fischer, & Gross, 2010), and personality issues, increased risk of cardiac morbidity and/or mortality. Despite its beneficial effects upon pain and reduced function, recovery following cardiac issues may be associated with reduced psychological and physical functioning

as long as 1 year following surgery (Grossi, Perski, Feleke, & Jacobson, 1998). The first few weeks of recovery are particularly stressful. Patients report considerable anxiety, depression and anger (Gilliss, Gortner, Shinn, & Tompkins, 1993). In recent years, emotion regulation has been targeted as a core process in research and treatment of psychopathology (Kring & Sloan, 2010; Mennin & Fresco, 2010; Mennin & Farach, 2007). This emphasis follows early suggestions that emotion regulation has implications for mental health (Gross & Muñoz, 1995) and builds on existing models of pathology that emphasize responses to emotion (Campbell-Sills & Barlow, 2007). Evidence indicates that depression is characterized not only by abnormal emotion experience (e.g., low positive affect and high negative affects) but also by using maladaptive emotion regulation strategies.

The evidence that emotion dys-regulation plays an important role in depression is accumulating quickly (Aldao, Nolen-Hoeksema, & Schweizer, 2010). In nonclinical samples, psychological distress are associated with the chronic use of expressive suppression and non-use of reappraisal (John & Gross, 2007; Gross & John, 2003). In a clinical sample, Campbell-Sills, Barlow, Brown and Hofmann (2006) demonstrated that relative to healthy controls, depressed individuals employ more expressive suppression in response to negative emotion. Deploying rumination in response to negative emotion prospectively predicts the onset, duration, and recurrence of depressive episodes (Nolen-Hoeksema et al., 2008). Such emotion regulation difficulties are evident even after depression remission (Ehring, Fischer, Schnülle, Bösterling, & Tuschen-Caffier, 2008), including overuse of suppression despite its usual ineffectiveness for regulating sadness (Ehring et al., 2010). Kovacs, Joormann and Gotlib (2008) have suggested that emotion regulation deficits play a central role in the development of depression risk.

Tahira(2013) aimed to explore social intolerance in the relationship between shame, guilt and psychopathology in adolescents. Results revealed significant positive correlation between components of social intolerance and internalizing psychopathology and externalizing psychopathology. Comparison across demographic demonstrated that female has high mean on shame and psychopathology as compare to their male counterparts. Adolescents from second year appeared high at social intolerance, and psychopathology. Findings of model testing suggested mediating role of shame and guilt in the relationship between the latent construct of social intolerance and psychopathology. It was concluded that social intolerance is an important predictor of psychopathology and the effect is mediated through shame and guilt.

The morbidity of Chronic Heart Failure (CHF) includes not only physical symptoms but also significant psychological distress, including anxiety and depression, due to changes in functional level, work status, and relationships (Bosworth, 2004; MacMahon & Lip, 2002; Moser & Worster, 2000). Studies have demonstrated that significant depression in CHF is common, with prevalence rates ranging from 24% to 39%, and is related to a higher risk of functional decline (MacMahon & Lip, 2002; Vaccarino, Kasl, & Abramson, 2001). Many studies have shown depression to be an important risk factor for morbidity and mortality, independent of physiologic measures of disease severity (Westlake, Dracup, & Fonarow, 2005; Jiang, 2004). Significant depression is related to a 2.5-fold increase in mortality at 3 months and a 3-fold increase in re-hospitalization at 1 year, among hospitalized patients with CHF (Jiang, 2004).

Study by Ansa, Abasiubong, Agbulu, and Edet (2010) explored the incidence of psychological distress and other related variables in cardiac patients. The outcome of the study indicated that 16 % cardiac patient's experienced anxiety, 13 % experienced depression and 39% had co-morbidity of both anxiety and depression. The possible link of psychological distress and

age was also explored and indicated that these symptoms were more common in patients of younger age (e.g., > 50 years). Depression is most commonly associated feature in Chronic heart failure (CHF) patient's. Summarily other features e.g., lack of emotional expression, fatigue feelings, poor perception about health, living solitary (not in joint family) were found to be high correlates of psychological distress among patients with heart issues (Yu et al., 2004; Pedersen, Middle, & Larsen, 2002).

Emotion regulation has been defined as the ability to monitor, understand, and accept emotions, and to engage in goal-directed behavior when emotionally activated (Roemer et al., 2008). Emotional regulation is considered protective factor against depression. It has been emphasized the problems in emotion regulation in depression that might be alleviated by adaptive social support processes, but if an individual's emotion regulation is susceptible to interpersonal influences, maladaptive social interactions could contribute to dys-regulation and pathology (Marroquín, 2011). The present study will examine the relationships between anxiety symptoms and emotional reactivity and intolerance. It is generally observed that emotional reactivity is a salient feature of generalized anxiety symptoms, whereas emotional tolerance is more strongly related to social anxiety symptoms (Macatee & Cougle, 2013).

Discomfort Intolerance (component of social intolerance) refers to the perceived ability to experience and withstand negative emotional states. The relationship between psychological distress tolerance and depression, and impact of social intolerance on treatment adherence and outcome following an internet based cognitive behavioural therapy (iCBT) program for depression (the Sadness Program) was studied. Results showed that the Sadness Program was effective in reducing depression symptoms and in increasing distress tolerance (Williams, Thompson, & Andrews, 2013).

Members of stigmatized groups are at increased risk for mental health problems, and recent research has suggested that emotion dysregulation may be one mechanism explaining the stigma-distress association. Stigmatized respondents engaged in significantly more rumination and suppression and reported more psychological distress (Hatzenbuehler, Dovidio, Nolen-Hoeksema, & Phills, 2009). The relationship of mindfulness with psychological well-being and psychological distress was assessed the role of self-regulation and autonomy as mediating variables was explored in a study. Mindfulness was negatively and highly correlated with psychological distress and was positively and highly correlated with psychological well-being. Autonomy was mediated relationships of mindfulness with psychological wellbeing and psychological distress, whereas, self-regulation was mediated only the relationship between mindfulness and psychological well-being (Parto & Besharat, 2011).

It has been identified that through behavioral and physiological pathways, particular negative emotions and cognitions may increase cardiac vascular diseases threat, while optimistic emotions and cognitions may correspond to resilient; health protective factors (Linda, 2004). It is clinically significant in patient with Cardio Vascular Diseases to diagnose the psychological profile and treat emotional condition that presents an increase threat to difficult cardiovascular events (Germani, Proietti, & Janeway, 2011). Cardio Vascular Diseases has an enduring impact on both physical and psychological condition and emotional regulation and quality of life. The occurrence of Cardio Vascular Diseases seems to contribute to risk for various psychological problems, particularly depression, anxiety, and stress (Germani et al., 2011).

The relationships between six emotion-regulation strategies (acceptance, avoidance, problem solving, reappraisal, rumination, and suppression) and symptoms of four psychopathologies (anxiety, depression, eating, and substance-related disorders) were explored.

Results indicated rumination contribution greatest in developing pathology. Whereas avoidance, problem solving, and suppression had medium contribution in development of pathology. Reappraisal and acceptance had minimum contribution in psychopathology (Aldao et al., 2010). In present study the emotional reappraisal and expressive suppression role in contribution of pathology will only be investigated.

Rationale of Study

Emotions and state of mind is core piece of life. Everyone cherish the time in the company of closed ones and feels wretched at departure. This helps to enlighten the value of relations. The emotions are responses of social relations, and personal judgment about specific situation of each individual. Each individual makes ruling about the apparent thing in view of their personal feelings and in relation to their ability to indulge and participate in social situation. Inability in accepting reality and recognizing appropriate feelings make an individual vulnerable toward the unexpected undesirable feelings that became apparent in no traceable time.

Physical ailment's like cardiac diseases are increasing throughout the world and this prevalence is also higher in Pakistan. Cardiac illnesses are considered chronic as they persist over a long duration, and leading to severe medical treatment procedure, that affect the mental, expressive, public, and mental functioning of the cardiac patient's (Wilson et al., 2007). The positive emotional states in cardiac patients help them to attain improved fitness, prolong life, and better well-being. On contrary, negative emotional strategies lead to higher inability of intolerance, higher anger, concern, and negative feelings increase the negative physical condition of cardiac patient's (Holland & Alici, 2010; McDowell & Serovich, 2007; Irwin, 2002).

The enduring incapability of social intolerance is aggregating in the population all over the globe due to increase in crisis and desperation over goal attainment. People of Pakistani society are facing problems for instance life difficulties, family glitches, energy issues and job difficulties making each individual unable to handle social situations in an effective manner. Social intolerance a demand that real situation should be in that manner in which individual mandate's and otherwise endured with rebuttal to accept the difference between a preference and reality (Ellis, 1995). Social intolerance is incapability or reluctance to tolerate social situation and things, reluctance toward others for equal liberty of countenance in spiritual and societal matters (Simons & Gaher, 2005). The high level of social intolerance in Pakistan is leading to manifestation of different psychological problems in Pakistani population. The social intolerance has been linked in literature with the development of symptoms of psychological distress among cardiac population (Matcham et al., 2014; Norton et al., 2011; Ansa et al., 2010; Andenæs, Kalfoss, & Wahl, 2006). Psychological distress is viewed as an expressive disturbance that consists of immediate responses of psychological issues such as depression, anxiety and stress.

The relation between social intolerance and psychological distress is crucial as social intolerance is unwillingness to maintain any activity due to inability to tolerate unpleasant feelings associated with the situation and lead to negative feelings of psychological distress (Rueda & Perez-Garcia, 2006). Emotion regulation is a process through which individuals modulate their emotions consciously and unconsciously (Bargh & Williams, 2007; Rottenberg et al., 2005) to suitably retort to ecological hassles (Campbell-Sills & Barlow, 2007). Psychological distress (e.g., depression, anxiety and stress) is extensively regarded as the result of difficulties in regulating emotions (Campbell-Sills & Barlow, 2007; Mennin et al., 2007; Watson, 2005; Gross & Munoz, 1995). Several theorists (Katherine et al., 2013; Rudolph et al., 2010; Lowe et al.,

2000) argue that when for a long time individuals are unable to effectively manage their emotional responses to everyday events that may evolve into psychological distress for instance depression and anxiety (DuBois et al., 2012; Mennin et al., 2007).

The social intolerance is affected by the manner of emotional regulation strategies as the more suppression toward intolerant situation lead to higher frustration and emotional reappraisal help in decreasing the level of social intolerance. For that the detailed literature review have highlighted that there is positive relationship between social intolerance and psychological distress (Norr et al., 2013; Zinchenko, Pervichko, & Martynov, 2013; Mahoney & McEvoy, 2011; Chen & Hong, 2010). Different therapeutic model have highlighted the associated link of emotional manner of coping with different life situations and method of thinking support in adaptation to life adverse circumstances and help in adaption to clinical symptoms of distress (Castella et al., 2013). Similarly, there is negative relationship between emotional regulation and psychological distress (Boelen & Reijntjes, 2008; Detweiler-Bedell et al., 2008) and similarly emotional regulation is negatively related with social intolerance. After consideration of different previous researches, in present study the moderating effect of emotional regulation between social intolerance and psychological distress will be investigated. Previous researches have majorly focused on highlighting the link of social intolerance and psychological distress (Harrington, 2006) showing that social intolerance has possibility of leading to distress feelings.

Considering the literature gap previously the social intolerance have been studied in student population and have been linked with poor academic performance and lower CGPA but the effect of social intolerance is not explored in cardiac population. The factor of social intolerance is increasing in the Pakistani population. Basically social intolerance is feeling of ambiguity, a horror of the unidentified, and need of control, sensitize a person to develop

negative feelings toward illness that lead to deprived coping strategies and reduced problem-solving abilities hence leading towards cardiac illness. For that reason social intolerance is explored in present study as it seems to be present in cardiac population in varying degrees.

In Pakistan another meagerness of previous researches is that they have catered emotional regulation, social intolerance and psychological distress as independent variables in different researches. Similarly the emotional regulation has been independently explored with its relation in the development of different clinical disorder but the effect of emotional regulation has never been explored in medical issues. Emotion regulation is a psychological variable that influence on medical illness self-help acquiescence and fitness behavior. As, adaptive/maladaptive controlling approaches for illness are arbitrated by one's ability to regulate emotion in cardiac patients, that help in affective management of distress feelings and better adaptation toward opposing social situations. To accommodate this limitation, present study was attempted to investigate a possible linkage of the three aforementioned psychological distress, social intolerance with moderation effect of emotional regulation among cardiac patients in Pakistani society.

This new area need to be explored in context of Pakistan. The social intolerance is recently explored in context of Pakistan society in relation with other variables in students and found that social intolerance have significant relation with internalizing and externalizing problems and social intolerance thus acts as a mediating variable in relation with guilt and shame, internalizing and externalizing problems (Tahira, 2013). Similarly, psychological distress has been studied with different variables such as resilience and coping strategies (Amira, 2010) perceived social support , repetitive negative thought (Ahmed, 2014), rumination styles (Kazmi, 2014) and role of parenting (Khalid, 2012), psychological distress been examined in parents of

deaf children (Maqsood, 2009) and found that psychological distress increase if manner of thought processes involved are not vicissitudes.

The concept of emotional regulation act as major factor in altering manner of cognition similarly, emotional regulation have been explored in Pakistan with parental condition, regard (Ayesha, 2013) and the role of attachment styles has also been explored with its link with emotional regulation (Jabeen, 2008) and found that authoritative and permissive parenting styles result into different manner of emotional regulation styles. The Emotional regulation link with overall better adjustment has also been explored in medical students and found that significant relation exist between better emotional regulation strategies and overall adjustment (Gul, 2014) but all of the researches lacked diversity in sample. Many of the questions persist unrequited, particularly if emotion regulation problems complex the effects of social intolerance in creating higher sensitivity and forecast psychopathology.

In Pakistan different medical problems (e.g., hypertension, cancer, diabetes, and tuberculosis) have been studied with other psychological variable and interrelated relation of medical issues like cardiac problem with variables like illness perception and psychological distress and other variables i.e., life styles of heart patients but previous researches have not explored the effect of social intolerance, emotion regulation on psychological distress among cardiac patients (Kazmi, 2014). The present study was focus on how the emotional regulation can moderate the relation between social intolerance and psychological distress and help to minimize the outcome variables in cardiac patient's.

The present study can be very help full in clinical setting and for the clinical intervention for psychological distress (e.g., depression, anxiety and stress) that result from higher social intolerance and emotion regulation difficulties. Present study is an attempt to fill up the gaps in

literature and research that are still need to be explored in Pakistan as well as it will provide in-depth information related to present study variables. In terms of significance of present study it can guide the clinical psychologist in therapeutic interventions and can also be beneficial for the family of cardiac patients that can help the patient in better way toward health and better emotional state. It will also be beneficial for health psychologist and researchers for making better management plans. It will open new avenues for exploration for the future researches.

The proposed conceptual model of present study is derived of comprehensive literature review that will be helpful to figure-out variation for the association between social intolerance and psychological distress as well as the moderating effect of emotional regulation.

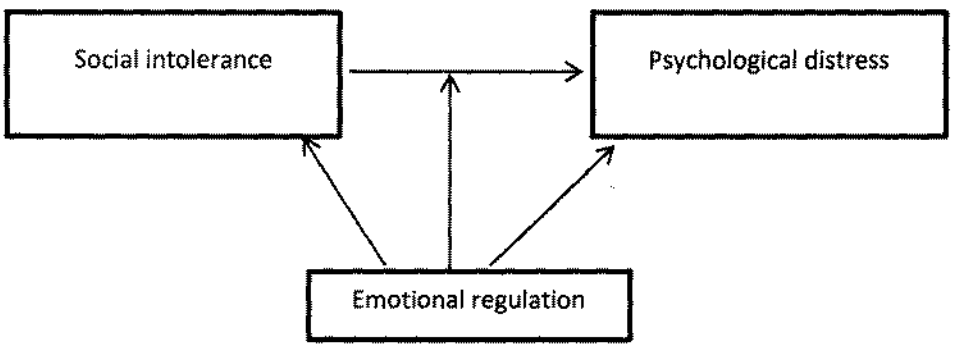


Figure 1. Conceptual model of moderating role of emotional regulation in the relationship between social intolerance and psychological distress.

METHOD

Chapter-II

METHOD

Objectives

1. To investigate the relationship between social intolerance, emotional regulation and psychological distress among cardiac patients.
2. To examine the moderating role of emotional regulation on the relationship between social intolerance and psychological distress among cardiac patients.
3. To study the effect of different demographics e.g., gender, family structure, age, cardiac issues, duration of illness, another physical illness on study variables of social intolerance, emotional regulation and psychological distress.

Hypotheses

The following hypotheses were tested in order to study moderating role of emotional regulation, social intolerance and psychological distress among cardiac patients in the light of literature review.

1. Social intolerance (discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) positively predicts psychological distress (depression, anxiety and stress) among cardiac patients.
2. Social intolerance (discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) negatively predicts cognitive reappraisal among cardiac patients.
3. Social intolerance (discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) positively predicts suppression among cardiac patients.
4. Cognitive reappraisal negatively predicts psychological distress (depression, anxiety and stress) among cardiac patients.

5. Suppression positively predicts psychological distress (depression, anxiety and stress) among cardiac patients.
6. Emotional regulation (emotional reappraisal, and expressive suppression) moderates the effect of social intolerance on psychological distress (depression, anxiety and stress).

Operational Definitions of the Variables

Social intolerance. Social intolerance is measured through Frustration Discomfort Scale (FDS) (Harrington, 2005). Frustration tolerance can be thought as the inability or unwillingness to persist an activity due to unpleasant feeling (Schmidth, Richey, & Fitzpatrick, 2006). In the present study the obtained high score on this scale indicate high social intolerance and vice versa. This scale has following components.

Discomfort intolerance. Discomfort intolerance reflects the belief that life should be easy, comfortable, and free from hassles. This commonly held belief that persevering in the face of discomfort to reach one's goals is a desirable character trait (Harrington, 2005). High score on the discomfort intolerance indicate the tendency of the cardiac patients to be discomfort intolerant.

Entitlement. Entitlement reflects the belief that desires must be met and that other people should not frustrate these desires (Harrington, 2005). High score on this scale indicates that cardiac patients have tendency to be high on Entitlement components.

Emotional intolerance. The emotional intolerance represents the belief that emotional stress in unbearable and must be avoided or controlled, and uncertainly reduced (Harrington, 2005). High score on the emotional intolerance indicates the tendency of the cardiac patients to be emotionally intolerant.

Achievement frustration. Achievement frustration represent the belief that individuals must not be prevented from reaching their goals. The intolerance of goal frustration is related to perfectionism (Harrington, 2005). High score on the this scale indicates the tendency of the cardiac patients to be achievement frustrated.

Emotional regulation. Emotional regulation refers to intrinsic and extrinsic processes responsible for monitoring, evaluating and modifying emotional reactions especially their intensive and temporal features, to accomplish one's goals (Thompson, 1999). In present study the obtained high score on emotional regulation questionnaire (EQR) this scale represents high emotional regulation and vice versa (Gross & John, 2003). In the present study emotional regulation will be measured in two ways e.g., emotional reappraisal and expressive suppression.

Emotional reappraisal. It involves situational varying connotation in such a way that there is alteration in the emotional response to that situation (Gross & John, 2003). High score on this scale indicates that the individual is more inclined to reappraisal the emotional situation and vice versa.

Expressive suppression. It refers to the effort to decline ongoing emotion expressive behavior (Gross & John, 2003). High score on the expressive suppression indicate that the individual is more inclined to suppress the ongoing emotions and vice versa.

Psychological distress. Psychological distress is seldom defined as distinct concept and it is often embedded in the concept of anxiety, stress and depression (Rinder, 2004). Psychological distress is the deviation from some objectively healthy state of being. It implies maladaptive patterns of coping. It is mild psychopathology with symptoms that are common in

the community. It is negative feelings of restlessness, depression, anger, anxiety, loneliness, isolation, and problematic interpersonal relationships (Burnette & Mui, 1997). In the present study it will be assessed by the obtained high score on the Depression, Anxiety and Stress Scale (DASS) (Levibond & Levibond, 1995). The components of the DASS are defined under.

Depression. Depression is the feeling of dyphoria, hopelessness, devaluation of life, self-deprecation and lack of interest, involvement in difficulties of daily activities (Levibond & Levibond, 1995). In present study a high score on the depression reflects high level of depression.

Anxiety. Anxiety is regarded as an automatic arousal, skeletal muscle effects situational anxiety and subjective experience after anxious feelings are experienced (Levibond & Levibond, 1995). In present study the high score on the anxiety reflect high level of anxiety.

Stress. Stress is chronic non-specific arousal difficulty relaxing nervous arousal and being easily upset and/ agitated, irritable and impatient (Levibond & Levibond, 1995). In present study a high score on the stress reflects high level of stress.

Instruments

The detail description of the research instrument is given below:

Frustration Discomfort Scale (Harrington, 2005)

Harrington's frustration discomfort scale was used to measure the social intolerance in cardiac patients. The scale consists of 28 items comprising of four subscales of discomfort intolerance, entitlement, emotional intolerance, and achievement frustration. The Cronbach alpha reliabilities for the respective sub-scales was .91, .88, .90, and .82, and for the full scale, .95 (Harrington, 2005). The scale is 5 point Likert type rating scale ranging from 1 (*absent*) to 5

(*very strongly*) with 7 items in each subscales. The discomfort intolerance subscale comprise of 7 items which are 1, 5, 9, 13, 17, 21, and 25. The entitlement subscale comprise of 7 items which are 2, 6, 10, 14, 18, 22 and 26. The subscale of emotional intolerance comprises of items no 3, 7, 11, 15, 19, 23, and 27. The subscale of achievement frustration comprises of items no 4, 8, 12, 16, 20, 24, and 28 (see Appendix B).

Emotional Regulation Questionnaire (Gross & John, 2003)

It was developed by Gross and John (2003). Emotion regulation questionnaire was used to measure the emotional regulation strategies e.g., cognitive reappraisal and expressive suppression in cardiac patients. It is 10 item self-report questionnaire. The questionnaire includes (6 items) for cognitive reappraisal and (4 items) for emotion suppression. Scores range from 6 to 42 for reappraisal scale and from 4 to 28 for suppression scale, with higher scores indicating higher reappraisal and suppression, respectively. The test-retest reliability is .07 (Gross & John, 2003). The items are rated on 7- point Likert type scale ranging from (strongly agree to strongly disagree). The emotional reappraisal comprises of items no 1, 3, 5, 7, 8 and 10. The expressive suppression comprises of items no 2, 4, 6 and 9 (see Appendix C).

Depression Anxiety Stress Scale (Levibond & Levibond, 1995)

In the present study Depression Anxiety Stress Scales 21 (DASS-21) is a short form of Lovibond and Lovibond's (1995) 42-item self-report measure of depression, anxiety, and stress (DASS) was used. Depression Anxiety Stress Scale-21 (DASS) was used to assess the psychological distress among cardiac patients. It is a self-report inventory consisting of three sets comprising of total of 21 items 7 items in each subscales designed to assess the negative emotions of anxiety, depression and stress. The reliability coefficient of depression, anxiety and stress scales range from 0.88 to 0.93 (Levibond & Levibond, 1995). The depression scale is

comprised of 3, 5, 10, 13, 16, 17, and 21 (7 Items). The anxiety subscale comprised of 2, 4, 7, 9, 15, 19, and 20 (7 items). The stress scale comprised of 1, 6, 8, 11, 12, 14, and 18 (7 items) (see Appendix D).

Demographic sheet

To obtain the nominal data related to participant and demographic information, a demographic sheet was used. The demographic sheet was used to acquire the information about the participant i.e., age, gender, education, birth order, family structure, profession, marital status, monthly income, number of children, cardiac issues, duration of illness, smoking and non-smoking, other physical problem, and history of cardiac pathology in family (see Appendix A).

Informed consent form

In present study the informed consent form was used to fulfill the ethical consideration of the research protocol. The informed consent form was used to get an approval of the participants for their willingness to participate in the current research. In the informed consent the basic area of research was described to clear any ambiguity of the participant and the participant was also assured that the information gained is used only for research purpose and the confidentiality of the each participant will be maintained.

Participants

The sample of present study was selected by using convenient sampling technique. The sample of the Pilot Study comprised of 30 (Male = 15, and female = 15) cardiac patients and the sample of main study comprised of 150, (Male = 80, and female = 70) cardiac patients. The cardiac patients were taken from Heart international Hospital (HIH), Benazir Bhutoo Hospital

(BBH), Rawalpindi Institute of Cardiology (RIC), Pakistan Institute of Medical Sciences (PIMS).

Inclusion criteria. The already diagnosed and referred cases by the cardiologists in cardiac wards/centers were included in sample. Cardiac patients of age range from 20-60 years were taken with minimum education level of graduation. The cardiac patients with stable medical condition were taken. Whereas, the patients of bypass were taken after one year of bypass surgery for keeping in view the ethical and medical considerations. The cardiac patients with other general medical conditions e.g., diabetes, hypertension were included in the sample in the light of supported literature.

Exclusion criteria. The cardiac patients in alarming condition were not included. The cardiac patients with other comorbid severe medical conditions (e.g., hepatitis, kidney transplantation and other sever medical conditions) were not included in the sample in the light of supported literature. Similarly the cardiac patients with any psychological condition were not included in sample.

Procedure

The present study was carried out in two parts. Part I (Pilot Study) was conducted to check the existing trends of the study instruments on small group of sample in a culturally pertinent form and to identify the design appropriateness and methodological problem expected which include the language difficulty, the emotional sensitivity of instrument, gender biasness, appropriateness of instruments for the selected medical population and finally to preliminary assess data about reliability, readability, applicability, validity of instruments in present medical population of cardiac patients. After administration of study instruments Pilot study also determined the time required to administer an instrument that can identify the fatigue issues (if

present) for cardiac patients. Pilot study was basically conducted to investigate the psychometric properties (i.e., reliability, inter scale correlation, item total correlation) of study measures for the sample of current study.

The Part II comprised of Main study where the study instruments were administered on the study sample to assess the social intolerance and psychological distress: the moderating effect of emotional regulation on cardiac patients. This was carried out on large size of study sample of cardiac patients. The main study aimed to examine the psychometric properties on larger sample and to explore the supporting evidence of existing pattern of study variables in the current indigenous culture. In main study (Step II), the hypothesized predictive and moderating relationships between study variables were examined.

In the initial step the author of Frustration discomfort scale Mr. Neil Harrington was contacted via email (see Appendix E) to get the permission to use the instrument in the present research. The permission was received from him along with other research material that could assist in the research. Similar procedure was used for obtaining permission from the author of Emotional Regulation Questionnaire (EQR) Mr. James J. Gross was contacted via email. The consent was received from Mr. Gross (see Appendix F). Similarly for the author of Depression Anxiety Stress Scale (DASS-21) Mr. Peter Lovibond was contacted via email for his permission to use the instrument in present research. The permission was received from him along with scoring key (see Appendix G).

After this the relevant hospital authorities of cardiac units in different hospitals were personally approached for purpose of data collection. These included In charge of cardiac units, directors/head of the departments, and registrar of Heart International Hospital (HIH), Benazir Bhutoo Hospital (BBH), Rawalpindi Institute of Cardiology (RIC), Pakistan Institute of Medical

Sciences (PIMS). The authorities were debriefed about the objectives of the study in permission letter (submitted in respective medical units, Appendix H) authorized by the respective university and also about the outcome of the study. The authorities were also informed about the time duration required for the data collection and also for the inclusion and exclusion criterion of the cardiac patients.

After the completion of the permission process the criterion of selection of participants explained in the sample was followed. Those participants were only approached who showed their willingness to participate in the study. The cardiac patients were approached individually; they were briefed about the purpose and objectives of the study. They were also assured about the confidentiality of the data and that the information obtained would purely be used for research purpose. After the verbal consent was taken, the cardiac patients were requested to complete the written informed consent form to participate in research. The participants were also given general instructions to complete the questionnaires, to clear any ambiguity in comprehending the instruments. The demographic sheet was used in the research to obtain overall information about the participants. The Social intolerance scale was measured using the Frustration Discomfort Scale (Harrington, 2005). The Emotional regulation was measured by using Emotion regulation questionnaire (Gross & John, 2003). The Psychological distress was measured using Depression Anxiety Stress Scales 21(Levibond & Levibond, 1995). The instruments from the participants were personally administered by the researcher and they were thanked for their participation and cooperation. After completion the instruments were checked for any missing items.

RESULTS OF PILOT STUDY

Chapter-III

RESULTS

The pilot study (Part I) was carried out in order to examine the psychometric properties (e.g., Alpha reliabilities, inter-scale correlation) of the study instruments Frustration Discomfort Scale, Emotional Regulation Questionnaire (EQR) and Depression Anxiety Stress Scale (DASS-21).

In the following table the internal reliability of Frustration Discomfort Scale, Emotional Regulation Questionnaire and Depression Anxiety Stress Scale (DASS-21), instruments are highlighted.

Table 1

Cronbach alpha reliability coefficients of the subscales of Frustration Discomfort Scale, Emotional Regulation Questionnaire and Depression Anxiety Stress Scale (N= 30)

Subscales	No. of items	Cronbach alpha coefficients
Discomfort Intolerance	7	.87
Entitlement	7	.77
Emotional Intolerance	7	.92
Achievement Frustration	7	.88
Emotional Reappraisal	6	.96
Expressive Suppression	4	.96
Depression	7	.97
Anxiety	7	.95
Stress	7	.88

Note. α = Chronbach's alpha

Table 1 shows the alpha reliability coefficients of the subscale of the Frustration discomfort scale yielded an alpha coefficient of .87 for the discomfort intolerance, .77 for entitlement, .92 for emotional intolerance, and .88 for achievement frustration. The alpha

reliability coefficients of the subscale of emotional regulation questionnaire yielded an alpha reliability coefficient of .96 for the emotional reappraisal, .96 for expressive suppression. Similarly the reliability coefficients yielded an internal consistency alpha coefficient of .97 for the depression subscale of depression, anxiety, and stress scale, .95 for anxiety, and .88 for stress. These satisfactory alpha reliabilities indicate that all the three scales are internally consistent and are a reliable measure for present research participants.

In the preceding table Pearson correlation is computed to evaluate the relationship between Social Intolerance, Emotional Regulation and Psychological Distress.

Table 2

Correlation matrix among Social Intolerance (Discomfort Intolerance, Entitlement, Emotional Intolerance, Achievement Frustration), Emotional Regulation (Emotional Reappraisal, Expressive Suppression, Psychological Distress (Depression, Anxiety, Stress) (N= 30)

		1	2	3	4	5	6	7	8	9
1	Discomfort Intolerance	-	.42*	.59**	.27	-.60**	.61**	.65**	.45*	.06
2	Entitlement		-	.41*	.54**	-.43*	.51**	.58**	.26	.37*
3	Emotional Intolerance			-	.40*	-.56**	.64**	.51**	.27	.29
4	Achievement Frustration				-	-.50**	.42*	.39*	.39*	.47**
5	Emotional Reappraisal					-	-.82**	-.80**	-.50**	.03
6	Expressive Suppression						-	.83**	.47**	.05
7	Depression							-	.66**	-.01
8	Anxiety								-	.04
9	Stress									-

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 <.01, *p <.05

Table 2 shows positive correlation exists between the study variables and their subscales. The discomfort intolerance, has positive correlation with depression (r = .65, p<.01), anxiety (r = .45, p<.05), and however discomfort intolerance had no correlation with stress (r = .06, p = n.s). The entitlement has positive correlation with depression (r = .58, p<.01), anxiety (r = .26, p = n.s), and stress (r = .37, p<.05). The subscale of emotional intolerance has positive correlation with depression (r = .51, p<.01), anxiety (r = .27, p = n.s), and stress (r = .29, p = n.s). Achievement frustration has positive correlation with depression (r = .39, p<.05), anxiety (r = .39, p<.05), and stress (r = .47, p<.01). Emotional reappraisal has negative correlation with expressive suppression (r = -.82, p<.01). Emotional reappraisal has negative correlation with depression (r = -.80, p<.01), anxiety (r = -.50, p<.01) and stress(r = .03, p = n.s). Expressive suppression has positive correlation with depression (r = .83, p<.01), anxiety (r = .47, p<.01) and

stress(r = .05, p = n.s). Depression has positive correlation with anxiety(r = .66, p<.01) whereas has negative correlation with stress (r = .01, p = n.s).

Item total correlation is figured in preceding table in order to measure whether the items of the subscales are reliable with the rest of the scales.

Table 3

Item total correlations of discomfort intolerance and entitlement subscale of Frustration Discomfort Scale

Discomfort intolerance		Entitlement	
Item number	Item total correlations	Item number	Item-total correlations
1	.79***	2	.82***
5	.81***	6	.70***
9	.69***	10	.78***
13	.72***	14	.58**
17	.79***	18	.55**
21	.83***	22	.54**
25	.60***	26	.55**

Table 3 shows item total correlations of discomfort intolerance and entitlement subscale of Frustration Discomfort Scale. The table 4 shows that all the items values are above .30 which means all the scales are reliable measure to assess the social intolerance.

Table 4

Item total correlations of emotional intolerance and achievement frustration subscale of Frustration Discomfort Scale (N= 30)

Emotional intolerance		Achievement frustration	
Item number	Item total correlations	Item number	Item-total correlations
3	.81***	4	.65***
7	.86***	8	.74***
11	.92***	12	.74***
15	.78***	16	.86***
19	.89***	20	.82***
23	.76***	24	.75***
27	.80***	28	.76***

Table 4 shows Item total correlations of emotional intolerance and achievement intolerance subscale of Frustration Discomfort Scale (FDS). The table 5 shows that all the items values are highly significant and above .30 which shows which means all the scales are reliable measure to assess the social intolerance.

Table 5

Item total correlations of emotional reappraisal and expressive suppression subscale of Emotional Regulation Questionnaire (N= 30)

Emotional reappraisal		Expressive suppression	
Item number	Item total correlations	Item number	Item-total correlations
1	.93***	2	.96***
3	.92***	4	.96***
5	.94***	6	.95***
7	.91***	9	.90***
8	.80***		
10	.94***		

Table 5 shows item total correlations of emotional reappraisal and expressive suppression subscale of Emotional Regulation Questionnaire. The table 6 shows that all the items values are highly significant and above .30 which shows which means all the scales are reliable measure to assess the emotional regulation.

Table 6

Item total correlations of depression, anxiety and stress subscale of Psychological Distress (N= 30)

Depression		Anxiety		Stress	
Item Number	Item total Correlations	Item Number	Item-total correlations	Item Number	Item-total correlations
3	.88***	2	.79***	1	.54**
5	.93***	4	.94***	6	.89***
10	.95***	7	.93***	8	.89***
13	.92***	9	.94***	11	.87***
16	.96***	15	.92***	12	.84***
17	.95***	19	.89***	14	.61***
21	.94***	20	.82***	18	.74***

Table 6 shows item total correlations of depression, anxiety and stress subscale of Psychological Distress. The table 6 shows that all the items values are highly significant and above .30 which shows that both of the scales are reliable measure to assess the psychological distress (Field, 2009).

The pilot study (Part I) was carried out to explore the psychometric properties of the instruments that were used in the present study to assesses the social intolerance, emotional regulation and psychological distress among the sample. For purpose of pilot study sample of 30 cardiac patients was taken with age range of 20-60. The reliabilities of the scales are assessed by measuring the internal reliability of the subscales as computed by Coefficient Alpha (Cronbach, 1984). All the study scales show satisfactory internal consistency (.77 to .97) as they exceeded .70 (Table 1) (Nunnally, 1978). The coefficient of alpha reliabilities shows that the instruments have sufficient internal consistency for the present study sample.

Additionally, for evidence of the internal consistency of the subscale of the present study the item total correlation of the scales is assessed (Table 3-6). The item total correlation values of discomfort intolerance ranged from (.60 to .83), the item correlation of the subscale of entitlement ranged from (.54 to .82), which is slightly less than the overall subscale item total correlation values but as the item total correlation value is greater than .30 it's a reliable measure to assess the social intolerance. The item total correlation of emotional intolerance correlation values ranged from (.76 to 89). The subscale of achievement frustration has item total correlation ranging from (.65 to .86) (Table 3-6)

The correlation of subscales of social intolerance (e.g., discomfort intolerance, entitlement, emotional intolerance, and achievement frustration), emotional regulation (emotional reappraisal and expressive suppression) and psychological distress (e.g., depression, anxiety and stress) is carried out by using bivariate correlation. The results shows that discomfort intolerance, entitlement, emotional intolerance and achievement frustration has positive correlation with depression, anxiety and stress. However, only achievement frustration has significant relation with stress as compare to the other subscale. These results are consistent with

the concept that individual that score high on discomfort intolerance and emotional intolerance are prone to experience more level of psychological distress (e.g., depression, anxiety and stress). Whereas, the entitlement and achievement frustration has negative correlation with stress. The psychological distress (depression and anxiety) has significant negative correlation with the emotional reappraisal. These findings are also in accordance with the theoretical background that cardiac patient who experience emotional reappraisal experience lower and higher level of depression and anxiety vice versa. The result also shows that overall the subscales of social intolerance (e.g., discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) have negative correlation with the emotional reappraisal. These findings are also consistent with literature review that cardiac patients who utilized emotional reappraisal experience lower level of social intolerance. The suppression has significant positive correlation with the social intolerance (e.g., discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) and psychological distress (e.g., depression, anxiety and stress). Suppression had significant negative relation with the emotional reappraisal (Table 3). It also shows that both of emotional regulation subscale measures opposite manner of emotional regulation strategies. From here now onward the results of the main study are given on the next page.

RESULTS OF MAIN STUDY

Results of Main Study

The present study aimed to investigate the moderating role of emotional regulation between social intolerance and psychological distress among cardiac patients. Firstly, the descriptive analysis of study variables (frequency, means, standard deviation, skewness, Kurtosis) are assessed to explore the normality assumptions in sample distribution. After the descriptive analysis of study sample the alpha reliabilities of the all scales are again assessed on larger sample size. Further, for hypothesis testing the T-test, ANOVA and regression is carried out. Moderation is analyzed for exploring the effect of emotional regulation on social intolerance and psychological distress among cardiac patients.

Descriptive statistics of the main study is given in the preceding table (Table 7).

Table 7

Descriptive statistics and Skewness of the Social Intolerance (Discomfort Intolerance, Entitlement, Emotional Intolerance, Achievement Frustration), Emotional Regulation (Emotional Reappraisal, Expressive Suppression) and Psychological Distress (Depression, Anxiety, Stress), (N= 150)

			Score range			
Scales	*M*	*SD*	Potential	Actual	Skewness	Kurtosis
Discomfort intolerance	23.46	5.41	7-35	7-32	-.20	-1.13
Entitlement	22.31	5.38	7-35	7-35	.29	-.83
Emotional intolerance	22.43	5.41	7-35	7-33	.11	-.95
Achievement frustration	21.34	4.24	7-35	7-32	.13	-.75
Emotional reappraisal	20.56	7.89	6-42	6-33	.32	-1.53
Expressive suppression	15.57	5.43	4-28	4-21	-.54	-1.40
Depression	13.80	5.54	0-21	0-21	-.25	-1.41
Anxiety	12.14	5.24	0-21	0-21	.06	-1.11
Stress	23.46	5.41	0-21	0-21	-.05	-.81

Table 7 shows the computed values of mean, standard deviation, skewness, and kurtosis for all the subscales of the variables. It is detected that the variables of social intolerance, emotional regulation and psychological distress skewness is within range of +1 to -1 which shows that the data of all study variables is normally distributed and analysis can be applied.

The reliability estimates of the study instruments are also investigated (Table 8).

Table 8

Cronbach alpha reliability coefficients of the subscales of Frustration Discomfort Scale, Emotional Regulation Questionnaire, and Depression Anxiety Stress Scale (N= 150)

Subscales	No. of items	Cronbach's alpha coefficients
Frustration Discomfort Scale (FDS)		
Discomfort Intolerance	7	.86
Entitlement	7	.81
Emotional Intolerance	7	.91
Achievement Frustration	7	.74
Emotional Regulation Questionnaire (EQR)		
Emotional Reappraisal	6	.95
Expressive Suppression	4	.93
Depression Anxiety and Stress Scale (DASS)		
Depression	7	.92
Anxiety	7	.93
Stress	7	.88

Note. α = Chronbach's alpha

Table 8 shows alpha reliability of Frustration Discomfort Scale, Emotional Regulation Questionnaire and Depression Anxiety Stress Scale. The reliabilities for the discomfort intolerance is (.86), entitlement is (.81), emotional intolerance is (.91), and for achievement frustration is (.74). The Alpha reliabilities of emotional reappraisal are (.95) and for expressive suppression is (.93). The reliability coefficients of depression is (.92), anxiety is (.93), and for stress is (.88). All the scales reliabilities are found to be adequate with reliabilities ranging from .81 to .95. These satisfactory alpha reliabilities indicates that Frustration discomfort scale, Emotional Regulation Questionnaire and Depression Anxiety Stress Scale are reliable measure for assessing social intolerance, emotional regulation and psychological distress among the cardiac patients. Pearson correlation is figured for the study variables in the preceding table.

Table 9

Correlation matrix among Social Intolerance (Discomfort Intolerance, Entitlement, Emotional Intolerance, Achievement Frustration), Emotional Regulation (Emotional Reappraisal, Expressive Suppression, Psychological Distress (Depression, Anxiety, Stress) (N= 30)

		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									-

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 9 shows positive correlation exists between the study variables and their subscales. The discomfort intolerance, has positive correlation with depression (r = .63, p<.01), anxiety (r = .54, p<.01), and however discomfort intolerance had no correlation with stress (r = .12, p = n.s). The entitlement has positive correlation with depression (r = .46, p<.01), anxiety (r = .29, p<.05), and stress (r = .19, p<.05). The subscale of emotional intolerance has positive correlation with depression (r = .54, p<.01), anxiety (r = .41, p<.01), and stress (r = .18, p<.05). Achievement frustration has positive correlation with depression (r = .32, p<.01), anxiety (r = .44, p<.01), and stress (r = .18, p<.05). Table no 10 shows that emotional reappraisal has negative correlation with expressive suppression (r = -.68, p<.01). Emotional reappraisal has negative correlation

with depression (r = -.68, p<.01), anxiety (r = -.56, p<.01) and stress(r = .10, p = n.s). Expressive suppression has positive correlation with depression (r = .67, p<.01), anxiety (r = .56, p<.01) and stress(r = .18, p<.05). Depression has positive correlation with anxiety(r = .49, p<.01) whereas has no correlation with stress (r = .05, p = n.s).

Mean differences were analyzed on different groups of sample based on the demographic features of gender, family structure, age, duration of illness, cardiac issues and physical illness. The results are shown in table no 10-17.

Table 10

Mean, Standard Deviation, t values on social intolerance, emotional regulation, and psychological distress among male and female cardiac patients (N = 150)

Variables	Male (*n* = 80)		Female (*n* =70)		*t*	*p*	95% CI		*Cohen's d*
	M	*SD*	*M*	*SD*			*LL*	*UL*	
Discomfort intolerance	25.87	5.63	23.02	5.60	2.91	.03	-.94	2.56	.50
Entitlement	22.42	5.28	22.18	5.54	.27	.77	-1.50	1.98	.04
Emotional intolerance	22.40	5.46	22.47	5.39	.08	.80	-1.82	1.68	-.01
Achievement frustration	23.71	4.55	20.91	4.44	2.51	.01	-.57	2.16	.62
Emotional reappraisal	19.96	7.88	21.25	7.91	2.45	.01	-3.84	1.26	-.16
Expressive suppression	18.92	6.44	15.17	5.42	3.84	.00	-1.00	2.51	.63
Depression	17.83	6.02	13.77	4.99	2.72	.00	-1.73	1.86	.73
Anxiety	14.07	5.35	12.21	5.15	3.16	.02	-1.84	1.56	.35
Stress	13.20	4.34	13.80	4.08	.87	.48	-1.96	.766	-.14

Note. CI= Confidence Interval, LL = Lower Limit, UP= Upper Limit.

*p <0.05, **p <0.01

Table 10 shows gender difference on the study variables of social intolerance, emotional regulation and psychological distress. The table 10 shows no significant mean difference on entitlement, emotional intolerance between male and female cardiac patients. However, the male cardiac patients are higher on discomfort intolerance (*M*= 25.87, *SD*= 5.63) and achievement frustration (*M*= 23.71, *SD*= 4.55) as compared to female cardiac patients (*M*= 23.02, *SD*= 5.60) and (*M*= 20.91, *SD*= 4.44). Female cardiac patients are higher on emotional reappraisal (*M*= 21.25, *SD*= 7.91) as compare to male patients (*M*= 19.96, *SD*= 7.88) on contrary the male are higher on expressive suppression (*M*= 18.92, *SD*= 6.44) as compare to male patients (*M*= 15.17, *SD*= 5.42). The mean difference showed that male are higher on depression (*M*= 17.83, *SD*=

6.02) as compare to female cardiac patients (*M*= 13.77, *SD*= 4.99). The female mean are higher on anxiety (*M*= 14.07, *SD*= 5.35) as compare to male cardiac patients (*M*= 12.21, *SD*= 5.51). However, no significant mean difference was observed on stress among male and female cardiac patients (*M*= 13.20, *SD*= 4.34). However, depression is seen to be more prominent in male as compare to female patients which is accordance to the literature review as suppression increases the depression also increases.

Table 11

Mean, Standard Deviation, t values on social intolerance, emotional regulation, and psychological distress on joint and nuclear family structure (N = 150)

Variables	Joint (*n* = 64)		Nuclear (*n* = 86)		*t*	*p*	95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*			*LL*	*UL*	
Discomfort intolerance	23.04	5.66	25.76	5.23	3.80	.00	-2.49	1.04	-.43
Entitlement	22.64	5.51	22.06	5.31	.64	.56	-1.19	2.32	.10
Emotional intolerance	22.07	4.86	24.69	5.80	3.69	.01	-2.38	1.14	-.48
Achievement frustration	21.25	4.30	20.73	7.82	.22	.98	-1.54	1.23	.08
Emotional reappraisal	20.44	8.00	20.44	8.00	.22	.59	-2.29	2.87	.00
Expressive suppression	15.66	5.33	15.66	5.33	2.23	.02	-1.98	1.56	.00
Depression	15.66	5.33	10.89	4.63	2.28	.02	-2.07	1.55	.95
Anxiety	10.89	4.63	13.06	5.50	2.56	.01	-3.85	-.49	-.42
Stress	13.00	4.16	13.83	4.25	2.20	.02	-2.21	.53	-.19

Note. CI= Confidence Interval, LL = Lower Limit, UP= Upper Limit.

*p <0.05, **p <0.01

Table 11 shows family structure differences on the study variables of social intolerance, emotional regulation and psychological distress. The discomfort intolerance and emotional intolerance means are higher in nuclear family (*M*= 25.76, *SD*= 5.23) and (*M*= 24.69, *SD*= 5.80) as compare to joint family structure (*M*= 23.04, *SD*= 5.66) and (*M*= 22.07, *SD*= 4.86). The achievement frustration is seen to be higher in joint family (*M*= 21.25, *SD*= 4.30) as compare to nuclear family (*M*= 20.73, *SD*= 7.82). However, no significant mean difference on the variable of entitlement is observed among joint and unclear family (*M*= 22.64, *SD*= 5.51). Table no 11 shows no significant mean difference on emotional reappraisal (*M*= 20.44, *SD*= 8.00) and expressive suppression (*M*= 15.56, *SD*= 5.33) among joint and nuclear family. Depression is higher in cardiac patients of joint family (*M*= 15.66, *SD*= 5.33) as compare to nuclear family

(*M*= 10.89, *SD*= 4.63). The anxiety is higher in cardiac patients of nuclear family (*M*= 10.89, *SD*= 4.63) as compare to joint family(*M*= 13.06, *SD*= 5.50). However, no significant mean difference is observed on stress among cardiac patients of nuclear and joint family (*M*= 13.00, *SD*= 4.16).

Table 12

Mean, standard deviation, f- values of age difference on social intolerance, emotional regulation, and psychological distress (N = 150)

	20-30 Years (n = 11)		31-40 Years (n = 31)		41-50 Years (n = 34)		51-60 Years (n = 74)			
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	$\eta 2$
Dis. Int	23.45	6.13	23.64	5.36	21.29	4.87	24.37	5.39	2.61*	.07
Entit	20.36	4.56	23.25	5.27	20.82	5.18	22.89	5.52	1.98	.08
Emo.int	23.18	4.23	21.80	5.43	20.67	4.24	23.39	5.86	2.22	.18
Ach.fru	19.90	3.14	21.25	4.60	20.94	4.35	21.77	4.18	.77	.17
Reap	20.72	7.73	20.83	7.63	22.85	7.78	19.37	7.99	1.53	.15
Sup	15.27	5.46	15.74	5.39	14.35	5.67	16.10	5.35	.82	.08
Dep	15.63	4.45	14.29	5.83	12.41	5.58	13.97	5.51	1.22	.04
Anxiety	11.45	5.66	11.64	5.43	10.23	4.89	13.32	5.05	3.02*	.18
Stress	13.00	4.38	13.09	4.90	14.00	4.56	13.47	3.77	.30	.07

Note. Dis. Int = Discomfort Intolerance, Entit = Entitlement, Emo. Int= Emotional Intolerance, Ach. Fru= Achievement Frustration, Reap= Emotional Reappraisal, Sup= Expressive Suppression, Dep = Depression.

*p <0.05, **p <0.01

Table 12 shows the mean differences on age categories of (e.g., 20-30, 31-40, 41-50 and 51- 60), as given by Sharma and Kandpal (2014). The mean value of discomfort intolerance (*M*= 24.37, *SD*= 5.39) is higher in age of (50-61) as compare to other age categories. The entitlement (*M*= 23.25, *SD*= 5.27) is higher in age category of (31-40) as compare to other age categories. Emotional intolerance mean (*M*= 23.75, *SD*= 4.81) is higher in age category of (20-30) and (50-61) as compare to other age categories. The achievement frustration mean (*M*= 21.77, *SD*= 4.18) is higher in age category of (31-40) and (50-61). Reappraisal mean (*M*= 22.85, *SD*= 7.78) difference is higher in age category of (41-50) as compare to other age categories. The expressive suppression mean (*M*= 16.10, *SD*= 5.35) is highest in age category of (50-61) as compare to other age categories. The depression mean (*M*= 15.63, *SD*= 4.45) is highest in age category of (41-50) as compare to other age categories. Anxiety mean (*M*= 13.32, *SD*= 5.51) is highest in age category of age (51-60) as compare to other age categories. The stress mean (*M*=

14.00, *SD*= 4.56) is highest in age category of (41- 50) as compare to other age categories. Eta value showed significant effect size of social intolerance and emotional reappraisal on age.

Table 13
Post-hoc analysis of social intolerance, emotional regulation and psychological distress (N= 150)

Study variables	*i*	*j*	*(i-j)*	*S. E*	*p*	95% CI	
						LL	*UL*
Discomfort Intolerance	51-60	20-30	.92	1.72	.95	-3.55	5.40
		31-40	.73	1.14	.91	-2.23	3.69
		41-50	3.08*	1.10	.03	.21	5.95
Anxiety	51-60	20-30	1.86	1.66	.67	-2.44	
		31-40	1.67	1.10	.42	-1.18	4.53
		41-50	3.089*	1.06	.02	.31	5.85

The result shows that cardiac patient of (51-60) years of age are higher on discomfort intolerance as compare to cardiac patients of (41-50) years of age. Similarly the cardiac patient of (51-60) years of age were higher on anxiety as compare to cardiac patients of (41-50) years of age.

In the following table cardiac issues difference are calculated through ANOVA on subscales of social intolerance, emotional regulation, and psychological distress.

Table 14

Mean, standard deviation, f- value of cardiac issues on social intolerance, emotional regulation, and psychological distress (N = 150)

	Cardiac Failure (n = 66)		Chest Pain (n = 34)		Bypass surgery (n = 22)		Cardiac disease (n = 28)			
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	$\eta 2$
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
Reap	20.69	8.04	20.26	8.03	21.45	8.57	19.92	7.15	.17	.23
Sup	15.42	5.49	16.29	5.14	14.77	5.87	15.67	5.45	.37	.06
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

Note. Dis. Int = Discomfort Intolerance, Entit = Entitlement, Emo. Int= Emotional Intolerance, Ach. Fru= Achievement Frustration, Reap= Emotional Reappraisal, Sup= Expressive Suppression, Dep = Depression.

*p <0.05, **p <0.01

Table 14 shows mean difference on cardiac issues which are divided into category of e.g., cardiac failure, chest pain, bypass surgery and cardiac disease. The table 14 shows that discomfort intolerance mean value(M= 24.89, SD= 5.56) is higher in patients of cardiac disease as compare to the other cardiac issues. The entitlement mean (M= 23.92, SD= 5.75) is higher in patients of cardiac disease as compare to the other cardiac issues. The emotional intolerance mean(M= 23.75, SD= 4.81) is higher in patients of cardiac disease as compare to the other cardiac issues. Achievement frustration mean (M= 21.75, SD= 3.69) is higher in cardiac disease as compare to other cardiac issues. Emotional reappraisal mean (M= 21.45, SD= 8.75) is highest in category of bypass surgery as compare to the other cardiac issues. The expressive suppression mean (M= 16.29, SD= 5.14) is highest in the category of chest pain as compared to the other cardiac issues. The depression mean (M= 16.03, SD= 4.28) is highest in cardiac disease category as compare to the other cardiac issues. The anxiety mean (M= 13.26, SD= 5.61) is highest in

chest pain as compared to the other cardiac issues. The stress mean (M= 14.50, SD= 5.05) is highest in bypass surgery as compare to the other cardiac issues. Eta value showed significant effect size of social intolerance and emotional reappraisal, depression and anxiety cardiac issues on cardiac issues.

In the preceding table mean differences for duration of cardiac illness differences are calculated through ANOVA on subscales of social intolerance, emotional regulation, and psychological distress.

Table 15

Mean, standard deviation, f- value of cardiac illness duration social intolerance, emotional regulation, and psychological distress (N = 150)

	Less than 1 year (n = 66)		1-3 Years (n = 34)		4-6 years (n = 22)			
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	η^2
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
Emotional reappraisal	20.09	8.00	20.68	7.86	20.92	7.95	.14	.17
Expressive suppression	15.84	5.67	15.68	5.16	15.21	5.51	.18	.05
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

*p <0.05, **p <0.01

Table 15 shows the mean differences on cardiac illness duration that were, less than 1 year, 1-3 years and 4-6 years. There is no significant mean difference on discomfort intolerance (*M*= 23.84, *SD*= 5.48), entitlement (*M*= 21.88, *SD*= 5.11) and achievement frustration (*M*= 21.57, *SD*= 4.78). The emotional intolerance mean (*M*= 23.30, *SD*= 5.61) is highest on the category of 4-6 years duration. Similarly there was no significant mean difference on duration of illness on variable of emotional reappraisal (*M*= 20.92, *SD*= 7.95) and expressive suppression (*M*= 15.84, *SD*= 5.67). The result of table 15 shows that depression (*M*= 14.43, *SD*= 5.30) is higher in category of less than 1 year. Anxiety (*M*= 12.88, *SD*= 5.73) is higher in category of less than 1 year on duration of illness categories. However, the stress mean (*M*= 14.15, *SD*= 4.35) is higher in category of 4-6 years of illness as compare to categories of less than 1 year, and 1-3 years. Eta value shows larger effect size of social intolerance and emotional reappraisal, and psychological distress on duration of illness.

Table 16

Mean, standard deviation, f- value of physical illness on social intolerance, emotional regulation, and psychological distress (N = 150)

	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*	η^2
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
Reap	20.69	8.04	20.26	8.03	21.45	8.57	19.92	7.15	20.38	7.98	1.27	.13
Sup	15.42	5.49	16.29	5.14	14.77	5.87	15.67	5.45	16.85	5.11	1.38	.05
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

Note. Dis. Int = Discomfort Intolerance, Entit = Entitlement, Emo. Int= Emotional Intolerance, Ach. Fru= Achievement Frustration, Reap= Emotional Reappraisal, Sup= Expressive Suppression, Dep = Depression.

*p <0.05, **p <0.01

Table 16 shows the mean differences on five physical illnesses that were joint pain, stomach/lungs issue, diabetes, hypertension, hypertension with diabetes. Result shows mean differences are of discomfort intolerance (*M*= 24.89, *SD*= 4.56), entitlement (*M*= 23.92, *SD*= 5.75) and emotional intolerance (*M*= 23.75, *SD*= 4.81) is higher in hypertension as compare to other categories. Reappraisal mean (*M*= 21.45, *SD*= 8.57) is higher diabetes as compare to other categories. Expressive suppression (*M*= 16.85, *SD*= 5.11) is higher in hypertension with diabetes as compare to other categories. Depression (*M*= 16.03, *SD*= 4.28) is higher in hypertension illness as compare to other categories. Anxiety (*M*= 21.57, *SD*= 4.78) is seen to be prominent in stomach/lungs issues as compare to other categories. Stress (*M*= 14.50, *SD*= 5.05) is higher in diabetes as compare to other illness. Eta value showed significant effect size of social intolerance and emotional reappraisal, and psychological distress on physical illness.

Table 17
Post-hoc analysis of emotional intolerance and achievement frustration on physical illness (N= 150)

Dependent variables	*i*	*j*	*(i-j)*	*S.E*	*p*	95% CI LL	95% CI UL
Emotional intolerance	Joint Pain	Stomach/ Lungs Problem	-5.84*	1.77	.010	-10.73	-.95
	Stomach/ Lungs Problem	Joint Pain	5.84*	1.77	.010	.95	10.73
		Diabetes	6.24*	1.87	.009	1.07	11.41
		Hypertension	4.60	1.69	.056	-.07	9.28
		Hypertension with diabetes	5.21*	1.76	.029	.34	10.08
	Diabetes	Joint Pain	-.39	1.42	.999	-4.33	3.54
		Stomach/ Lungs Problem	-6.24*	1.87	.009	-11.41	-1.07
		Hypertension	-1.64	1.33	.732	-5.32	2.03
		Hypertension with diabetes	-1.03	1.41	.950	-4.94	2.88
	Hypertension with diabetes	Joint Pain	.63	1.28	.988	-2.91	4.17
		Stomach/ Lungs Problem	-5.21*	1.76	.029	-10.08	-.34
		Diabetes	1.03	1.41	.950	-2.88	4.94
		Hypertension	-.61	1.17	.985	-3.86	2.64
Achievement intolerance	Joint Pain	Stomach/ Lungs Problem	-4.73*	1.37	.007	-8.54	-.92
		Diabetes	.09	1.11	1.000	-2.97	3.16
		Hypertension	-1.81	.92	.288	-4.37	.73
		Hypertension with diabetes	-.93	.99	.882	-3.69	1.82
	Stomach/ Lungs Problem	Joint Pain	4.73*	1.37	.007	.92	8.54
		Diabetes	4.82*	1.45	.010	.80	8.85
		Hypertension	2.91	1.31	.182	-.72	6.56
		Hypertension with diabetes	3.79*	1.37	.049	.00	7.59
	Diabetes	Joint Pain	-.09	1.11	1.000	-3.16	2.97
		Stomach/ Lungs Problem	-4.82*	1.45	.010	-8.85	-.80
		Hypertension	-1.91	1.03	.352	-4.77	.95
		Hypertension with diabetes	-1.03	1.10	.883	-4.07	2.01
	Hypertension with diabetes	Joint Pain	.93	.99	.882	-1.82	3.69
		Stomach/ Lungs Problem	-3.79*	1.37	.049	-7.59	-.00
		Diabetes	1.03	1.10	.883	-2.01	4.07
		Hypertension	-.882	.91	.871	-3.41	1.64

The result shows that cardiac patients with stomach/lung problem are higher on emotional intolerance as compare to the patients with joint pain, diabetes and hypertension with diabetes. Similarly, the cardiac patients with stomach/lung problem are higher on achievement frustration as compare to the patients with joint pain, diabetes and hypertension with diabetes.

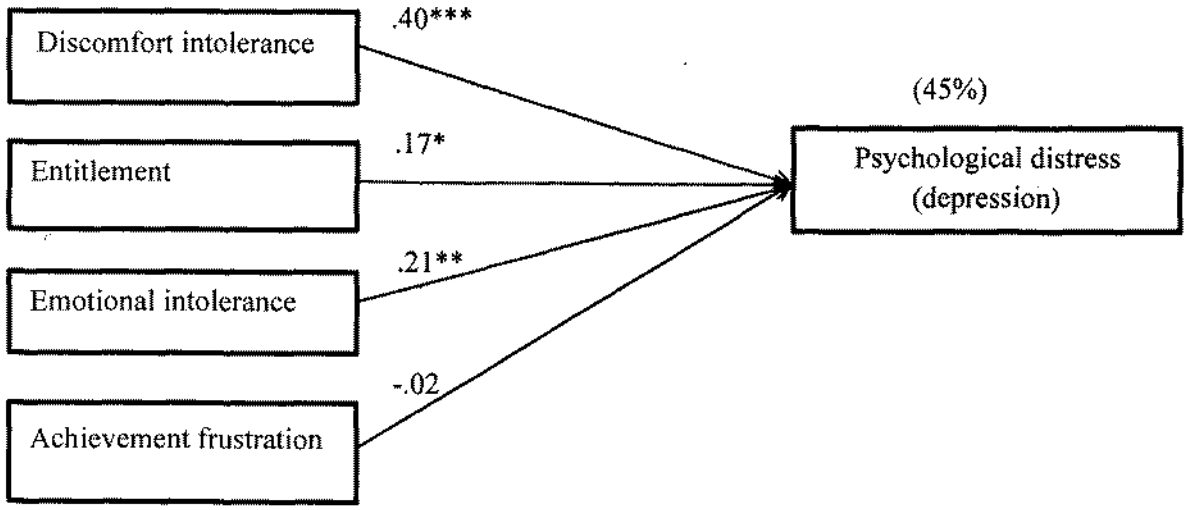
Regression analysis. To explore the effect of variances of social intolerance on psychological distress the multiple regression was computed using liner regression analysis. The effect of emotional regulation on psychological distress was also computed using liner regression analysis. The relationships were further demonstrated in form of figure form to highlight the effect of relationships between study variables.

Table 18
Multiple regression analysis to test effects of social intolerance on Psychological distress (depression) (N = 150)

	Psychological distress (depression)	
		Model 1
Variables	*B*	*95 % CI*
Constant	-4.317	[-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	

Note. CI = confidence interval.
*$p < 0.05$, **$p < 0.01$*

Regression analysis is computed to explore the predictive features of social intolerance subscales on psychological distress (Depression). As shown in the table 18, the discomfort intolerance (β = .40, p< .001), entitlement (β = .17, p< .05), emotional intolerance (β = .21, p < .01), positively predicted psychological distress (depression). The value of R^2 showed that discomfort intolerance, entitlement , and emotional intolerance (social intolerance) explained a total of 45 % variance in psychological distress (depression). The achievement frustration could not significantly contribute in predicting psychological distress. The above stated prediction is significant as F (29.74) and p< .01.



Note. The showed figure are *β values*, R^2 and each value is positioned above its corresponding arrows (*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$). Figure is schematic demonstration of the assumed model of estimation (social intolerance) of outcome (psychological distress).

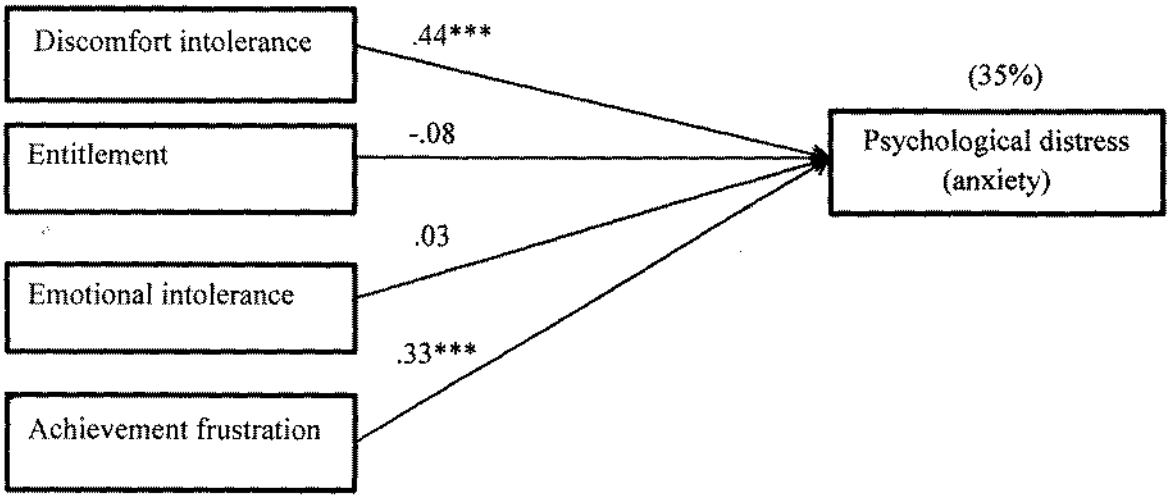
Figure 2. Elucidates a visual presentation of best predictive model of Psychological distress (depression).

Table 19
Multiple regression analysis to test effects of social intolerance on Psychological distress (Anxiety) (N = 150)

	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	

Note. CI = confidence interval.
*$p < 0.05$, **$p < 0.01$*

Regression analysis is computed to explore the predictive features of social intolerance subscales on psychological distress (anxiety). As shown in the table 19, the discomfort intolerance (β = .44, p< .001), achievement frustration (β = .33, p< .001) positively predicted psychological distress (anxiety). The value of R^2 shows that discomfort intolerance , achievement frustration (social intolerance) explained a total of 35 % variance in psychological distress (anxiety). The entitlement and emotional intolerance could not significantly contribute in predicting psychological distress. The above stated prediction is significant as F (19.74) and p< .01.



Note. The showed figures are *β values*, R^2 and each value is positioned above its corresponding significance value (*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$). Figure schematic demonstration of the assumed model of estimation (social intolerance) of outcome (psychological distress).

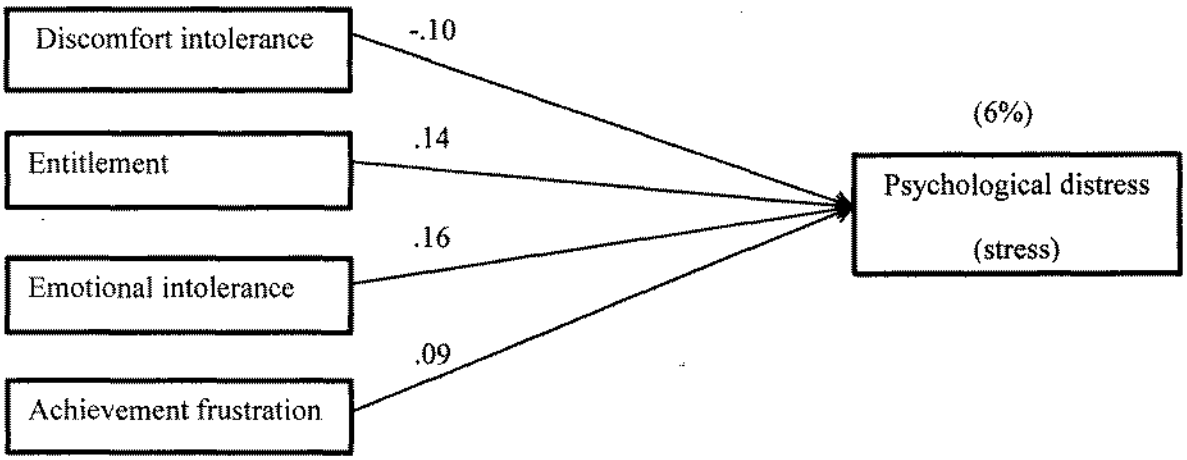
Figure 3. Elucidates a visual presentation of best predictive model of Psychological distress (anxiety).

Table 20
Multiple regression analysis to test effects of social intolerance on Psychological distress (stress) (N = 150)

	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	

Note. CI = confidence interval.
*$p < 0.05$, **$p < 0.01$*

Regression analysis is computed to explore the predictive features of social intolerance subscales on psychological distress (stress). The value of R^2 shows that discomfort intolerance, entitlement, emotional intolerance and achievement frustration (social intolerance) explained a total of 6 % variance in psychological distress (stress). The entitlement and emotional intolerance could not significantly contribute in predicting psychological distress. The above stated prediction is significant as F (2.34) and $p < .05$.



Note. The showed figure are *β values*, R^2 and each value is positioned above its corresponding significance value (*p < 0.05, **p< 0.01, ***p< 0.001). Figure schematic demonstration of the assumed model of estimation (social intolerance) of outcome (psychological distress).

Figure 4. Elucidates a visual presentation of best predictive model of Psychological distress (stress).

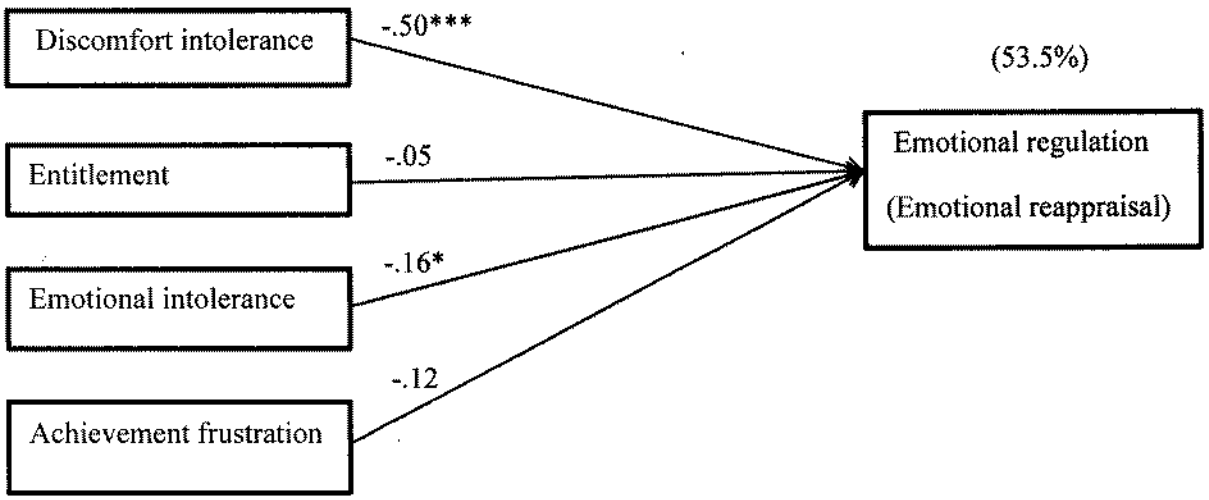
Table 21

Multiple regression analysis to test effects of social intolerance on Emotional regulation (emotional reappraisal) (N = 150)

	Emotional regulation (emotional reappraisal)	
		Model 1
Variables	*B*	*95 % CI*
Constant	50.165	[44.96 , 55.37]
Discomfort intolerance	-.738	[-.987, -.488]
Entitlement	-.081	[-.285 ,.123]
Emotional intolerance	-.244	[-.468, -.019]
Achievement frustration	-.235	[-.482 , .012]
R^2	0.535	
F	41.72	

Note. CI = confidence interval.
*$p < 0.05$, **$p < 0.01$*

Regression analysis is computed to find the predictive features of social intolerance subscales on Emotional regulation (emotional reappraisal). As shown in the table 21, the discomfort intolerance (β = -.50, p< .001), emotional intolerance (β = -.167, p< .05), achievement frustration (β = -.126, p< .05) negatively predicted Emotional regulation (emotional reappraisal). The value of R^2 shows that discomfort intolerance, emotional intolerance, and achievement frustration (social intolerance) explained a total of 53.5 % variance in emotional regulation (emotional reappraisal). The entitlement could not significantly contribute in predicting emotional regulation. The above stated prediction is significant as F (41.72) and p< .01.



Note. The showed figure are *β values*, R^2 and each value is positioned above its corresponding significance value (*p < 0.05, **p< 0.01, ***p< 0.001). Figure schematic demonstration of the assumed model of estimation (social intolerance) of outcome (emotional regulation).

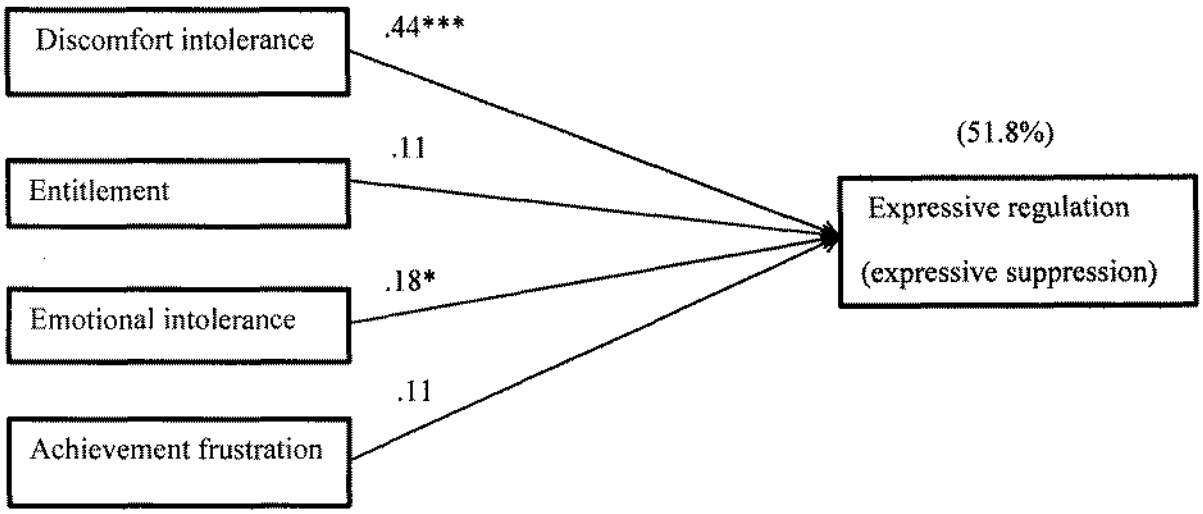
Figure 5. Elucidates a visual presentation of best predictive model of emotional regulation (emotional reappraisal).

Table 22
Multiple regression analysis to test effects of social intolerance on Emotional regulation (expressive suppression) (N = 150)

	Emotional regulation (expressive suppression)	
		Model 1
Variables	*B*	*95 % CI*
Constant	-4.833	[-8.47 , 1.18]
Discomfort intolerance	.450	[.275 , .625]
Entitlement	.111	[-.032 , .254]
Emotional intolerance	.185	[.027, .342]
Achievement frustration	.151	[-.022 ,.324]
R^2	0.518	
F	38.99	

Note. CI = confidence interval.
*$p < 0.05$, **$p < 0.01$*

Regression analysis is computed to explore the predictive features of social intolerance subscales on Emotional regulation (expressive suppression). As shown in the table 22, the discomfort intolerance (β = .44, p< .001), emotional intolerance (β = .18, p< .05), achievement frustration (β = .11, p< .05) positively predicted Emotional regulation (expressive suppression). The value of R^2 shows that discomfort intolerance, emotional intolerance, and achievement frustration (social intolerance) explained a total of 51.8 % variance in emotional regulation (expressive suppression). The entitlement could not significantly contribute in predicting emotional regulation. The above stated prediction is significant as F (38.99) and p< .01).



Note. The showed figure are *β values*, R^2 and each value is positioned above its corresponding significance value (*p < 0.05, **p< 0.01, ***p< 0.001). Figure schematic demonstration of the assumed model of estimation (social intolerance) of outcome (emotional regulation).

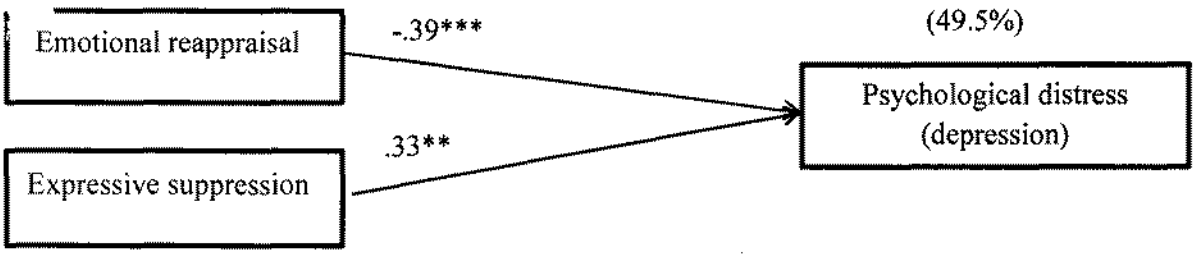
Figure 6. Elucidates a visual presentation of best predictive model of emotional regulation (expressive suppression).

Table 23
Multiple regression analysis to test effects of emotional regulation on Psychological distress (depression) (N = 150)

	Psychological distress (depression)		
			Model 1
Variables	*B*		*95 % CI*
Constant	14.27		[7.058 , 21.50]
Emotional reappraisal	-.278		[-.449, -.106]
Expressive suppression	.336		[.087 , .586]
R^2		0.495	
F		57.04	

Note. CI = confidence interval.
*$p < 0.05$, **$p < 0.01$*

Regression analysis is computed to explore the predictive features of emotional regulation subscale on psychological distress (Depression). As shown in the table 23, the emotional reappraisal (β = -.396, p< .001) positively and expressive suppression (β = .330, p< .01), negatively predicted psychological distress (depression). The value of R^2 shows that Emotional reappraisal, and Expressive suppression (emotional regulation) explained a total of 49.5 % variance in psychological distress (depression). The above stated prediction is significant as F (57.04) and p< .01.



Note. The showed figure are *β values*, R^2 and each value is positioned above its corresponding (*$p < 0.05$, **$p <$ 0.01). Figure schematic demonstration of the assumed model of estimation (emotional regulation) of outcome (psychological distress).

Figure 7. Elucidates a visual presentation of best predictive model of Psychological distress (depression).

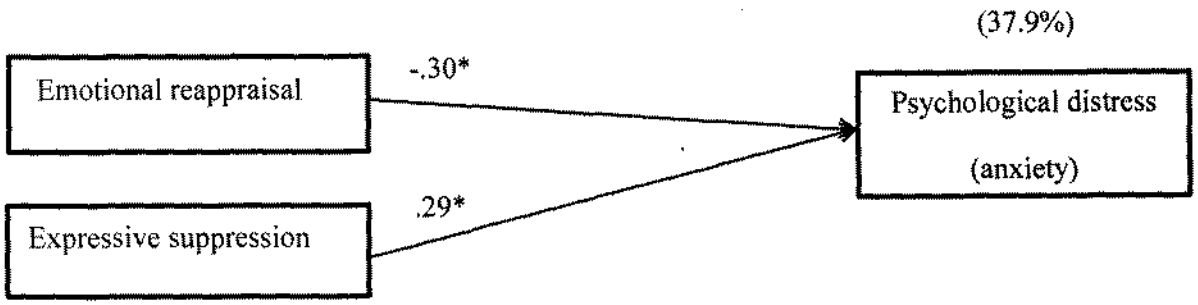
Table 24

Multiple regression analysis to test effects of emotional regulation on Psychological distress (anxiety) (N = 150)

	Psychological distress (anxiety)	
		Model 1
Variables	*B*	*95 % CI*
Constant	11.811	[4.00 , 19.61]
Emotional reappraisal	-.202	[-.387, -.016]
Expressive suppression	.288	[.018, .557]
R^2	0.340	
F	37.91	

Note. CI = confidence interval.
*$p < 0.05$, **$p < 0.01$*

Regression analysis was computed to explore the predictive features of emotional regulation subscale on psychological distress (anxiety). As shown in the table, the emotional reappraisal (β = -.304, p< .05) positively and expressive suppression (β =.298, p< .05), negatively predicted psychological distress (anxiety). The value of R^2 showed that Emotional reappraisal, and Expressive suppression (emotional regulation) explained a total of 34 % variance in psychological distress (anxiety). The above stated prediction is significant as F (37.91) and p< .01.



Note. The showed figure are *β values*, R^2 and each value is positioned above its corresponding (*$p < 0.05$, **$p < 0.01$). Figure schematic demonstration of the assumed model of estimation (emotional regulation) of outcome (psychological distress).

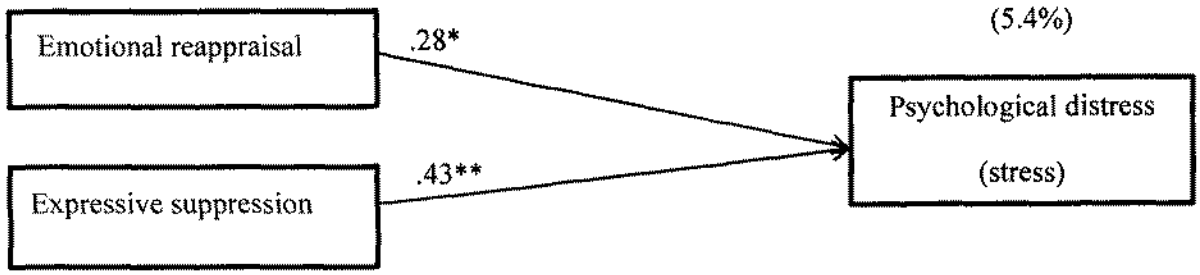
Figure 8. Elucidates a visual presentation of best predictive model of Psychological distress (anxiety).

Table 25
Multiple regression analysis to test effects of emotional regulation on Psychological distress (stress) (N = 150)

	Psychological distress (stress)	
		Model 1
Variables	*B*	*95 % CI*
Constant	4.958	[-2.564 ,12.47]
Emotional reappraisal	.154	[-.025 , .333]
Expressive suppression	.344	[.084 , .604]
R^2	0.054	
F	4.22	

Note. CI = confidence interval.
*$p > 0.05$, **$p < 0.01$*

Regression analysis is computed to explore the predictive features of emotional regulation subscale on psychological distress (stress). As shown in the table 25, the emotional reappraisal (β = .288, p < .05), expressive suppression (β =.443, p = .01), positively predicted psychological distress (stress). The value of R^2 shows that Emotional reappraisal, and Expressive suppression (emotional regulation) explained a total of 5. 4 % variance in psychological distress (stress). The above stated prediction is significant as F (4.22) and p= .01.



Note. The showed figure are *β values*, R^2 and each value is positioned above its corresponding (*p <0.05, **p= 0.01). Figure schematic demonstration of the assumed model of estimation (emotional regulation) of outcome (psychological distress).

Figure 9. Elucidates a visual presentation of best predictive model of Psychological distress (stress).

Moderation analysis is carried out in order to explore the effect of emotional regulation as moderator in relationship between social intolerance and psychological distress. The moderation (emotional regulation) has its impact on the relationship between social intolerance and psychological distress and the moderation helped to highlight the manner of relationship directions. As according to Baron and Kenny(1986) the moderating factors can affect the association between the predictor and the outcome variable.

Moderation is an attempt to explore whether the relationship between the social intolerance and emotional regulation is significant predictor of outcome variable(psychological distress) after controlling the effect of some independent variables and moderator. As Kim, Kaye, and Wright(2001) have highlighted that the moderator can increase and decrease the relation between the independent and dependent variable and can even alter the direction of the relationship between the variables from positive to negative and vice versa. For highlighting the moderation effect the analysis is carried and the results are highlighted in the table 26 and 27.

Table 26

Hierarchical multiple regression analysis predicting Psychological distress (depression, anxiety, and stress) from social intolerance (N = 150)

		Dependent variables					
		Depression		Anxiety		Stress	
Moderators	Predictors	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. *$p<.05$, **$p<.01$, ***$p<.001$

Table 26 establishes that moderating effect of emotional regulation on the relationship between social intolerance and psychological distress (depression) among cardiac patients. In the model 1, the value of ΔR^2 highlighted that control variable (age, gender and family structure) explain (0.4 %) variance of psychological distress (depression). In model 2, the discomfort

intolerance and emotional reappraisal explains (54.4%) variance of psychological distress. Whereas, the fact highlighted in model 3, the addition of emotional reappraisal as moderator with discomfort intolerance explain total of (57.4%) variance. The table shows that moderator (emotional reappraisal) increase (1.6%) variance. All the highlighted interaction are non-significant that highlighted that no moderation occurred except for the relationship between discomfort intolerance and psychological distress (depression).

Table 26 establishes that moderating effect of emotional regulation on the relationship between social intolerance and psychological distress (anxiety) among cardiac patients. In the model 1, the value of ΔR^2 highlighted that control variable (age, gender and family structure) explain (6.1 %) variance of psychological distress (anxiety). In model 2, the discomfort intolerance, achievement frustration and emotional reappraisal explains (38.2%) variance of psychological distress (anxiety). Whereas, the fact highlighted in model 3, the addition of emotional reappraisal as moderator with discomfort intolerance, and achievement frustration explain total of (47.3%) variance. The table shows that moderator (emotional reappraisal) increased (3%). All the highlighted interaction are non-significant that highlighted that no moderation occurred except for the relationship between achievement frustration and psychological distress (anxiety).

Table 26 establishes that moderating effect of emotional regulation on the relationship between social intolerance and psychological distress (stress) among cardiac patients. In the model 1, the value of ΔR^2 highlighted that control variable (age, gender and family structure) explain (1.6%) variance of psychological distress (stress). In model 2, the entitlement and emotional reappraisal explains (6.3%) variance of psychological distress (stress). Whereas, the

fact highlighted in model 3, the addition of emotional reappraisal as moderator with discomfort intolerance, and achievement frustration explain total of (15.3%) variance. The table shows that moderator (emotional reappraisal) increased (7.5%). All the highlighted interactions are non-significant that highlighted that no moderation occurred except for the relationship between entitlement and psychological distress (stress).

Table 27

Hierarchical multiple regression analysis predicting Psychological distress (depression, anxiety, and stress) from social intolerance (N= 150)

		Dependent variables					
		Depression		Anxiety		Stress	
Moderators	Predictors	ΔR^2	*B*	ΔR^2	*B*	ΔR^2	*B*
Expressive suppression	Step 1	.004		.061		.016	
	Control variables						
	Step 2	.544		.388		.070	
	Discomfort intolerance		.20*		.24**		-.14
	Entitlement		.12		-.11		.14
	Emotional intolerance		.11		-.03		.12
	Achievement frustration		-.06		.29**		.08
	Expressive suppression		.56***		.34**		.01
	Step 3	.031		.013		.048	
	Discomfort intolerance ×Expressive suppression		.03		.01		-.00
	Entitlement × Expressive suppression		.01		.00		-.02
	Emotional intolerance ×Expressive Suppression		.00		-.00		-.00
	Achievement frustration × Expressive suppression		.00		-.03		-.02
	Total R^2	.578		.463		.133	

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

Table of multiple hierarchical regression established that moderating effect of emotional regulation (expressive suppression) on the relationship between social intolerance and psychological distress (depression) among cardiac patients. the result showed that none of the

interaction is significant that suggest that no moderation occurred in the relationship between social intolerance and psychological distress (depression, anxiety, and stress).

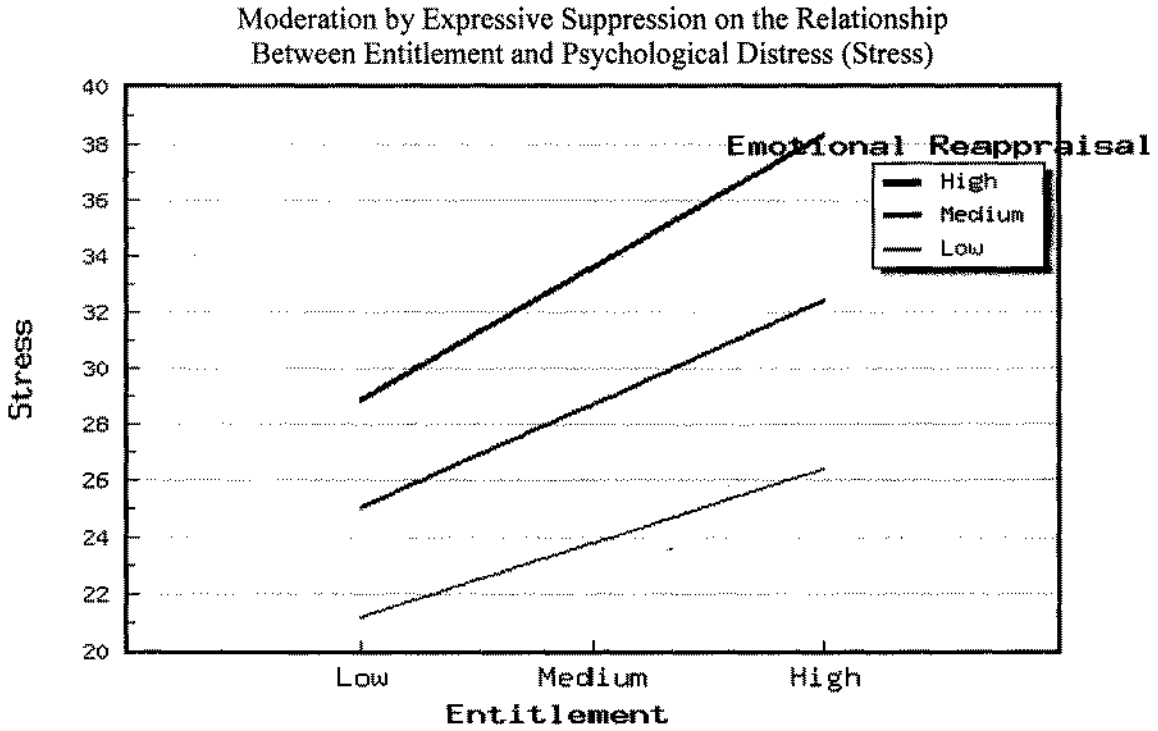


Figure 10. Moderation by expressive suppression on the relationship between entitlement and psychological distress (stress)

Figure 10 shows that high level of emotional reappraisal is entitlement is positively related with stress. Above figure shows that high level of emotional reappraisal is related with low level of entitlement and low level of stress. As far as mod graph is concerned at different level of entitlement there is difference on psychological distress (stress) across different level of emotional reappraisal low to high level.

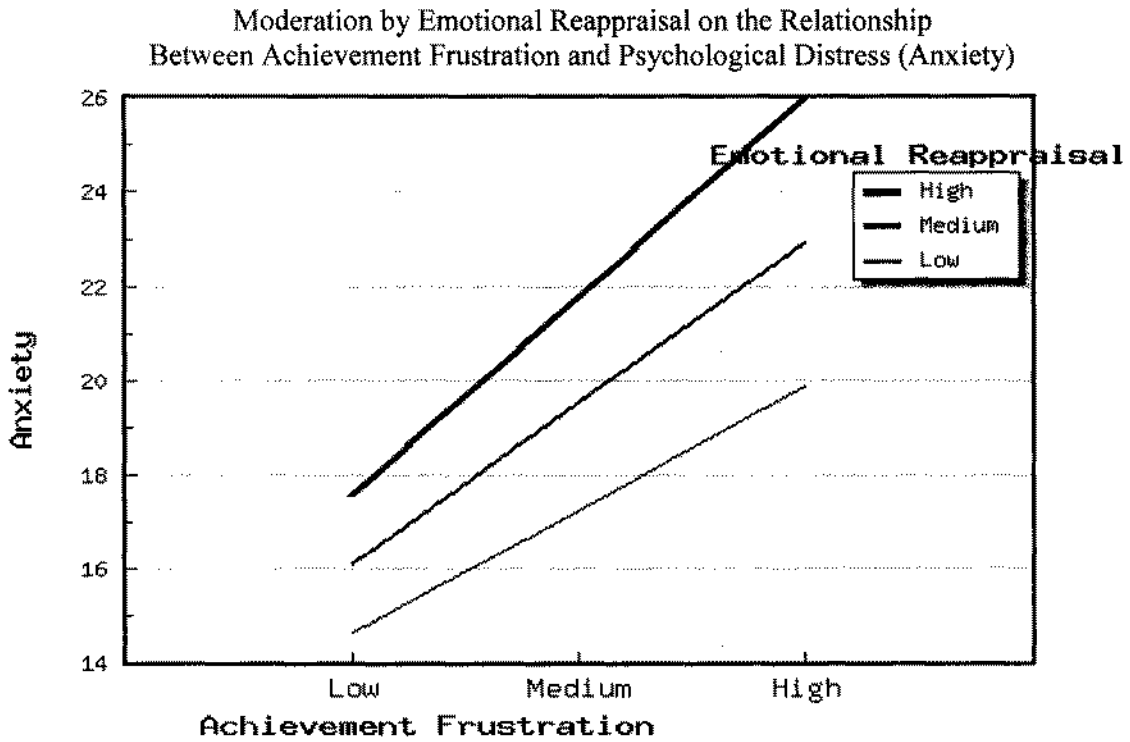


Figure 11. Moderation by emotional reappraisal on moderation by emotional reappraisal on the relationship between achievement frustration and psychological distress (anxiety)

Figure 11 shows that at low level of emotional reappraisal and achievement frustration is positively related with psychological distress (anxiety). While cardiac patients with low level of emotional reappraisal there is positive relationship between achievement frustration and anxiety.

DICUSSION

Chapter-IV

DISCUSSION

It is common observation that socially intolerant individuals are less open to clarification and acceptance. They are more vulnerable to develop feelings of stress and downheartedness. This imbalanced socio-emotional situation leads to psychological distress. The same happens with the cardiac patients. The aim of this study was to find out the moderating role of emotional regulation in the relationship between social intolerance and psychological distress among cardiac patients.

To measure social intolerance Frustration Discomfort Scale (Harrington, 2005) was selected. Whereas, emotion regulation questionnaire to assess emotional regulation (Gross & John, 2003). To measure psychological distress depression anxiety stress scale (Levibond & Levibond, 1995) was administered. The basic intention in the exploration of different demographic was to highlight the effect that social demographic can influence the individual life specially when suffering from serious medical issues like cardiac condition. To fulfill the requirement the data was collected from different cardiac units/hospitals located in Rawalpindi and Islamabad. The age range of cardiac patient ranged from 20-60 years after the review of literature. After the data collection the data was analyzed thought different statistical analysis to support the trends of hypothesized variables relationship.

Psychometric Properties of Frustration Discomfort Scale, Emotional Regulation Questionnaire and Depression Anxiety Stress Scale

To evaluate the internal consistency of scales, Cronbach's alphas were calculated for each of the subscales. Alpha reliabilities of the subscales utilized in present study were found to

be acceptable according to Nunnally and Bernstein's (1994) criterion. The alpha reliability of frustration discomfort scale comprised of four subscales and thus gathered data for discomfort intolerance, entitlement, emotional intolerance and achievement frustration. The alpha reliability of subscales of frustration discomfort scale ranged from (.74 to .91). The alpha reliability of subscales of emotional regulation questionnaire ranged from (.93 to .95). The alpha reliability of subscales of depression anxiety stress scale ranged from (.88 to .93). The alpha reliabilities of the study instrument showed that all the scales are internally reliable and consistent. Hence, they are reliable and valid measure of constructs for the respondent of this research. Further the skewness for the subscales were detected to determine the suitability of the data rendering to the expectations of the normality. The values of all three scales are exposed to be quite suitable as values of frustration discomfort scale, emotional regulation questionnaire, and depression anxiety stress scale designated that data was normally distributed (Table 8).

Correlation between Social Intolerance, Emotional Regulation, and Psychological Distress

The first objective of the study is accepted. Results showed that, discomfort intolerance, entitlement, emotional intolerance, and achievement frustration had significant positive relationship with depression anxiety and stress. Social intolerance is denial to accept the variance between realism and emotional requirements, as high intolerant individual believes that they are unable to tolerate problems in goal attainment, which play its significant role in the development of social, and emotional difficulties. The depressed mood in highly intolerant individual is linked to feelings of insignificance believing that tolerating life is difficult, whereas, anxiety feeling is of fear of getting disapproval and fear of intolerance of anxious feelings. According to the rational emotional behavior therapy (REBT) feelings of intolerance of

frustration and rather than tolerance of demands leads to feeling of depression and anxiety (Bond & Dryden, 2000).

Previous studies have indicated that the social intolerance like discomfort intolerance, entitlement, emotional intolerance and achievement frustration increase feeling of distress due to inability to handle the frustrating situation and persistent intolerant experience increase feelings of higher distress (Schienele, Köchel, Ebner, Reishoxfer, & Schäfer, 2010). An intolerant situation increase the sensitivity to discomfort, emotional intolerance, belief of entitlement and achievement frustration in turn exaggerate the feelings associated with the situation like depressive feeling, anxious feeling and stress which make the situation more unbearable (Harrington, 2006; Roemer, Salters, Raffa, & Orsillo, 2005; Martin & Dahlen, 2004) are thus supporting the same notion (Table 9).

The aim of the present study was to explore the relationship between emotion regulation (emotional reappraisal and expressive suppression) and psychological distress. Emotional maladaptive thinking pattern's, inability to focus on clearly on the adaptive thinking manner lead to increase in psychopathology (Kring & Sloan, 2010; Watson, 2005). Similarly better emotional mechanisms help to alter the manner of thinking similarly assist in upholding the positive emotions and give resilient energy to deal with distress feelings (Carthy et al., 2010). The individual with emotional reappraisal develop intentional flexibility, as they rapidly shift attention from adverse situations to more positive feelings. As these individuals attempt to maintain the positive response, attempt to modify, broaden attention from one stimuli to other as per contextual demand such individual experience less level of psychological distress (Etkin & Schatzberg, 2011; Etkin, Prater, Hoeft, Menon, & Schatzberg, 2010) (Table 9).

The individuals with expressive suppression experience impairment in executive functioning, negative cognitive biases, and hyper vigilance in response to stress full situation (Cacioppo & Hawkley, 2009). These individuals falsify the emotional experience by hiding their true feelings and sustain at internal schemes and thus develop more distress feelings of depression, anxiety and stress (Patron et al., 2013). The continuous use of expressive suppression enables the individual to utilize the maladaptive strategies like intentional rigidity by preoccupying or evading both interoceptive and negative emotional stimuli and develop high level of depression anxiety and stress (Beatty & Lambert, 2013; Sturman & Mongrain, 2010; Marshall, Zuroff, McBride, & Bagby, 2008; Watkins, 2008) (Table 9).

Mean Differences on Social Intolerance, Emotional Regulation and Psychological Distress

Gender. The fourth objective of the study was to investigate the gender differences in social intolerance, emotional regulation and psychological distress among cardiac patients. Findings of the present study showed that there were significant mean difference in social intolerance (discomfort intolerance, and achievement frustration) among male and female cardiac patients. Discomfort intolerance, is a domain where individual has high tendency to be intolerant toward discomfort, demand higher level of ease and comfort in life tasks and experience higher feelings of intolerance if problems persist and thus experience discomfort in life demands. Discomfort individual also measures the individual ability to deal with difficult task in ease and experience higher social intolerance if the individual has to deal with those tasks. Similarly, the achievement intolerant individual believes that he needs to achieve the life goals and tasks with ease and comfort.

Mean differences of gender for social intolerance showed that male cardiac patients tend to be more discomfort intolerant and achievement intolerant as compared to female patients. The male cardiac patient in Pakistani society experience more discomfort intolerance due to physical state and life demands. Literature shows that discomfort intolerance is inability to deal with discomfort feelings (Harrington, 2005). Hence, if cardiac patients score high on discomfort intolerance they deal with frustrating situation with more intolerant feelings. In general observation the male patients experience more belligerent issue and experience more discomfort as compared to female patients. Female cardiac patient in Pakistani society tend to compromise with each discomfort situation. Similarly the male cardiac patient in Pakistani society are more job oriented and most of female are not job oriented the male cardiac patients due to higher job demands and physical state experience more achievement frustration if the desired tasks are not attained. Harrington (2005) has examined that no significant mean difference exist among male and female on domain of entitlement and emotional intolerance as social intolerance among male and female counterparts (Table 10).

Furthermore, the result indicated that there is significant mean difference in emotional regulation (i.e., emotional reappraisal and expressive suppression) among male and female cardiac patients. The female cardiac patients are higher on emotional reappraisal as compare to male cardiac patients. In the cardio logical arena, literature has suggested that better emotion-focused strategies of reappraisal, aim at handling one's expressive response to stressful life event, which are particularly significant and operative in the stressful and vulnerable time of acute cardiac issue among females (Roohafza, Talaei, Pourmoghaddas, Rajabi, & Sadeghi, 2012). In Pakistan society the females utilize flexible approach and modify the emotional response for adjustment to deal with life stresses as compared to male patients these findings have been

reported in study by (Garnefski, Teerds, Kraaij, Legerstee, & Van den Kommer, 2004). The emotional reappraisal help the patients in dealing with cardiac condition help them adjust to life changes and assist in adjustment to acceptance of physical illness (Mahoney & Granvold, 2005). As male patients experience more frustrating feelings and are less effective in utilizing the flexible approach to deal with life event's, These findings are in accordance to previous researches (Chiavarino et al., 2012; Casey et al., 2010; Gratz & Romer, 2004) (Table 10).

The results showed that male cardiac patients are higher on expressive suppression as compare to female cardiac patients. Expressive suppression mask true feelings by hiding the true feelings. Moreover, the expressive suppression creates incongruence, in individual true feeling s and outer expression (Rogers, 1951). This sagacity of faking not being accurate to oneself, and others, lead to negative feelings as individual feel alienated not form his own self but from other as well. In Pakistan the male dominance forces the males to hide their true feelings about their illness and social situation to show their masculinity. Usually Pakistani males are expected to pretend to be strong and feel uncomfortable in revealing true feelings to the others. As it will show their weakness so males cardiac patients suppress more their emotions as compare to female patients as female are more communicative about their true feelings to people around them as compare to females. These findings are in accordance with previous researches which have found that female can better emotionally regulate their emotions as compare to male counterparts (Morris et al., 2007; Eisenberg et al., 1998; Hops, 1995). As similar to westerns researches (McRea et al., 2012; Luna et al., 2010) which have found that no difference exists on variable of emotional regulation on gender. Other Pakistani researchers have found similar results (Jabeen, Haque, & Riaz, 2013). However current research have found out that gender

difference exist as female are higher on emotional reappraisal and male are found to be higher on expressive suppression (Table 10).

Furthermore, the result showed that there are significant mean differences in depression, anxiety and stress in male and female cardiac patients. Male are significantly higher on depression as compared to female cardiac patients. In industrialized countries, the average life expectancy is consistently lower for men than for women (Vermura & Pisa, 1988). As literature suggested that male experience more job strain and are likely to experience more depressive feelings due to economic and financial constraints. Although all these difficulties, and affiliation issues are found to be prominent in both male and female cardiac patients (Orpana et al., 2009). Here, cultural aspects are prominent as males in Pakistani society have more economic responsibilities with looking after the economic burden of the whole family with fulfilling the social duties of home as well. It can be assumed the cardiac illness makes the male cardiac patient to feel more helpless, they tend to develop more devaluation about life due to inability to fulfill the required duties making the male cardiac patient develop depressive feelings as compare to female patient. These findings are in accordance with the previous researches (Boyles, Michalek, & Suarez, 2006; Nicholson, Kuper, & Hemingway, 2006; Blumenthal et al., 2003; Vaccarino et al., 2001) (Table 10).

Similarly the female cardiac patients are higher on anxiety as compared to male cardiac patients. Literature also suggest that females are prone toward anxiety as females have more problems with children, house hold responsibilities, and become easily anxious at recent life events, with almost every life they develop more fear and apprehension about being failure (Orpana et al., 2009). In case of female cardiac patients they feel more anxious because due to their cardiac ailment the females are unable to perform home chores as effectively as before and

the critical comments of family as well the fear of not fulfilling the demands and care of spouse and children. Thus, this situation makes the female cardiac patient prone toward development of anxiety feelings. Other researches have also highlighted the same idea that females exhibited higher mean values of anxiety and sleep problem than males (Meijer et al., 2013; Sung et al., 2012; Breitbart et al., 2009; Ladwig, 2000) (Table 10). Although no significant mean difference are observed in stress among male and female cardiac patients. It is seen that different demographic features and different life issues upsurge the features of mental distress and anxiety in cardiac patients. In case of age, cardiac patients with higher age have been found to be linked with greater levels distress i.e., anxiety and depression (Liao, Chen, Chen, & Chen, 2008; Novy, Price, Huynh, & Schuertz, 2001). Similarly, other studies on contrary highlighted that young women particularly suffer from higher level of depression, anxiety and stress feelings (Steffens, Wright, Hester, & Andrykowski, 2011; Chen et al., 1996; Seckel & Birney 1996). As far as gender is concerned females suffered from more psychological distress as equated to male patients (Orpana, Lemyre, & Gravel, 2009). Western researches have indicated that females are higher on psychological distress as compare to male counterparts. Similar trend of gender difference exist in Pakistani researches (Munir, 2014; Bashrat, 2010). However, current study has found that depression is more prominent in males, anxiety is prominent in females and no significant difference exist on variables of stress among Pakistani cardiac patients (Table 10).

Family structure. Mean difference across family structure for social intolerance showed that nuclear family cardiac patients tend to be more discomfort intolerant, and emotional intolerant as compare to cardiac patients of joint family structure. In the nuclear family structure the cardiac patients feel more discomfort and intolerance feelings due to inability to share their feelings and lack of assistance makes them prone toward feelings of higher discomfort and

intolerance. Whereas the available help and social support in social situation have been linked with comfortable feeling with better intolerance to deal with frustrating situation. However, the cardiac patients of joint family structure experience more achievement frustration as compare to nuclear cardiac patients. As patients in joint family structure have to maintain a powerful position in the family, with higher goals and economic constraints due to more number of family member and feel frustrated if the desired goals are not attained. Whereas the cardiac patients in nuclear family structure feel less resistance in attaining the desired goals because of less resistant factors and independence of decision in goals decision make the patient less achievement oriented (Table 11).

The result also showed that there are non-significant mean differences across emotional regulation in both nuclear and joint family structure. Cardiac patient of both family structure try to adjust to the social situation with using suppression to minimize the emotional expressive of adverse responses to better socially adjust in family setting. The result also revealed that depression was higher in cardiac patients of joint family structure as compare to patient of nuclear family structure. In joint family structure the patients experience more strain feel helpless as unable to contribute in daily activities of family functions. Due, to social restrictions they have difficulty in true expression of their emotions also with number of conflicting issues make patients vulnerable toward depressive feelings. Whereas the anxiety is more evident in the nuclear family structure as compare to joint family structure. The feelings of loneliness, with maximum duties and less emotional support by more family members, work strain with physical ailment make the anxious feelings more prominent. These findings are in accordance with researches (Jaclene, Zauszniewski, & Bekhet, 2014; Goossens, Wijngaarden, Knoppert-Van Der Klein, & Achterberg, 2008; Lam, Donaldson, Brown, & Malliaris, 2005; Yu et al., 2004).

However, no significant mean differences are observed in family structure on variable of stress (Table 11).

Age. Mean differences on age were also sought (see Table 12) within social intolerance, emotional regulation, and psychological distress. In the present study the age was divided into 4 categories of (e.g., 20-30, 31-40, 41-50 and 51- 60). The age categories are divided after literature review (Sharma & Kandpal, 2014). Result of current study showed significant mean difference in social intolerance, emotional regulation and psychological distress among cardiac patients.

The findings of the current study showed that there are significant mean differences on discomfort intolerance, entitlement, emotional intolerance and achievement frustration. As the feeling of discomfort and unease increase, rigid belief that desire should be met without any resistance. Similarly the cardiac patients of higher age are more emotionally frustrated as they feel the uncomfortable emotions are intolerable, and belief that all goals are desired to be attained without any hesitation. Whereas, the physical ailment with the age changes make the higher age cardiac patient more vulnerable toward higher intolerance whereas, the younger cardiac patients have resilient power as well less age acts as buffer against the frustrating feelings. Being young and energetic helps them to deal with frustrating situations enthusiastically. These findings are in accordance with the previous studies which have showed that social frustration higher means are related with higher age level (Liao et al., 2008; Novy et al., 2001).

Furthermore results showed that cardiac patients with less age are related with better reappraisal ability as young cardiac patients have more flexible approach with ability of

adjustment, and modify the schemes as per situation change. Similarly these findings are in accordance with previous researches which have showed emotional regulation is being highest in younger ones (Casey et al., 2010; Silk et al., 2003) (Table 12). Other studies have reported that cognitive reappraisal improves as the age gets mature. Studies also highlighted that younger age is related to better reappraisal of emotion but higher age is less associated with reappraisal but higher age cardiac patients have ability to learn from experience and maturity as compared to reappraisal ability (Boelen & Reijntjes, 2008).

Moreover, as the reappraisal is less the cardiac patient utilizes more expressive suppression that is evident in current study as expressive suppression is being highest in higher age showing that less age cardiac patients exploit more reappraisal ability and higher age cardiac patient utilized more expressive suppression to deal with frustrating situation (Pitskel et al., 2011; Durston et al., 2006; Casey et al., 2005) (Table 12).

Research suggests that treatments for depression among individuals with chronic physical diseases do not improve physical disease significantly, ignoring emotional condition of the patient. The result of the research highlights the need of the management of co-morbidity and better adopted emotional regulatory mechanism, e.g., reappraisal and emotional suppression that will help to improve the depressive and anxiety clinical outcome especially among the patients with heart problems. Researches, highlighted age relation with regulation of negative affect are a marker for depression, and anxiety disorders, that have high rates of onset in adolescence (Glied & Pine, 2002). Second, the behavioral and neural bases of regulation of negative affect are better understood in adults than regulation in an earlier age (Ochsner & Gross, 2008).

The result of the current study is indicative of the proposed idea that psychological distress (e.g., depression anxiety and stress) was found to be more common in younger subjects

(Table 12). This is constant with findings of (Mahoney, 2001; Vaccarino et al., 2001). As the younger cardiac patient go through new diverse treatment method with new life changes and exposure to physical illness make the young cardiac patient prone toward psychological distress. However, contrary studies have showed that psychological distress (anxiety) is common in elder cardiac patients (Steffens et al., 2011; Liao et al., 2008; Novy et al., 2001; Campbell, Banner, Konick-McMahan, & Naylor, 1998; Howthorne & Hixon, 1994). This can be attributed to factors like loneliness, feeling of helplessness with reduced fitness and strength. This results in reduced physical ability to continue their daily activities, usual role and social functioning. Irregularity in daily functions and life habitual changes lead to feelings of low self- esteem, anxious feelings and powerlessness. As younger patients with cardiac issues, experience inability to cope with the physical and expressive confines which are caused by new severe physical ailment is unacceptable for the younger patients this increase their psychological distress. There may also be more reporting of symptoms by younger patients as they may perceive that their heart failure interferes with their functional capabilities and expectations thus increasing their distress.

Cardiac issues. Mean differences were also computed for the cardiac issues (e.g., cardiac failure, chest pain, bypass surgery and cardiac disease) with social intolerance, emotional regulation and psychological distress among cardiac patients (Table 14). The discomfort intolerance, entitlement, emotional intolerance and achievement frustration are significantly higher in cardiac disease in comparison to other cardiac issues. Intolerance is dispositional characteristic resulting from the negative life belief about the uncertainty. The patients with cardiac illness experience more frustration in social situation that in turn affect the higher social intolerance is related to changes in life. Patients with cardiac disease have more diverse

treatment method with prolong hospitalization required as well as multiple incidences of physical state like breathlessness make the patient vulnerable toward high frustrating situation (Swenson & Clinch, 2000; Seemungal, 1998; Williams, 1989). The higher severity issues of cardiac state and lack of emotional, discomfort intolerance feelings of higher entitlement and higher frustrating situation make the cardiac severity more higher in cardiac patients suffering from cardiac disease (Swenson & Clinch, 2000).

The results were also analyzed for emotional regulation against the cardiac issues. The result showed that cardiac patients of bypass surgery experienced more emotional reappraisal as compared to other cardiac issues (Table 14). The emotional regulation mechanism helps to reduce the emotional response, help to sustain the positive emotional response and increase the positive emotions (Gross, 2001). The cardiac patients of bypass surgery go through the long treatment procedure including the time duration required for waiting of transplant procedure that make the bypass surgery patient ready for the treatment method including the ability to adapt and better adjust to situation with the cardiac surgery (Wadlinger & Isaacowitz, 2011). Similarly, the expressive suppression is observed to be higher in patients of chest pain are higher on expressive suppression as compare to other cardiac issues (Table 14). The cardiac patients of chest pain experience more altering state due to recurrent pain issues with the anxious feelings and the physical state is attributed to different physical state making patients to suppress emotions as sometime the patients attempt to minimize the emotional issues associated with the chest pain (Wadlinger & Isaacowitz, 2011 ; Wulsin & Singal, 2003).

Mean difference across cardiac issues for psychological distress reveals that depression is more prominent in patient of cardiac disease as compared to other cardiac issues (Table 14). There is consistent evidence that depression is an important and independent risk factor for the

onset, the adverse course and outcomes in patients with coronary heart disease (CHD) (Carney et al., 2005). As cardiac disease develop, different medical signs develop, like exhaustion, syncope and trembles. Once they are suggestive, the cardiac disease harshly restricts the routine of daily life which often turn out to be and unavoidable issue (Vahanian, Iung, Himbert, & Nataf, 2011). Specifically, it has been reported that depressive symptoms are associated with roughly a 60% greater likelihood of exhibiting CHD (Wulsin & Singal, 2003). Moreover, patients with depression are at greater risk to have a major cardiac event within 12 months of the diagnosis of CHD (Lespérance et al., 2000; Carney et al., 1988).

Similarly the result showed higher mean on anxiety among patients of chest pain as compare too other cardiac issues (Table 14). Similar to the finding of the other researchers (Juergens, Seekatz, Moosdorf, Petrie, & Rief, 2010) which verified that the cardiac patients going through prolong diverse treatment method and vulnerability toward heart failure with multiple pain episode make the chest patients experience emotional state of increase apparent stress, apprehension about anxiety, ambiguity, fear of major cardiac issues with disturbed mood state increase anxiety feelings. The result showed stress mean difference to be higher in patients of bypass surgery as compare to other cardiac illness. As the treatment procedure of bypass with the time duration make the bypass patients experiencer more stress feelings are been highlighted in research (Detweiler-Bedell et al., 2008; Silbert et al., 2001).

Duration of illness. The mean differences across duration of illness for social intolerance showed that there are no significant mean difference on duration of illness (e.g., less than 1 year, 1-3 years and 4-6 years) and social intolerance (Table 15). However the discomfort

intolerance is overall higher in cardiac patients on duration of illness. Discomfort feelings are associated with feelings of ease from hassles with lack of efforts and inability to tolerate the inconvenience. The cardiac ailment gets prolong the social intolerance also increase due to ailment effect. The result demonstrated that no significant mean differences exist on emotional regulation strategies (e.g., emotional reappraisal and expressive suppression) (Table 14). Emotional regulation is internal and external response to deal with the stressful situation by modifying, and evaluating the response once these responses develop in individual they don't tend to change. Similarly that's the reason result highlighted no mean difference across the duration of illness as once the cardiac patient adopt any emotion regulatory strategy it keep persistent.

The mean difference across depression, anxiety, and stress highlighted that depression is seen to be evident in initial duration of illness. However the researches have highlighted that depression tend to increase as the duration of illness tend to increase making the cardiac patients vulnerable to the major depression disorder (Matcham et al., 2014; Saddique, 2011; Jaing, 2008). Similarly the cardiac patient also experience different stressors like stress of side effects, well-being of significant others, affiliation needs, concern for the welfare of their younger children and many others. The duration increases the guilt for considering themselves accountable for their disease and for causing distress in their children's lives, concerns regarding the method of disease disclosure to their children, and personal pain due to their perception of falling short of their life responsibilities increase the stress and anxious feelings in cardiac patients as the duration of illness prolong (Williams, 2004). These findings are in accordance to

Physical illness. Mean differences were computed for physical illness for social intolerance among cardiac patients. Results revealed that cardiac patients with hypertension experienced more social intolerance as compared to cardiac patients experiencing other physical ailment. The result revealed that social intolerance mean is higher in hypertension patients as compared to patients with other physical ailments. Hypertension is condition in which the systolic blood pressure is higher than or equal to (140mmHg) and also when the diastolic (BP) blood pressure is greater than (80 mmHg). The blood pressure (BP) is condition in which the blood exerts pressure on the blood vessels (Siyal et al., 2014; Eurich et al., 2007). Social intolerance is mental state in which the individual experiences higher bigotry about the social situation additionally the physical ailment like hypertension increases the feelings of discomfort in cardiac patients. Similarly, the addition of other physical illness frustrates the situation and perception about the health gets deteriorated. The mean difference on emotional regulation reveled that emotional reappraisal is apparent in the patients of hypertension as compare to other physical ailments. Similarly, the suppression is revealed to be more prominent in patients with hypertension with diabetes. Diabetes is severe medical problem that makes the cardiac illness more pathological and alarming for the cardiac patients. As a result patients become vulnerable toward suppression by making the internal feelings and hiding the true emotional responses.

The mean differences across psychological distress revealed that depression anxiety and stress is prominent in cardiac patients. As research by (McDonald et al., 2009) highlighted that cardiac condition affected by additional established risk factors of diabetes, dyslipidemia and hypertension with age more than 40 years increase the psychological distress among cardiac patients. The findings of the current study are in accordance of the (Siyal et al., 2014) that highlighted that 3.2 % patients with cardiac condition suffered from hypertension, 8.40 %

patients were diabetics, making the cardiac patient vulnerable toward prolong effect of experience of negative distress like wretchedness, annoyance, fault, and fear that lead to depression, anxiety and stress (Table 16).

Predictive Relationship among Social Intolerance, Emotional Regulation and Psychological Distress

The social intolerance or low social tolerance is (LFT) is lack of ability to deal with reality when it is confronted with the desires and expectations which are communicated in form of demands and such partialities are favored for contented and perfect life (Chipea, Negrutia, & Trip, 2012). The negative belief about uncertainty and lack of acceptance with reality are considered risk factors for distress (Zinchenko et al., 2013). Theoretical perspective and empirical researches have highlighted the role of social intolerance and psychological distress (Stankovic & Vukosavljevic- Gvozden, 2011; Chen & Hong, 2010).

In the present study, the social intolerance was measured by frustration discomfort scale. It has been proved that social intolerance plays a significant role in the development of psychological distress. Yet, the link of the study variable is not unpretentious; there may be additional psychological features which are at play, that act as domineering role in psychological distress. Thus, emotional regulation is critical factor, which determine the increase and decrease of psychological distress. Individual that uses more emotional regulation effectively by developing emotional reappraisal about the situation during the time duration of cardiac illness will experience less level of psychological distress. As cardiac patients that utilized expressive suppression in way to hide the true feeling by developing a camouflage that enable them to hide the feelings from the significant other but in turn the suppressed negative effect lead to higher

level of psychological distress. Traditionally, positive emotions and thoughts, strengths, and the satisfaction of basic psychological needs for belonging, competence, and autonomy have been seen as the cornerstones of psychological health.

The result shows that discomfort intolerance has positive relationship with psychological distress (depression, anxiety and stress) (Table 18-20). Here an individual believes that life and should be comfortable, no frustration should be present and life difficulties are dealt with feebleness and bigotry of struggle leading to high intolerance and develop distress (depression, anxiety and stress) if feelings of intolerance persist (Williams et al., 2013; Harrington, 2005; Simons & Gaher, 2005; McNally, 2002) are thus supporting the same concept. The dimension of discomfort intolerance (DI) have been explored in number of psychological problems, studies have also observed improvement in distress intolerance after therapeutic treatment. In pre-post studies the decrease in DI after therapeutic treatment DI was is found to be linked with lower depressive and anxiety symptoms among psychological patient. Thus, study highlighted important role of DI in the establishment and treatment of depression and nervousness (McHugh et al., 2014).

Similarly entitlement individual belief their desires should be met as they belief that they should get what they want. High entitlement individuals are less concerned about approval then social acceptance making them prone toward high social intolerance and thus lead to higher feeling to distress (Jones & Trower, 2004; Twenge & Campbell, 2003). Extreme use of entitlement dimension of frustration intolerance creates an overstated belief about maladaptive beliefs about deserving ability and lead to mal-adaptive behaviors, due to lack of motivation.

Similarly, results shows that high emotional intolerant individual are intolerant of emotional stress and threat to emotional ease is strong predictor of high social intolerance and

central feature for feeling of anxiety and depression (Bredemeier & Berenbaum, 2008; Hong, 2007; Dugas, Buhr, & Ladouceur, 2004) (Table 18-20) is thus supporting the same concept. High achievement frustrated individuals focus on perfectionism and individual effort for achieving those standard which if not met are dealt with high social intolerance and feeling of depression, anxiety and stress (Alden, Ryder, & Mellings, 2002 ; Buhr & Dugas, 2002). Recent studies have also shown that different dimensions of social intolerance individually and combined yield idiosyncratic patterns of psychological disturbance e.g., depression, anxiety and stress (Belloch et al., 2011; Gentes & Ruscio, 2011; McEvoy & Mahoney, 2011; Van der Heiden et al., 2010).

Tahira, (2014) has reported that high intolerance among different populations lead to emotional disturbances. Similarly the severe medical problems like cardiac illness itself with the severe medical treatment procedures make the cardiac patients prone to develop higher feeling to intolerance. The hard treatment procedures with restrictive eating habits and life style changes with hospitalization make the cardiac patients more prone to develop feeling of depression, anxiety and stress. It was hypothesized that 'Social intolerance (discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) positively predicts psychological distress (depression, anxiety, and stress) among cardiac patients'' (hypothesis 1) which is supported by the research data (Table 18-20).

It was hypothesized that "Social intolerance (discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) negatively predicts cognitive reappraisal among cardiac patients" (hypothesis 2) is supported by the data (Table 21). Social intolerant individuals have close-mindedness about different concepts, problem to abide opposing feeling, they are irritated at opposition; refusing the right of other's for secretive view, inclined to

suppress opposition (Simons & Gaher, 2005). The perception of the social situations largely depends on emotional manner of control and adaptation in these situations that in turn increase the higher intolerance feelings in individuals. In this the emotional reappraisal affect the way individual feel satisfied with life situations and change the emotions related to daily life difficulties. Individuals utilize emotional regulatory strategies to alter or improve the degree and/or form of their emotional experience toward intolerant situation (Diamond & Aspinwall, 2003).

The high intolerant individual in social situation utilizing less level of emotional reappraisal strategies making them prone toward inflexible approach toward intolerance of situation. The emotional reappraisal help in re-modification of situation, developing flexible approach toward situation as well as change in emotional response toward the intolerant situation (Detweiler-Bedell et al., 2008). As chronic state of cardiac issue make the patients more vulnerable toward feeling of frustration due to life changes and life stresses along with the inability in adopting flexible approach toward the intolerant situation increase social intolerance in the cardiac patients (Table 21).

The hypothesis that "social intolerance (discomfort intolerance, entitlement, emotional intolerance, and achievement frustration) positively predicts suppression among cardiac patients" (hypothesis 3) was supported by the data (Table 22). The social intolerance is the conflict of a desire with an inflexible reality (De Botton, 2000). The social intolerance in absence of compromising thinking develops different negative emotions. The emotional regulation difficulties in high social intolerance don't change individual manner of dealing with the situation whereas developing rigid manner of dealing with the situation of suppressing the emotions reflated to situation. The individual with social intolerance adapt egoistic manner and

the belief processes of ineffective emotional response have strong relation with the dysfunctional feelings and manners. Researches have highlighted the link of emotional irregularities and dysfunctional emotions of suppression lead to high social intolerance (Harrington, 2006).

Suppression has benefit of minimizing the expression of negative emotions but unfortunate its major weakness is that sometime it withholds the expression of positive emotion as well (Ehring et al., 2010). The prolong effect of suppression lead to feeling of internal anger with the discomfort feeling and make cardiac patients develop more emotional intolerance toward social situation. The feeling of intolerance with life difficulties and life demands with medical issues increase the vulnerability toward high social intolerance. As patients go thorough more adverse medical treatment frustrate normal situation and individual develop more inflexible approach toward intolerant situation. The feeling of discomfort with feeling of unease with life changes with health changes make the cardiac patient vulnerable toward high intolerance feelings for social situation (Table 22).

Further it was hypothesized that "cognitive reappraisal negatively predicts psychological distress (depression, anxiety, and stress) among cardiac patients'' (Hypothesis 4) is accepted (Table 23-25). Recent studies by (McRae, 2012; Pitskel, 2011; Carthy et al., 2010) have supported the same idea that high emotional reappraisal individuals has flexible thinking patterns with the ability to alters one emotional response to frustrating situation. Thus, individual that utilizes more emotional reappraisal experiences lower level of depression, anxiety and stress (Table 23-25). As individual with low emotional reappraisal experience imitation of feelings, they deal with demanding circumstances by covering their internal true feelings, and holding the outward expression of emotion. As they are less clear about their feelings most of low reappraisal individuals are less successful in emotional repair and experience high level of

depression, anxiety, and stress (Patron, 2013; Ehring et al., 2010; Ehring et al., 2008; Campebell-Sills et al., 2006; Gross & John, 2003) are supporting the same notion.

Main focus of cognitive-behavioral therapies (CBT) in treatment of depression and anxiety is to training individual's to use reappraisal strategy to the patient to develop positive expressive response and adoption to social situation (Powers, Zum, Vording & Emmelkamp, 2009; Gross, 1998). As distress is one of the most common increasing disorders of emotion and thinking pattern (Gross & Muñoz, 1995). Lack of interest in participation of daily living and persistent depressive feelings and mood are main characteristics of depression (Campbell-Sills & Barlow, 2007). The impact of depression is protuberant in long-standing prognosis of coronary artery disease patient's. The qualitative research in cardiology and psychiatry has reflected that most of interference programs mainly focus on possible link between negative psychological symptoms like depression and cardiac consequences due to inability in developing flexible approach for the situation. Researcher's paid less stress on possible link of optimistic mental characteristics, (e.g., hopefulness, appreciation, and comfort) with the of improvement of cardiac illness (DuBois et al., 2012). Research by Gross and Levenson (1997) have highlight the effectiveness of emotional strategies and found reappraisal to be useful in plummeting the emotional experience and its expression without affecting memory on contrary although suppression reduces expression of emotion but not emotional feeling thus affect memory (Gross, 1998).

The physical and psychosocial stressors of chronically-ill patients have been associated with symptoms of anxiety and depression. Result of the study highlighted that Chronically-ill patients experience symptoms like pain, low energy, sleeping problems, nausea or vomiting, concentration problems, anxiety and depression (McClain, Rosenfled, & Breitbart, 2003).

Another study explored levels of distress among chronically-ill patients. Empirical research explored many stressors including higher levels of loneliness, high risk psychiatric disorders, depression, anxiety, suicidal ideation and risk of attempting suicide among chronic patients. However, providing effective intervention for better emotional regulation helps to minimize the level of distress feelings in cardiac patients (Breitbart et al., 2009).

Years of research have clearly shown that emotion regulation plays an important role in adaptation to stressful life events (Gross, 1999; Thompson, 1994). Research has shown that a particularly powerful category of emotion regulation involves the cognitive way of handling the intake of emotionally arousing information between stressful life events and psychological distress (Ochsner & Gross, 2005). In the group of cardiac patients it was observed that helping the patient in reappraisal of situation helped to improve depressive feelings of cardiac patients (Silbert et al., 2001) (Table 23-25).

It was hypothesized that "suppression positively predicts psychological distress (depression, anxiety and stress) among cardiac patient" (hypothesis 5) is supported by the data (Table 23-25). Emotion regulation is increasingly being incorporated into models of psychopathology (Mennin & Farach, 2007; Berenbaum, Raghavan, Le, Vernon, & Gomez, 2003; Greenberg, 2002). As "distress disorders" (Watson, 2005), depression and anxiety are widely viewed as the result of difficulties in utilizing emotional reappraisal and more use of expressive suppression (Campbell-Sills & Barlow, 2007; Mennin, Holoway, Fresco, Moore, & Heimberg, 2007). A cardiac patient faces various stressors e.g., major decisions about health, treatment related issues, changes in social relations, anxiety about future and, dependency on others, service-related stressors, stress of side effects, concerns about quality of life, lives of significant others (Williams, 2004). These persons feel difficult to regulate their emotions effectively.

Several theorists argue that individuals who cannot effectively manage their emotional responses (e.g., lower reappraisal and higher suppression) to everyday events experience longer and more severe periods of distress that may evolve into diagnosable depression or anxiety (Nolen-Hoeksema et al., 2008; Mennin et al., 2007).

Thus, suppression strategy is not affective in resolving negative feeling but lead prolongation and hoard unsettled feelings inside. Furthermore, suppression strategy creates inconsistency, between individuals internal feeling and external expression making individual losing their authenticity and creating negative feelings between people and within himself (Rogers, 1951). In contrast, suppression and avoidance have long been seen as maladaptive responses to a variety of stressors, and risk factors for both distress (depression and anxiety). Gross' model (1998) focuses primarily on suppression of emotional expression, and argues that although expressive suppression may reduce the outward expression of emotion and possibly the subjective experience of emotion in the short term, it will be less effective in reducing emotion and physiological arousal over the long term (Gross & Thompson, 2007; John & Gross, 2004; Gross, 1998). Wenzlaff and Wegner (2000) have produced a large body of research showing that attempts to voluntarily suppress thoughts result in an increased accessibility of the suppressed thought, and chronic suppression might prevent habituation to emotional stimuli, and as such result in hypersensitivity to depression and anxiety-related thoughts and symptoms (Wenzlaff & Wegner, 2000; Wegner & Zanakos, 1994) (Table 23-25).

Moderating Role of Emotional Regulation between Social Intolerance and Psychological Distress

Moderating analysis of emotional regulation (emotional reappraisal and expressive suppression) among social intolerance (discomfort intolerance, entitlement, emotional

intolerance and achievement frustration) and psychological distress (depression, anxiety, and stress) was carried out. The regression analysis was analyzed to find the interacting role of emotional regulation and social intolerance in development of psychological distress. To highlight this interacting effect in comprehensive manner the Hierarchal multiple regression was computed to study the moderating effect of emotional regulation with social intolerance and psychological distress.

The emotional reappraisal found to be significant moderator on the relationship between achievement frustration and psychological distress (anxiety). In the model 1, (Table 26) the value of R^2 highlighted that control variable (age, gender and family structure) explain (6.1 %) variance of psychological distress (anxiety). In model 2, (Table 26) the discomfort intolerance, achievement frustration and emotional reappraisal explains (38.2%) variance of psychological distress (anxiety). Whereas, the fact highlighted in model 3, (Table 26) the addition of emotional reappraisal as moderator with discomfort intolerance, and achievement frustration explain total of (47.3%) variance. The table 26 shows that moderator (emotional reappraisal) increased (3%). All the highlighted interaction are non-significant that highlighted that no moderation occurred except for the relationship between achievement frustration and psychological distress (anxiety). Mod graph showed that at low level of emotional reappraisal the achievement frustration is positively related with psychological distress (Anxiety). While cardiac patients with high level of emotional reappraisal there was positive relationship between achievement frustration and anxiety. As McHugh et al. (2014) revealed that individuals high on achievement intolerance experience more level of psychological distress (anxiety). Other findings by other researcher's Rahman and Dawood (2009) confirmed that high achievement frustration in the social, and frustration bigotry or ability of low frustration lenience, create anxious feelings in the individual.

High discomfort and achievement oriented patients develop more anxious, fearful and apprehensive perception toward life situation (Chen & Hong, 2010). Low emotional reappraisal for the distress feelings might prevent habituation to emotional stimuli and as such result in hypersensitivity to anxiety-related thoughts and symptoms (Newman & Llera, 2011; Mennin & Fresco, 2009; Wenzlaff & Wegner, 2000). The emotional reappraisal helps individual modify the flexible regulation strategy that involves changing how one thinks about an emotional stimulus so as to alter one's emotional response to the frustrating situation by modifying the distress response related to situation (Patron et al., 2013; Kring & Sloan, 2010).

The emotional reappraisal found to be significant moderator in the relationship between entitlement and psychological distress (stress). In the model 1, (Table 26) the value of R^2 highlighted that control variable (age, gender and family structure) explain (1.6%) variance of psychological distress (stress). In model 2, (Table 26) the entitlement and emotional reappraisal explains (6.3%) variance of psychological distress (stress). Whereas, the fact highlighted in model 3, (Table 26) the addition of emotional reappraisal as moderator with discomfort intolerance, and achievement frustration explain total of (15.3%) variance. The table 26 shows that moderator (emotional reappraisal) increased (7.5%). The mod graph Figure 11 showed that high level of emotional reappraisal is entitlement is positively related with stress. Above figure showed that high level of emotional reappraisal is related with low level of entitlement and low level of stress. High level of entitlement is related with high stress on the medium and low level of emotional reappraisal. As high entitled individuals creates an overstated belief about maladaptive beliefs about deserving ability and lead to stress feelings due to lack of desired ambition due to lack of motivation. Research by Anderson et al. (2013) highlighted that high-level of entitlement about positive outcome in students lead to negative consequences by making

them feeling stressed and anxious most of time and disturbing the daily living (Harrington, 2005). Individual high on entitlement develop less reappraisal toward situation and prolong frustrating feelings develop higher level of stress as better utilization of emotion and skills of emotional tolerance are important for teaching individual manner of adoption of handling stress (Morris et al., 2010).

The multiple regression analysis was computed to explore the interactive effect of social intolerance and emotional regulation (emotional reappraisal and expressive suppression) (Tabl3 26-27). But some of the interactions were non-significant that depicted that there is no moderating effect of emotional regulation in the relationship between social intolerance and psychological distress (depression, anxiety, and stress). Psychological distress is an internal state in which the individual has difficulty relaxing nervous arousal and being easily upset and/ agitated, irritable and impatient and the effect of emotion regulation reappraisal is in affective as individual sometime consider the feelings to be normal and relate it to situation. Hence cardiac patients feel stressful due to physical condition most of time, for that cardiac patients identify the depressive, anxious and stress feelings to be present in social situation is informal. Emotion regulation involves the cognitive way of handling the intake of emotionally arousing information between stressful life events and psychological distress (Mennin & Fresco, 2009). The cardiac patients are unable to identify these disturbing feelings to be part of illness for them identifying the relation between distress and social intolerance is difficult and role of emotional regulation in its relation is found to be non-significant. The social intolerance is also apparent incapability to endure upsetting condition (Martin & Dahlen, 2004). Leyro et al. (2010) depicted that the declared inability to tolerate traumatic state is indicative of distress feelings (Chiavarino et al., 2012). The result highlighted the use of emotional reappraisal but no significant relation of

suppression as moderator have been highlighted in present research as suppression for the social intolerant situation has long been seen as maladaptive responses to a variety of stressors, and risk factors for depression (Ehring at al., 2010) (Table 26-27).

Conclusion

Cardiac patients experience diverse emotional states, of despair, fear and apprehension. The link of these feelings with the situational condition is strong. The present study inspected that social intolerance is most persuasive factor in the development of psychological distress. The discomfort intolerance, entitlement, emotional intolerance, and achievement frustration are positively related to psychological distress. However, the social intolerance link with stress is found to be non-significant. The emotional reappraisal has negative relationship with psychological distress. Expressive suppression is positively related with psychological distress. Additionally, the emotional regulation strategies found to moderate the relationship of social intolerance and psychological distress. Some of the predictions made from the previous researches did not appear to be influential. However emotional regulation was not as significant as expected by results from previous researches. It can be concluded that other factors may be at play between social intolerance and psychological distress other than emotional regulation which may increase and decrease the psychological distress in cardiac patients. Cardiac illness is a major chronic illness leading to psychological distress as well as social intolerance. Discomfort intolerance is also related with psychological distress. Emotional reappraisal is negatively related with depression. Males are found to score high on social intolerance. Females are found to be higher on emotional reappraisal. Male cardiac patients are found to be higher on depression. Cardiac patients of nuclear family system are found to be more socially intolerant.

Implications

Most of researches have been carried out on the self-esteem, on state of cardiac state and psychological distress as these are obvious associations. The findings of the present study helped to highlight role of some of the basic reasons that are associated with the psychological distress among cardiac patients. The present study also attempted to throw light on the emotional regulation strategies that help to increase and decrease the feeling of distress in cardiac patients.

The present study also highlighted that manner in which emotional control can play its role in improving the emotional state of cardiac patients. Also, emphasizing the emotional manner of modification helps in better adjustment to social situation. Current study helped in guiding in reform and reinterpretation of the stressful situations following positive assessment of mental, emotional and social stressors.

The current study guided the health specialists and psychotherapist that they need to give importance to the contextual features, as they design any therapeutic approaches or suggested effective copings approaches for cardiac patients. As cardiac patients with diverse demographics experience different stressors in Pakistan therefore, same interventions might not be effective in moderating distress of patients with different characteristics, like stage of cardiac issue, different type of cardiac issues, gender outcome, socio-cultural background and present disease difficulties.

Limitations and Recommendations

The current research was carried out with maximum input, but current research has certain limitations. Primarily due to time constraints and due to inclusion and exclusion criterion the less sample was taken. Further studies should accumulate larger size of sample. The sample

consisted of educated cardiac patients and was geographically restricted to twin cities of Pakistan. Making possibility for inadequate influences to sense smaller effect vicissitudes due to education and geographical restrictions. Further studies should accumulate sample from uneducated population of Pakistan as most of Pakistani cardiac population are uneducated, with diverse cities in order to make the study more generalizable.

The instruments used in present study were in English version that could restrict the result of the present study only to educated population. Similarly the social intolerance, emotional regulation and psychological distress were assessed by self-report measure that could thwart the contributing factors that play its role in development of psychological distress among cardiac patients. So further studies should explore more hidden factors by using qualitative approach. As self-report scale have more probabilities for response bias by the participants. Therefore, further researchers should try to inhibit these factors.

The current study was based on cross-sectional design, which limits in making confident conclusion about the casual relation in cardiac patients, so longitudinal design should be utilized in further research to highlight the pattern of development of psychological distress among cardiac patients. The convenient sampling was used in present research random sampling technique in future may turn to show different conclusions.

In the cardiology departments with the collaboration of psychiatrists the cardiac patients may be recommended to share the feelings with the family members and rather to intimate individuals who facilitate the cardiac patients in their adjustment efforts toward their illness or other going thought same cardiac conditions. As psychological sharing with the patients going through same experience may enhance the effective coping strategies, as patients recovered from same condition might be helpful in the reassessment of the stresses and internally justifying the

distress. Similarly, therapists need to advice the patient to focus on source availability and better adjustment to social situation by adopting flexible and less rigid approach toward life goals. Patients need to be guided that suppression of felt thoughts are need to be discussed as mostly the cardiac patient express negative gestures toward family members due to high suppressed emotions. The cardiac patients need to share their true feeling with loyalty so they can experience appreciation toward the family member supporting them in diverse physical condition. Giving the cardiac patient an insight of strategies that enable them to develop resilience toward distress feelings and become better socially adjusted individual.

Lastly, through diverse the mediums of education like psycho-drama, advertisement, movies, biographies, talk shows, present study can sensitize people about the reasons behind the cardiac issues and can guide in providing the interventions to patients having genetic vulnerability toward diabetes and hypertension so than preventive measure can be taken before having any cardiac issues. Similarly such mediums can also highlight the experience the cardiac patients go though and can enhance the social support provided to the patient by family members. By regulating emotions properly tolerating, the social situations the psychological distress can be controlled leading to healthy social support (high level of social support) helps in enlightening the mental and physical wellbeing of the cardiac patients.

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ANNEXURES OF INSTRUMENTS

Appendix- A

Consent Form

I amdoing MS in (Clinical Psychology) from DEPARTMENT OF PSYCHOLOGY, International Islamic University, Islamabad. The current study is necessary for the partial fulfillment of MS degree.

Present study is an effort to explore different psychological factors associated with cardiac issues. Your views about the illness will be kept confidential and will only be used for study purpose.

Your participation in the study will be highly appreciated

Participant Signature

_____

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MS Scholar

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Demographic Sheet

Name: _____ **Age:** _____ **Gender: Male/Female**

Education: _____**Mother's Education/Profession:**_____

Father's education/Profession: _____ **Birth order:** _____

Family Structure: joint/ nuclear Profession: _____

Marital status: Married/ unmarried/ Divorced/Widowed

Monthly Income : _____ **Number of children:** _____

Cardiac issue: _____

Duration of illness: _____ **Smoker/ non-smoker/Other Substance**

Other physical problem (if any): _____

Family History of Cardiac pathology: Yes/No

Appendix-B

Listed below are a number of common thoughts and beliefs that people may have when they are distressed or frustrated. Please read each statement and decide how well this usually describes your own beliefs. Circle the number that best indicates the strength of this belief.

RATING SCALE: absent = 1 mild = 2 moderate = 3 strong = 4 very strong = 5

1	I need the easiest way around a problem; I can't stand making a hard time of it	1	2	3	4	5
2	I can't stand having to wait for things I would like now	1	2	3	4	5
3	I absolutely must be free of disturbing feelings as quickly as possible; I can't bear if they continue	1	2	3	4	5
4	I can't stand being prevented from achieving my full potential	1	2	3	4	5
5	I can't stand doing tasks that seem too difficult	1	2	3	4	5
6	I can't stand it if people act against my wishes	1	2	3	4	5
7	I can't bear to feel that I am losing my mind	1	2	3	4	5
8	I can't bear the frustration of not achieving my goals	1	2	3	4	5
9	I can't stand doing tasks when I'm not in the mood	1	2	3	4	5
10	I can't bear it if other people stand in the way of what I want	1	2	3	4	5
11	I can't bear to have certain thoughts	1	2	3	4	5
12	I can't tolerate lowering my standards even when it would be useful to do so	1	2	3	4	5
13	I can't stand having to push myself at tasks	1	2	3	4	5
14	I can't tolerate being taken for granted	1	2	3	4	5
15	I can't stand situations where I might feel upset	1	2	3	4	5
16	I can't bear to move on from work I'm not fully satisfied with	1	2	3	4	5
17	I can't stand the hassle of having to do things right now	1	2	3	4	5
18	I can't stand having to give into other people's demands	1	2	3	4	5
19	I can't bear disturbing feelings	1	2	3	4	5
20	I can't stand doing a job if I'm unable to do it well	1	2	3	4	5
21	I can't stand doing things that involve a lot of hassle	1	2	3	4	5
22	I can't stand having to change when others are at fault	1	2	3	4	5
23	I can't get on with my life, or be happy, if things don't change	1	2	3	4	5
24	I can't bear to feel that I'm not on top of my work	1	2	3	4	5
25	I can't stand having to persist at unpleasant tasks	1	2	3	4	5
26	I can't tolerate criticism especially when I know I'm right	1	2	3	4	5
27	I can't stand to lose control of my feelings	1	2	3	4	5
28	I can't tolerate any lapse in my self-discipline	1	2	3	4	5

Appendix-C

Instructions and Items

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1----------2----------3----------4----------5----------6----------7
stronglyneutral strongly
disagreeagree

1. ____ When I want to feel more *positive* emotion (such as joy or amusement), I *change what I'm thinking about.*
2. ____ I keep my emotions to myself.
3. ____ When I want to feel less *negative* emotion (such as sadness or anger), I *change what I'm thinking about.*
4. ____ When I am feeling *positive* emotions, I am careful not to express them.
5. ____ When I'm faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm.
6. ____ I control my emotions by *not expressing them.*
7. ____ When I want to feel more *positive* emotion, I *change the way I'm thinking* about the situation.
8. ____ I control my emotions by *changing the way I think* about the situation I'm in.
9. ____ When I am feeling *negative* emotions, I make sure not to express them.
10. ____ When I want to feel less *negative* emotion, I *change the way I'm thinking* about the situation.

Appendix- D

Please read each statement and circle a number 0, 1, 2 or 3. There are no right or wrong answers. Do not spend too much time on any statement.The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and makea fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on withwhat I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (e.g, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

ANNEXURES OF PERMISSION LETTER

Request for Frustration Discomfort Scale (2) ★

Neil Harrington Apr 1, 2014 ★

To: Rabia Mir

Hi Rabia,

Thank you for your interest in the FDS. I have attached the scale, which you have permission to use in your research. Hope your research goes well, please let me know if you have any questions, and I would be interested to know of your results.

Best wishes,

Neil Harrington

Hide original message

---- Original Message ----
From: Rabia Mir
To: neil@nharr.freeserve.co.uk
Sent: Tuesday, March 25, 2014 4:45 PM
Subject: Request for Frustration Discomfort Scale

Dr. Harrington

My name is Rabia Zonash Mir. I am doing MS in Clinical Psychology and currently doing Research on the purposed topic of

Moderating effect of emotional regulation in relation to social intolerance and psychological distress among cardiac patients

I am writing in to ask you to kindly forward me the Frustration Discomfort scale and as per university rules permission to use your scale in my research. This scale will only be used for present study. Hope so your scale benefit my research immensely.

Kindly let me know the scale validity/ reliability as well .

Kindly grant me permission to use your kindly developed scale. As soon as possible as feasible for you.
I shall be very thankful to you.

Regards

Permission letter to use DASS (5)

People

Peter Lovibond Mar 25, 2014

To Rabia Mir

Dear Rabia Zonash Mir,

You are welcome to use the DASS in your research. Please see the DASS website www.psy.unsw.edu.au/dass/ to download the questionnaires (including translations in certain languages) and scoring key. Please also see the FAQ page on the website for further information.

Best regards,
Peter Lovibond

Hide original message

From: Rabia Mir [mailto:rabi_123_mir@yahoo.com]
Sent: Tuesday, 25 March 2014 4:52 AM
To: Peter Lovibond
Subject: Permission letter to use DASS

Dear Sir

My name is Rabia Zonash Mir. I am doing MS in Clinical Psychology and currently doing Research on the purposed topic of

Moderating effect of emotional regulation in relation to social intolerance and psychological distress among cardiac patients

I have got the free PDF file of DASS available online on your official website. As per university rules I need your permission to use this scale for my study purpose.

Kindly grant me permission to use your kindly developed scale. As soon as possible as feasible for you.

Regards

Rabia Zonash Mir
International Islamic University, Islamabad Pakistan.

James Gross Mar 24, 2014 ★

To Rabia Mir

You are welcome to use the ERQ for this purpose.

Best wishes,

James

˅ Hide original message

On Mon, Mar 24, 2014 at 8:40 AM, Rabia Mir <rabi_123_mir@yahoo.com> wrote:

Dear Sir

My name is Rabia Zonash Mir. I am doing MS in Clinical Psychology and currently doing Research on the purposed topic of

Moderating effect of emotional regulation in relation to social intolerance and psychological distress among cardiac patients

I have got the free PDF file of emotional regulation Questionnaire available online. As per university rules I need your permission to use this scale for my study purpose.

Kindly grant me permission to use your kindly developed scale. As soon as possible as feasible for you.

Regards

Rabia Zonash Mir
International Islamic University, Islamabad Pakistan.

INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD – PAKISTAN
FACULTY OF SOCIAL SCIENCES
Department of Psychology
P.O. Box No. 1243 Telegram ALJAMIA Telex.54068 IIU PK. Tel: 9019338, 9257909

To Whom It May Concern

It is certified that Ms. Ms. Rabia Zonash Mir_Registration No.89-FSS/MSPSY/F12, is student of MS Psychology at International Islamic University Islamabad. Kindly allow her to take research data of Cardiac Patients for her thesis requirement from your prestige institution for the partial fulfillment of her MS Degree. The information will be kept confidential and ethical concern will be followed.

Your cooperation in this regards will be highly appreciated.

DR. SEEMA GUL
Acting Chairperson
Department of Psychology
International Islamic University Islamabad.

Dr.Seema Gul
Chairperson
Department of Psychology
Female Campus IIUI.