Introduction

1.1 Background

Emotions are considered both the means and the measure of one’s engagement with the world (Frijda, 1986) and are viewed as a primary meaning system providing important adaptive information for human survival and wellbeing (Greenberg & Safran, 1987; Greenberg & VanBalen, 1998). Emotion though is considered as a core organizing process and as fundamental to the construction of the self (Greenberg & Pascual-Leone, 2006), at times the same emotions may become the cause of mental ill-health and ill-being if they are not properly processed or dealt with (Baker, Thomas, Thomas, & Owens, 2007). In other words, the emotion that is considered functional and cause of growth/development and overall health/wellness of the human kind, it sometimes may become dysfunctional and disruptive and thus turns into the source of emotional distress and mental ill-health depending on how one processes the emotions (or emotion triggering events and situations). The major focus of the present research is to understand how and to what extent the deficient ways of emotional processing or various manifestations of emotional processing difficulties (emotional processing deficit) relate with symptomatic complaints of mental health problems.

The connection between emotions and health though has been well documented (e.g., see Pandey & Choubey, 2010), recent literature suggests that most of the attempts to explain the said connection has been limited to the stress-coping framework of the Lazarus (1966) and there is a paucity of models to explain the emotion and health connection beyond this framework (Sundararajan, 2012). Sundararajan (2012) while commenting on the John Cromby’s seminal work “Beyond belief” (Cromby, 2012) accepts the Cromby’s argument for an affective turn in health psychology and extends it by presenting an integrative account of belief, emotion and health. Taking into account the central theme of the Cromby’s proposal that “beliefs are lived and embodied meanings and hence are properly understood as feelings” (p. 977), Sundararajan (2012) considers emotion is meaning and argues that belief is integration of feeling/emotions and thinking. Sundararajan (2012) while mentioning the Cromby’s usage of “felt thinking” to refer beliefs as system that integrates the subsystems of thinking and feeling, theorizes that emotion and health connection can be better understood in terms of belief as conceptualized by Cromby (and further elaborated by him in relation to other theories and empirical evidences.)
In the light of the aforesaid theorization, the present research makes an attempt to understand the connection between emotion and health (particularly between emotional processing deficit and mental health) in terms of emotion related beliefs (or more generally emotional beliefs) and thus in a sense it goes beyond the stress-coping framework of Lazarus (1966) in explaining the link between emotion and health.

The role of beliefs in understanding and predicting human health in general and mental health in particular has a well-established tradition and has its root in social learning theories of Rotter (1954) and Bandura (1977) as well as in value expectancy theories (Crosby, Salazar, & DiClemente, 2013). Social learning and social cognitive theorists emphasize the role of subjective hypotheses or expectations held by the individual. Behaviour, in this perspective, is a function of the subjective value of an outcome and of the subjective probability (or “expectations”) that a particular action will achieve that outcome. Such formulations are generally termed “value expectancy” theories. Reinforcements, or consequences of behaviour, are believed to operate by influencing expectations (or hypotheses) regarding the situation. Based on social learning theories researchers have developed a “health belief model” for predicting human health and health related behaviours (see Rosenstock, Strecher, & Becker, 1988; Janz & Becker, 1984 for a review). However, from the perspective of health belief model, the focus is given on health related beliefs in explaining individual differences in health and not on beliefs that are linked with other attributes such as emotions.

Unlike the ‘health belief model’ that focuses on health related beliefs, the present study gives emphasis on ‘emotion related beliefs’ or emotional beliefs. Review of literature suggests that people may hold implicit beliefs about the fixed or malleable nature of a wide range of abilities and traits including intelligence (Blackwell, Trzesniewski, & Dweck, 2007), personality (Chiu, Hong, & Dweck, 1997; Erdley, Loomis, Cain, Dumas-Hines, & Dweck, 1997), and even one’s morality or the nature of the world in general (Chiu, Dweck, Tong, & Fu, 1997). Accordingly, one may also hold an implicit belief about fixed or malleable nature of emotions and emotional outcomes. The present research focuses on the implicit beliefs about emotions and emotional outcomes and includes both the malleable and fixed emotional beliefs. For instance, a belief that one would be capable of choosing a behaviour or cognition that may help to regulate or change one’s negative mood (generally referred to as generalized negative mood regulation expectancies; see Catanzaro & Mearns, 1990) is belief of malleable nature. On the other hand, a belief that one’s negative emotional experience or its expression would not be accepted by others or would be
perceived as a weakness (Rimes & Chalder, 2010) may be considered to be fixed or non-malleable belief. Such beliefs may be seen from two different perspectives – incremental theory and entity theory. Compared to incremental theorists (who believe in the potential for change), people holding entity beliefs typically believe in the fixed, unchanging nature of these attributes and traits.

Such beliefs have important implications for self-regulation as well as social and emotional functioning including emotional processing. For example, research indicates that people holding entity beliefs often make global positive and negative trait judgments about people based on their actions and are also more likely to blame or condemn these personal qualities when they or others encounter setbacks (Chiu et al., 1997; Gervey, Chiu, Hong, & Dweck, 1999). Because entity theorists believe their weaknesses cannot be improved, they are also vulnerable to disengagement and helplessness (Hong, Chiu, Dweck, Lin, & Wan, 1999; Ommundsen, Haugen, & Lund, 2005; Rhodewalt, 1994), poorer coping strategies under stress (Doron, Stephan, Boiche, & Le Scanff, 2009), reduced self-esteem (Rhodewalt, 1994), and more negative affect over time (Robins & Pals, 2002; Tamir, John, Srivastava, & Gross, 2007).

Among the above mentioned various correlates of the said implicit entity beliefs, the health related correlates and the affective correlate (e.g., enhanced negative affect over time - Robins & Pals, 2002; Tamir et al., 2007) are of main interest to the present research as the current investigation also attempts to examine the role of negative affect in relation to emotion related beliefs and emotional processing deficit in understanding mental health status of an individual.

In the backdrop of the aforesaid empirical observations and theorizations related to explaining the connection between emotion and health from the integrated perspective of emotion, belief and health interplay, the present research aims to explore the link of a relatively recent emotional construct of “emotional processing” with mental health and endeavours to explain this link in terms of emotion related beliefs and one of the speculated emotional outcome of emotional processing deficit (i.e. negative affect).

The following sections of the present chapter would focus on presenting a descriptive review of the concept and models of various emotion related constructs examined in the present research and the next chapter (Review of Literature) would focus on a more critical review of empirical researches linking the said emotional constructs with mental health as well as with each other. However, before presenting the overview of concept, models and measurement of the said emotion related constructs, an attempt has
been made to highlight the significance of mental health research in general and the potential factors (especially the emotional factors) that may play important role in understanding the mental health status of an individual. This will form a background for understanding the issue under investigation as well as help to put various emotion related constructs in context.

1.2 Mental health and its emotional correlates

The mental health has been defined in the existing literature from two broader perspectives – the negative approach and the positive approach. The former defines health as relative absence of illness or its symptoms whereas the latter emphasizes on the fact that health includes presence of certain qualities such as happiness or pleasant emotional experiences, autonomy and many more. The positive definition of mental health is also apparent in the definition of mental health given by World Health Organization. WHO defines mental health as “........... a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (World Health Organization, 2014). The present research follows the negative health definition and thus attempts to gauge mental health in terms of relative absence of various signs and symptoms of mental health problems.

During the last few decades mental health has become a major focus of research and has captured the attention of a wide range of professionals including psychologists. The prevalence of mental health difficulties in young people is a major concern for researchers and mental health practitioners. An estimate suggests that 13% of children and young people in India can be diagnosed for the prevalence of mental health conditions (Patel, Flisher, Hetrick, & McGorry, 2007). Many of these conditions persist into adult life (Rutter, Kim-Cohen, & Maughan, 2006), with half of all lifetime mental health problems starting by the age of 14 (National Mental Health Development Unit, 2007). Failure to address poor mental health and conduct disorder during childhood and adolescence results in higher risk of suicide, substance misuse, self-harm and lower achievement in education and employment (Richards & Abbott, 2009).

Though there exist a wide range of contextual and physical factors that are associated with mental health including neighbourhood resources (Ratchford & Beaver, 2009), family cohesion or discord (Fergusson, Horwood, & Lynskey, 1992), and birth weight (Hille et al., 2001), individual psychological factors contribute about 16% of the
variances in mental health outcomes (Vasilev, Crowell, Beauchaine, Mead, & Gatzke-Kopp, 2009). Thus a clear understanding of these psychological factors is needed to ensure that the efforts of psychologists and mental health practitioners, working to facilitate change at the level of the individual, are applied where they can be most effective.

Among the various psychological factors associated with mental health, the role of emotions is argued to be central (Pandey & Choubey, 2010) and the emotional influences on health has emerged as an important area of inquiry in health psychology. It is argued that mental health status of an individual is influenced by a wide range of emotions. Harvard Medical School research published in the year 2006 confirmed that 85% of illnesses have an emotional component in their make-up. It has been widely recognized that emotions are very important determinant of health and may complicate the assessment and treatment of chronic diseases (Bisschop, Kriegsman, Beekman, & Deeg, 2004). Studies in the past have shown that the negative emotional experiences are linked with symptoms of physical and mental illness. Several researchers have noted an association of negative affect (NA) with complaints of physical symptoms (McCrae & Costa, 1987; Van Hemert, Bakker, Vandenbroucke, & Valkenburg, 1993; Watson & Pennebaker, 1989).

The hypothesis regarding the relationship between the nature of emotional experience and expression with mental health status gain attention with Alexander’s (1939) proposal of psychosomatic paradigm of health and illness (Pandey & Chaubey 2010). According to this paradigm, bodily symptoms caused by mental or emotional disturbances came to be labeled as psychosomatic disorders (Alexander, 1950). This was different from disorders that were more amenable to the extant medical knowledge and technology. Included in psychosomatic disorders was an assortment of disorders that shared the absence of a coherent biological etiology (e.g., essential hypertension, gastric and duodenal ulcers, migraine headaches; eating disorders, asthma, arthritis). In this paradigm, attempt to suppress negative emotions is the central element leading to the development and progression of various physical illnesses (Alexander, 1939; Alexander & French, 1946; Dunbar, 1954). In contrast, the biosystemic paradigm of psychopathology conceptualizes human functioning as a complex network of interrelated processes and mechanisms (Spaulding, Sullivan, & Poland, 2003). Those processes and mechanisms can usefully and heuristically be organized into five categorical levels of analysis (in order of most molecular to most molar): neuro-physiological, neuro-cognitive, social cognitive, socio-behavioural, and socio-environmental. Most research on the social cognitive deficits associated with serious mental illness has focused on emotion processing.
In order to understand the emotional dynamics of mental health, researchers during the last few decades, have focused on a variety of emotion related constructs in relation to various mental health conditions such as attitude towards emotional expression & post traumatic stress disorder (Nightingale & Williams, 2000), generalized expectancies for negative mood regulation in anxiety and depression (Kassel, Bornovalova, & Mehta, 2007), beliefs about experience and expression of emotions with chronic fatigue syndrome (Rimes & Chalder, 2010), emotion regulation and general mental health (Gross & Muñoz, 1995), emotional avoidance and psychological distress (Kashdan, Barrios, Forsyth, & Steger, 2006), Alexithymia and medical and psychiatric disorders (Lumley, 2004; Lumley, Neely & Burger, 2007), emotional disclosure/expression with health and well-being (Kennedy-Moore & watson, 2001), positive/negative affect with perceived physical and mental illness (Mayne, 1999; Hu & Gruber, 2008), emotion intensity and depression (Flett, Blankstein, & Obertynski, 1996), emotional control/ Suppression with depression and pain, (Beutler, Engle, Oro'-Beutler, Daldrup, & Meredith, 1986) etc..

Emotions have been considered one of the most important determinants of mental health. Evidences suggest that individuals with mental illness show dysfunctional emotional processing of stimulus content. There are ample literature which confirms the fact that emotions are one of the best predictors of overall happiness in adults of all ages is health and physical fitness (Myers, 1992). Constant efforts by psychologists to link emotion and health have lead to the identification of several affect related constructs that explain a significant proportion of variance in the health status of an individual. These are, the affective disposition to experience positive and negative emotions (hereafter referred to as positive and negative affectivity); the disposition to experience extremes of emotional states irrespective of the emotional valence (hereafter referred to as affect intensity); the ability to control or regulate the experience and expression of emotions (emotion regulation); the tendency to socially share and verbally express traumatic emotional experiences (emotional disclosure); and the ability to perceive, express, understand, monitor and manage emotions (emotional intelligence) (see Pandey & Choubey, 2010 for a review). The vast majority of research on health and emotion has studied the impact of negative emotional experiences on disease processes that include the impact of psychological stress on cardiovascular activity (e.g. Tomaka, Blascovich, Kibler, & Ernst, 1997), Neuroendocrine response (e.g. Cacioppo et al., 1995) and immune function (Glaser & Kiecolt-Glaser, 1994) as well as on mental (Folkman, Lazarus, Gruen, & DeLongis, 1986) and physical health (Cohen, Tyrrell, & Smith, 1991).
A close look of the aforesaid studies reveals that most of them have examined only the independent role of said emotion related constructs in understanding mental health, and very few studies have focused on the interrelation or interplay of these constructs in determining mental health. Some of these studies are: affect intensity and negative mood regulation (NMR) expectancies in predicting health outcomes such as stress and well being (Mehrotra & Tripathi, 2012), emotion regulation difficulties and alexithymia in mental health (Pandey, Saxena, & Dubey, 2011), alexithymia and emotional awareness to assess emotional processing in eating disorder (Bydlowski et al.; 2005), suppression and acceptance in relation to obsessive–compulsive disorder (Najmi, Riemann, & Wegner, 2009), and emotional processing (emotion Perception, emotion regulation, depression and anxiety) in relation to stroke (Scott, Phillips, Johnston, Whyte, & MacLeod, 2012).

The aforesaid review suggests that there are a large variety of emotion related constructs that have been studied in relation to health in general and mental health in particular. However, the present investigator made an effort to review the conceptual definitions and nature of the said emotion related constructs in order to explore the communality and differences among them. This review of conceptual models of the said emotional constructs suggests that many of these constructs may be summarized and clustered together or categorized into three meaningful categories or subsets. These are:-

1. Emotion related beliefs (Emotion regulation related beliefs and expectancies and/or Emotion experience and expression related attitudes or beliefs)
2. Emotional processing related deficits (alexithymia, emotion regulation/dysregulation, emotion intensity, emotional control/suppression)
3. Affective outcome of emotional aspects (positive emotional experiences, negative emotional experiences)

This categorization of the emotional constructs into three second order or broader construct has received ample support in the recent literature dealing with emotion – health relationship. Baker (2007) in his model of Emotional processing deficit has included a vast variety of emotion related constructs (such as alexithymia, emotion regulation/dysregulation, suppression, emotion control etc.). The construct of emotion expression related beliefs proposed by Rimes and Chalder (2010) and constructs of mood regulation expectancies proposed by Catanzaro and Mearns, (1990) can be clubbed together as emotion related beliefs. Similarly, negative and/or positive affect are considered by some researchers as an affective outcome of either emotional processing deficit (Baker et al., 2007) or emotion related beliefs and expectancies (Kassel, Bornovalova, & Mehta, 2007).
The present study, thus, attempts to explore role of these three broader categories of emotion related constructs [viz., emotional processing deficits, emotion related beliefs (beliefs and expectancies about regulation and expression of emotions), and the negative affect (considered as an emotional outcome)] and their subcomponents in understanding human mental health. This thesis offers a broader and more differentiated understanding of the dynamic role of emotions in mental health and tries to describe how the emotional processing, negative affect and emotion related beliefs interact or interplay with each other in determining mental health.

As stated earlier, the central goal of the present research is to understand the connection of emotional processing deficit and mental health problems in terms of various emotion related beliefs and negative affect. However, being a largely exploratory research, the study would initially focus on determining the independent role of the said three emotion related constructs in determining mental health followed by exploring the interrelation among the emotion related constructs so that the central goal of uncovering the dynamic interplay of these emotional constructs in determining mental health may be achieved.

The following sections and sub-sections present an overview of the concept, models and measurement of the said emotional constructs.

1.3 Emotional Processing: Different connotations and related concepts

Although many different definitions of emotion have been advanced, most current researchers do not consider emotions as a unitary, elementary entity but rather view them as a multi-component phenomenon. Emotions are defined as a complex of changes in the various subsystems of the organism's functioning. All people inevitably experience emotions, but they differ in how they manage the resulting affect. There is a growing body of research on how people handle their affective responses (see Koole, 2009, for an overview), but rather little is known about why some people attempt to regulate negative affect in one way, and some people in another. One might wonder, for instance, why some individuals avoid negative affect, while others do the opposite.

Kappes and Schikowski (2013) suggested that lay theories about the nature of emotions (Tamir et al., 2007) impact the strategies people use. Entity theorists see emotions as fixed, running their course no matter how hard one might try to alter them. Such an understanding of emotions might lead entity theorists to favor an avoidance centered approach to regulating their affect. Incremental theorists, on the other hand, view
emotions as malleable, and susceptible to control and change. Such a view of emotions might lead to an acceptance-centered approach to affect regulation.

The categorization and management of emotions have been explored frequently in psychological discourses (Russell, 2003) and it is unanimously agreed that various aspects of emotion (such as emotion regulation, alexithymia, emotional intelligence, awareness and expression) contributes towards an understanding of how people deal with feelings engendered by stressful events. The work of Baker and colleagues in developing the Emotional Processing Scale draws together these concepts in trying to understand why some people manage to adapt well to emotional disturbances and continue with normal life while for others’ failure to manage them appropriately impacts on their regular normal behavior (Baker et al. 2007). While knowledge of the regulation of emotions is central to supporting and maintaining mental health, psychologists have struggled to understand even the most basic stages of emotion processing (Gross & Levenson, 1997). Studies have shown that emotional inhibition or repression is implicated in pathogenesis (Gross & Levenson, 1997) and consequently attempts have been made to understand the emotion-regulatory process further (Foa & Kozak, 1986; Gross & Levenson, 1997; Rachman, 2001; Russell, 2003; Baker et al., 2004).

Cognitive theory of emotions view the brain as an organ which stores and processes information. When an event occurs the brain retrieves stored information related to the event and reorganizes the information storage depending on the acquisition of new relevant material. This is described as emotional memory (Ellsworth, 1994) whereby memory is activated by a stimulus that matches some of the information in the memory bank. As a result, all other associated factors in the memory information bank are activated, including the emotion previously experienced. In other words, emotions are dealt with or processed according to previously stored information (Lang, 1994). An example of this would be the emotion of fear which is represented in the memory in three ways: information about the stimulus that will cause the fear, information about the physiological and verbal responses to this stimulus and interpretative information about the meaning of the stimulus (Lang, 1979). The concept of emotional processing was formulated in an attempt to understand how emotions are stored and remembered and to describe how that stored information is accessed and processed as a component of an individual’s behavior and response to a trigger (Lang, 1979).

Emotional processing is about an interplay of a variety of components that make up the complex nature of emotions in such a way that a distressing experience is turned into a
non-disturbing one (Dorset Research and Development Support Unit, 2003). Emotional awareness, regulation and experience each form an integral part of the process of emotional processing (Baker et al., 2007b). Before discussing the various conceptual models of emotional processing including the Baker’s model (Baker, 2001; Baker et al., 2007) that has been used in this study, it will be valuable to explore some of the concepts involved in the complex process of dealing with or processing of emotions. These constructs are related to the notion of emotional processing as used in the health literature and will provide a base to appraise the various models of emotional processing and their implications for health.

1.3.1 Constructs related to emotional processing

1.3.1.1 Emotional awareness

While Rachman (1980) focused his discussion of emotional processing on anxiety disorders linked to discrete stimuli such as obsessions and phobias, Teasdale (1999) sought to explore emotional processing in relation to emotional states such as depression that were less closely linked to discrete stimuli. Hoping to illustrate the role of emotional processing in the prevention of relapse and recurrence of depression, he proposed that effective emotional processing, which would lead to changes in the ability of triggering cues to reactivate depressive symptoms at times of potential relapse, would be a useful coping strategy in response to dysphoric mood. His model of emotional processing emphasized the awareness and experience of emotions in psychotherapy and effective emotional processing focused primarily on changing emotional responses to internal affective events and thoughts so that they became short lived rather than the first stages of an escalating process (Teasdale, 1999).

Teasdale (1999) proposed a multi-level model of Interacting Cognitive Subsystems (ICS) which identified different types of mental codes related to different aspects of the emotional experience. Within his information processing framework the cognitive subsystems involved the organization and transformation of patterns of information in one mental code into patterns of information in another code. Some codes were simple and related directly to basic sensory data where explicit meanings were present (propositional code) while other codes, relating to the products of further processing of that data, were more complex, representing a higher order of meaning and deeper interrelationships extracted from the experience (implicational codes). Interaction between the two levels of coding, according to Teasdale (1999), was essential for meaningful processing. According to him, in a person with depressive symptomatology, there is a continuous creation and regeneration of implicational codes that reinforce depression. Successful processing relies
on changing higher order meanings derived from experiences such that dysfunctional emotional schema are replaced by alternative models in the memory and when relevant emotion-related probe stimuli are activated the new schematic models rather than the old will be accessed to determine emotional response (Teasdale, 1999).

1.3.1.2. Emotional arousal

Hunt (1998) has also explored the role of emotional processing in the management of depression. However, rather than exploring emotional experience in terms of emotional awareness (as Teasdale did) his work focused on emotional arousal. In his study involving 54 female and 53 male psychology students in the USA, Hunt (1998) sought to explore whether emotional processing would help people in recovering after a depressing life event and whether emotional processing was an equally or more effective coping strategy than distraction or unemotional cognitive restructuring and problem solving. To ensure that all participants do not have any existing depressive symptoms, underwent a covert, moderately depressing negative mood induction that anger and frustrate them, they were screened with BDI (Beck et al., 1961) prior to inclusion. Participants were then randomly assigned to one of three groups and given an essay to write; an emotional processing group was encouraged to think in depth about the cause of their distress and any negative implications of the event, a distraction group were encouraged to refocus their attention on pleasurable events and a disputation group were encouraged to challenge the fairness and relevance of the mood induction they had received. Results showed that participants in the emotional processing group had better scores in a subsequent mood questionnaire (The Multiple Affect Adjective Check list; Zuckerman et al., 1983) than the other two groups, leading to the conclusion that emotional processing is a beneficial coping strategy in the face of depressing life events (Hunt, 1998).

1.3.1.3 Emotional appraisal

Foa and Kozak (1986) have extended and developed the concept of emotional processing of Lang (1979) and Rachman (1980) to describe emotional processing in terms of fear networks. They have defined emotional processing as the modification of memory structures that underlie emotions and described how corrective information can be incorporated into these structures to redefine the memory in a more positive way (Foa & Kozak, 1986). They proposed that emotions are represented by information structures in the memory and when an information structure that serves as a program to avoid danger is activated then anxiety is triggered. When a trigger activates the fear network, information stored will then enter the conscious mind and processing of the fear emotion occurs. They
maintained that there are two conditions that underlie emotional processing and are required to reduce pathological distress. In the first place the cognitive structure underlying the pathological fear must be activated; in other words the person must be exposed to a fear trigger that causes distress in order that the information structure ‘comes out of storage’ and is available for modification. Secondly, new cognitive information that is incompatible with the underlying structure must be integrated so that a new understanding can be attained, causing a reduction in the fear (Foa & Kozak, 1986). In contrast to Rachman, who considered emotional processing as a mechanism to decrease emotional responses, Foa and Kosak (1986) believed that successful processing depended on the incorporation of new information about the fear into the existing structure which would challenge the fear structure, resulting in either a decrease or an increase in the fear. Thus emotional responses can decrease or increase with experience (Foa & Kozak, 1986).

1.3.1.4 Emotional regulation

Gross (2002) approached the exploration of emotional processing by considering ‘emotion regulation strategies’ which focused on the way emotions are controlled in a positive or negative way, resulting in an increase or decrease in emotional disturbance or wellbeing. He proposed that different forms of emotion regulation have different consequences. He further identified two commonly used emotion regulation strategies, namely reappraisal (resulting in a change in the way a situation is construed so as to decrease the emotional impact) and suppression (which involves concealing outward signs of inner emotional conflict) (Gross, 2002). In his model of emotional processing the sequence begins with a psychologically relevant trigger which can be external or internal to the individual followed by an appraisal of an event and the emotional response, which might be automatic or controlled and conscious or unconscious (Gross, 2002). What appears to be missing in Gross’s model of emotional processing, however, is the actual emotion experienced after appraisal of the event and before the expression is controlled. A better understanding of how reappraisal and suppression regulate the expression and awareness of the experience may be helpful.

The aforesaid review of various constructs related to emotional processing brings to fore the fact that researchers have viewed emotional processing from different perspectives. Some have focused on emotional awareness while others emphasized on the arousal component of emotions. Similarly, there are researchers who equate emotional processing to emotion regulation. Despite, this difference in emphasis on the different facets or components of emotions in conceptualization of emotional processing, all attempt to refer
to the same process or phenomena i.e., dealing with or handling the emotions in such a way
that it becomes a source of growth, development, health and well-being. Though most of
the theorizations of emotional processing focus on a limited aspect or some components of
emotions, the Baker and colleagues’ (2007a) account of emotional processing appear to be
more comprehensive as it assimilates most of the components of emotions and the earlier
concepts related to emotional processing.

Further, this difference in the perspective and use of different facets of emotions
(such as emotional awareness or arousal) has led researchers to propose different account
and conceptual framework of emotional processing. The next sections and subsections are
aimed at reviewing some the common conceptual and theoretical models of emotional
processing followed by a separate section devoted to description and review of the

1.3.2 The cognitive behavioral models of emotional processing

The concept of emotional processing has been used by many researchers to explain
the individual differences in mental health problems and specific manifestations of
psychopathology. This section describes the three important conceptual frameworks of
defining and understanding emotional processing from the cognitive-behavioral
perspective. The another model of emotional processing proposed by Baker and colleagues
(Baker, 2001; 2004, Baker et al., 2007) that is also generally classified as cognitive-
behavioral model (see Auszra & Greenberg, 2007 for a review) has been dealt with in a
little detail in the next section as the present research is based on this model.

1.3.2.1 The Rachman’s model of emotional processing

Perhaps the most important work for many researchers studying emotional
processing is that of Rachman, a psychologist, who first described emotional processing in
1980 when he sought to identify the factors that promote and impede adaptation to
emotional disturbances (Rachman, 1980). Bringing several sets of apparently disconnected
findings and observations into the same framework, Rachman (1980) conceived emotional
processing as a factor that promotes and/or impedes the adaption to negative experiences
and stressful events. He used this term to refer to the way in which an individual processes
stressful life events and defined it as: “a process whereby emotional disturbances are
absorbed, and decline to the extent that other experiences and behaviour can proceed
without disruption” (p.51).
Rachman (1980) suggested that successful emotional processing occurs when emotional disturbances (either related to major life events or smaller daily events) are absorbed, normal behavior resumed and the individual could talk about the event or be reminded of it without experiencing distress. Unsatisfactory emotional processing in contrast is signaled by the persistence or return of intrusive signs of emotional activity such as nightmares, phobias and inappropriate expressions of emotion (Rachman, 1980).

Rachman (1980) initially considered emotional processing as an explanatory variable for understanding the dynamics of anxiety disorder but later restated and extended this concept for understanding post-traumatic stress disorder as well. He proposed that emotional processing relates to the way a person absorbs and processes stressful or disturbing experiences so that they do not impact or intrude on the maintenance of everyday life and behavior (Rachman, 2001). This process of absorbing or processing of emotions not only relates to major life events such as relationship breakdown, loss of a loved one or loss of employment, but also to smaller, daily events such as an argument with or rudeness experienced from a colleague. Rachman (1980, 2001) further argued that, though, most people successfully process majority of stressful or aversive events, failure to process negative emotions emanating from aversive events is likely to operate at a high arousal level with significant intrusion from their feelings and consequently leading to difficulties in performing day-to-day activities. Further, incomplete emotional processing is often associated with excessive and prolonged avoidance or inhibition of negative emotional experiences that is likely to prevent its integration and resolution.

Thus, according to this framework, for any reason if people fail to process negative events and associate an emotion (for example, through denial or lack of emotional understanding) then the memory of that event remains emotionally charged and likely to cause distress in the future (Baker, 2007). Rachman (1980) argued that incomplete processing of emotions reflects in form of direct or indirect signs and symptoms such as the return of fears, obsessions and intrusive thoughts. Other signs of incomplete or impaired emotional processing include repeated or intrusive memories of the stressful event, a re-living of the original emotions felt, pre-occupation with the event, poor concentration and inability to sleep. On the other hand, successful emotional processing is reflected by the return to uninterrupted routine behavior after an emotional disturbance.

According to Rachman (2001) the identification of factors impeding/ facilitating the processing of emotions is, based on both clinical observation and on probability based on psychological characteristics and personality factors. People with high levels of self-
efficacy and competence are more likely to successfully process disturbing events than those with high levels of neuroticism, extreme introversion and a sense of incompetence (Rachman, 2001). Those in a state of dysphoria, or experiencing illness or fatigue are more likely to encounter difficulties processing their emotions, and stimuli giving rise to these difficulties could be unpredictable or uncontrollable, leading to unfamiliarity or feelings of danger.

Following the work of Rachman (1980), which led to a growing understanding of how emotions are managed, psychologists began to question what factors inhibit emotional processing and to seek ways of overcoming them. A number of studies explored aspects of emotional processing such as emotional awareness (Teasdale, 1999, Corrigan, 2004) and arousal (Hunt 1998), while others gave more emphasis to emotional appraisal and the impact of past memories and schemas (Foa & Kozak, 1986; Stopa & Clark, 1993) or to the regulation of emotions (Gross, 2007).

Although Rachman’s model definitely provides a framework for understanding the role of emotions in the development of physical and mental health problems, it has several limitations as well. For example, the success or failure of emotional processing in the Rachman’s conceptualization is defined in terms of behavioral outcomes particularly the symptoms itself and thus undermines its utility in examining the relationship of emotional processing with symptoms of illness. Further, the “processing”, the central component of the construct is also missing in the Rachman’s conceptualization as he has not defined the mechanisms that promote and/or impede the processing of emotions.

1.3.2.2 Other models of emotional processing

Foa and Kozak (1986) elaborated Rachman’s original theory and defined emotional processing as the modification of memory structures underlying dysfunctional emotion. They proposed two necessary conditions for successful emotional processing to occur in the context of the treatment of pathologic fear: a) the fear structure must be activated, as indicated by physiological responses and verbal self-reports: and b) new information incompatible with the elements of the fear structure must be incorporated, to replace dysfunctional elements with realistic ones. Successful emotional processing is then indicated by habituation of anxiety in response to distressing stimuli within and across sessions. This emotional processing theory was later expanded by Rachman for the conceptualization and treatment of posttraumatic stress disorder (Rachman, 2001; Rauch & Foa, 2006).
Teasdale (1999) has also expanded the concept of emotional processing and has applied it to the prevention of relapse and recurrence in depression. According to Teasdale (1999), effective emotional processing should reduce the ability of internal affective events and thoughts (such as sad mood or negative self-evaluations) to reactivate depressogenic processing cycles at times of potential relapse. He defined such processing as processing that leads to change in affect-related implicational schematic models supporting the processing configurations that produced dysfunctional emotion. He suggested that such beneficial processing is best facilitated in a particular mode of mind in which sensations, thoughts, and feelings are directly and intimately experienced in awareness. The goal of therapy would then be to teach clients intentional control skills to deliberatively switch into a mode of mind Teasdale (1999) refers to as “mindful experiencing/ being”.

1.3.3 The Baker’s Model of Emotional Processing

The present study is based on the Baker’s model of emotional processing which is in fact extension and further elaboration of the Rachman’s model taken into account its various limitations. Baker (Baker, 2001, 2004) also recognized the limitations in the Rachman’s model of emotional processing and thus attempted to develop a model that focuses not only on the signs and symptoms of unprocessed emotions but also on the various underlying mechanisms involved in the processing of emotions. Baker (2001) adopted Rachman’s original definition and proposed a conceptual model specifying the underlying mechanisms involved in successful emotional processing. According to Baker (2001, 2004) for an individual to fully absorb distressing emotional reactions to negative events, s/he has to be aware of his/her emotional reaction, experience it as a psychological whole, a “Gestalt”, label it, and then link it to its preceding causes. Baker, Thomas, Thomas and Owens (2007) developed an emotional processing scale based on this model attempting to identity difficulties in processing emotions and relating these difficulties to different psychological and psychosomatic disorders.

The term ‘processing’ is most frequently used in the area of psychology and signifies the psychological processes or mechanisms involved in transforming a stimulus event (e.g. auditory, visual information) to a mental state such as understanding the meaning of words, recognizing faces, retaining information etc. (Dorset Research & Development Support Unit, 2003). Taking this wide meaning of the term ‘processing’ in mind, the emotional processing as per the Rachman’s (Rachman, 1980) and Baker’s (Baker, 2001; Baker et al., 2007) conceptualization can be defined as the psychological and/or psycho-physiological processes or mechanisms involved in converting the distressed
emotional reactions into non-distressed reactions (Dorset Research & Development Support Unit, 2003).

The emotional processing models discussed above have a number of merits. However each approach focuses solely on one or two specific factors that contribute to emotion management and none of these models considered emotional processing as one comprehensive process commencing with the triggering event and its appraisal, leading to the experience of the emotion and the subsequent controlled expression. The work of Baker and colleagues (Baker, 2004, Baker et al., 2007b, Baker et al., 2010) sought to integrate all the processes found in the literature above (the trigger, past memories, appraisal, awareness, expression and control) into one complete and dynamic process.

Baker explored and further developed the work of Rachman (Baker, 2007). He and his colleagues developed a scale to measure factors which inhibit successful emotional processing (Baker et al., 2007b). According to Baker the process of absorbing emotions relates not only to major life events (such as relationship breakdown, loss of a loved one or loss of employment), but also to minor daily events such as an argument or rudeness from a colleague (Baker et al. 2007b). He believed that most people effectively process the majority of difficult life events but if for some reason they cannot do it (for example because of denial, or lack of emotional understanding), the memory of the event will still be emotionally charged, potentially causing distress in the future (Baker, 2007). Signs of incomplete or impaired emotional processing include repeated or intrusive memories of the stressful event, a re-living of the original emotions felt, pre-occupation with the event, poor concentration and inability to sleep. For emotional processing to work efficiently (in other words for normal uninterrupted behavior to return after an emotional disturbance), three conditions must be met. Firstly, there must be evidence of emotional disturbance occurring, secondly, the disturbance must decline and finally, there must then be a return to normal routine behavior (Rachman, 1980).

Although for the most part, people absorb disturbing emotional experiences satisfactorily, the time taken to process or absorb emotions effectively varies from person to person, depending on the degree of hurt experienced (Baker et al., 2007b). Eventually after time, however, the hurt or pain recedes, mourning for bereavement subsides, a broken relationship ceases to cause concern or an insult no longer angers and the person is able to return to ‘normal life’ (Baker, 2007b).

As stated above, previous attempts to measure emotional processing had focused on single aspects of emotions (control, regulation, intelligence, frequency, intensity and
alexithymia), all of which were relevant but measured only a small part of the whole process. Baker and colleagues first attempted to understand all the dimensions impacting on the normal sequence of emotional processing (2007b). In order to test an emerging theory that patients suffering from panic episodes processed their emotions ineffectively (with the suppression or control of emotions leading to a panic attack). Baker and colleagues developed a measurement tool in the form of a questionnaire that attempted to measure those factors inhibiting the effective management of all aspects of emotions (Baker et al. 2007; Baker et al., 2010).

Underpinning the development of the Emotional Processing Scale (EPS) was the identification of a number of psychological mechanisms which can impede the processing of emotional events (Baker, 2007). Baker suggests that the emotional processing system is rather like a second immune system that protects the body from emotional hurt and trauma rather than physical harm. Effective emotional processing, which helps to dissolve negative experiences, is described as emotional healing (Baker, 2007).

Thus, for Baker, Emotional processing involves a number of components – registering, appraising and memorizing the disturbing event, replaying the memories, interpreting the event, labeling and linking the emotions experienced in the light of that interpretation and expressing the emotion in a positive or negative way (Baker et al., 2004) (see Figure 1.1).
1.3.3.1 Different components of the Baker’s model of emotional processing

The aforesaid model of emotional processing as proposed by Baker and colleagues includes several components and stages (as evident in Figure 1.1). Following is a brief description of the major components of the said model of emotional processing.

(i) Input event

Baker (2007) describes the trigger for the emotion as an ‘input event’ which might be a traumatic event or a small slight or hurt. The person experiencing the input event immediately interprets or appraises it in the light of prior experiences, memories and personal values and this appraisal consequently affects the way in which s/he experiences the emotion, such that, for example, a comment from a colleague who has previously insulted that person may be interpreted in such a way that it engenders feelings of anger which are experienced physically as tension, and a flushing of the face, and expressed through perhaps shouting and arguing (Baker, 2007). The trigger event may be apparently small but is generally unpleasant for the person, and can be registered consciously or unconsciously. Problems can occur at this stage in processing if a person fails to respond to the event, thus causing a block in feeling emotion, or if too much feeling is engendered by the appraisal of the event.

Appraisal of the event in the light of previous memories and schema is central to the emotional processing work of a number of authors (Foa & Kosak, 1986; Gross 2002). Consistent with the model of emotional processing by Gross (2002), appraisal of the event is usually rapid, unconscious and based on past memory and is essential for the sequence of emotional processing to start (Baker, 2007). Where Baker’s model makes understanding of the process more comprehensive than Gross’s, however, is consideration of the emotional experience that follows the appraisal.

(ii) Emotional experience

The second phase of emotional processing in Baker’s Model, is characterized by the type of emotion experienced. Similar to the work of Teasdale (1999) where processing depends on the mental coding applied to patterns of information, Baker’s model of emotional processing emphasizes on how the emotional experience because of the unique interpretation each person places on the trigger event, depending on his/her appraisal of the event (Baker, 2007). Emotions, once appraised, are experienced as gestalt (such as fear, rather than the component bodily sensations of shaking and sweating) and awareness of the emotion and its component parts. However, some people process this phase inadequately.
and fail to experience the gestalt or the psychological meaning of the emotion and instead concentrate only on the somatic components that make up the emotion (Baker, 2007).

With awareness of the emotion comes conscious or unconscious labeling of the emotion and a linking of the emotion to the event which caused it. According to Baker this is an essential element of normal emotional experience (Baker et al., 2007)

(iii) Emotional expression

The third phase in the emotional processing model is emotional expression which is closely linked to the emotional experience. This can be through behavioral manifestation, bodily reactions or thoughtful contemplation (Baker, 2007). Negative emotions are normally expressed through action (which can be direct, such as smacking a child who has angered its parents or indirect, by listening to music to calm down), speech (expressed directly perhaps by swearing at the perpetrator of the emotion or indirectly through crying alone) or through reflection (expressed directly by talking it through with a friend or indirectly by perhaps meditating). Expression can therefore constructively seek out a resolution or be destructive (Baker, 2007).

(iv) Control of emotions

Embracing each stage of Baker’s emotional processing model is the regulation of emotions. Consistent with the aforementioned work of Gross (2002), which showed that regulatory processes could affect the appraisal or the expression of the emotion, Baker’s model shows that emotions can be controlled at each stage of the process.

In addition to the natural processing of emotions (input → experience → expression) individuals have different ways of regulating or controlling their feelings which appear to be dependent on factors such as childhood, personality and culture (Baker, 2007). A child may be brought up in a family which naturally expresses emotions or conversely where a ‘stiff upper lip’ is required; peoples’ culture may also have influenced their boundaries in relation to what emotional expression is acceptable. Control of emotions can occur at any stage in the processing sequence. Some people may make efforts to avoid any disturbing events thus preventing the input stage occurring while others may try to avoid or stifle the experiencing of the emotion, becoming emotionally numb. They control the expression of their emotions (Baker, 2007). It is important to be able to establish some element of control over emotions in order to interact appropriately with other people, but difficulties can occur if a person applies excessive control, thus inhibiting all feeling or conversely is unable to exert any control, allowing actions or words to cause discomfort to others (Baker, 2007).
The way in which an individual processes their emotional experiences can thus be viewed as important with respect to how they facilitate their management of everyday life and could possibly prevent more serious problems developing in the future (Baker, 2007; Russell, 2003). Successful processing is indicated when a person is able to talk or be reminded about an event without experiencing distress, and normal behavior can proceed without disruption (Rachman, 2001).

Taken together, the above mentioned review of various models of emotional processing brings to fore that Baker’s model appears to present a more comprehensive and dynamic model of emotional processing than other models and approaches. It provides a continuum, integrating all the phases identified by other models, thus enabling the user to examine emotional processing as a more complete process. Arguably one thing that the model does not account for, which might make it more comprehensive, is that emotional processing can be conscious or unconscious and knowledge of that might help explain how emotions are processed at different stages (Santonastaso, 2010).

Apart from theoretical comprehensiveness, the Baker’s model of emotional processing also appears to be more suitable for undertaking research as this has also been operationalized and a scale [the Emotional Processing Scale (EPS)] has been developed to emotional processing deficits related to different stages of this model (Baker et al., 2010). The tool, which was refined from a 53-item self-report scale to the final 25-item scale used in this study, is explained in more detail in Chapter explaining Methodology. The EPS has been used to explore the emotional processing of several groups of people. Colorectal cancer, chronic back pain, fibromyalgia and anxiety disorders have each been investigated using the EPS (Lothian, 2002; Baker et al., 2004).

Cultural differences in the processing of emotions have also been examined using EPS (Santonastaso, 2010). A cross-sectional study of patients suffering from colorectal cancer (Lothian, 2001) using EPS, showed significant differences in the emotional processing of patients with cancer as compared with a healthy control group and identified a pattern of emotional processing that was related specifically to the disorder. The cross-sectional nature of the study prevented any conclusions being reached, however, about whether poor emotional processing preceded the development of the cancer (Lothian, 2002). A study comparing the emotional processing of 50 patients with panic disorder with healthy counterparts found, using the EPS as a measure revealed that the patients with panic disorder had greater awareness of their feelings, greater difficulty labeling them and exerted greater control over their emotional experience (Baker et al., 2004). Major cultural
differences in emotional processing were identified between English, Italian and Japanese participants, and especially between east and west culture, in a recent study, which used the EPS to measure emotional processing (Santonastaso, 2010).

As Baker and associates (2007) argue, that expression of emotion is seen as an output. Examples of problems that could arise at this stage include negative values and beliefs held about expressing emotions or, conversely, an inability to control strong emotions. Though, emotional processing influences health directly, there may be some mechanisms that may mediate this relationship. Negative affect may potentially be one of those (Dubey & Pandey, 2013). In the following section, some of these mediating factors have been explored.

1.4 Emotion related beliefs: Beliefs about emotion expression and negative mood regulation expectancies

Emotion theory has changed quite dramatically during the last three decades. To a large extent this change has been due to a keen interest in the role of cognition in emotion. The emergence of “cognitive emotion theory” (e.g., Lazarus, 1991), has stimulated a considerable body of research where beliefs are viewed as major antecedents of emotions. Frijda, Antony, Manstead and Bem (2000) defined Beliefs “as states that link a person or group or object or concept with one or more attributes and this is held by the believer to be true”. Thus a proposition that a person considers to be true may also be defined as a belief, a point that is particularly emphasized by what is known as “appraisal theory” (e.g., Scherer, 1999). According to appraisal theory, emotions result from how the individual believes the world to be, how events are believed to have come about, and what implications events are believed to have. Beliefs thus are regarded as one of the major determinants of emotion, and therefore an important part of the study of emotion can properly be seen as falling under the umbrella of cognitive psychology.

However, the reverse direction of influence in the relation between emotion and cognition has also received scant attention. This is in itself rather odd, because one might easily regard emotions as being among the determinants of an individual's beliefs. They can be seen as influencing the content and the strength of an individual's beliefs, and their resistance to modification. Indeed, such an influence has traditionally been considered to be one of the most important things to be said about emotions. The influence of emotions upon beliefs can be viewed as the port through which emotions exert their influence upon human life.
The notion that emotions determine beliefs was a common assumption during much of human history, and probably still is. It was the starting point of the views of human well-being in Epicurean and Stoic philosophy. In most discussions of the relations between emotion and cognition, the emphasis has been on the assumption that the former distorts the latter. During the first half of the twentieth century psychology tended to focus upon this issue. Young (1943) conceived emotion as a disturbance of organized behavior and thought; so did Hebb (1949) in his early work. At the same time, the influence of emotions upon the content of beliefs represented one of the dogmas of psychoanalytically inspired thought. Then the interest in emotional influences upon beliefs receded. To some extent, this was due to the rise of cognitive psychology. Earlier it was assumed that emotion is a determining factor of belief but from the inception of cognitive psychology the idea emerged that beliefs are having an influence on emotions.

As mentioned in the beginning of this chapter (see 1.1 Background) that beliefs may be associated with any attribute including emotions and such beliefs may be viewed from two different perspectives – entity theory (a belief that attribute under consideration is fixed or non-malleable) and incremental theory (a belief that attribute under consideration is malleable). Though, emotional beliefs may be related to its different aspects, the present study focuses on beliefs about experience and expression of emotions (as conceptualized and operationalized by Rimes and Chalder (2010) and belief about one’s confidence to change negative mood (hereafter referred as negative mood regulation expectancies). In the present study the said two beliefs have been jointly referred as ‘emotion related beliefs’ and the findings of the present study later on also provides empirical evidence to combine the said beliefs together (see Chapter on Results). Here it is worth mentioning that belief about emotion expression though has been treated as one-dimensional construct by Rimes and Chalder (2010) while developing the Hindi version of the measure of this construct the present investigator observed a two factor solution both of which were interpretable and theoretically congruent. Thus, in the present study the two belief about emotion expression has been used as a two dimensional construct reflecting ‘acceptability beliefs about emotion’ and non-acceptability beliefs about emotion’. Following sections present brief description of the said two types of emotion related beliefs and their implications for mental health.
1.4.1 Beliefs about experience and expression of emotion: Concept, measurement and implications for mental health

Beliefs imply certain expectancies, which in turn, guide behavior (Olson, Roese, & Zanna, 1996). The concept of beliefs about the unacceptability of experiencing negative emotions have originated from a cognitive approach for chronic fatigue syndrome and has been generally defined as a belief about acceptability or unacceptability of emotional experience and expression. Most often this construct has been used for explaining the clinical syndromes and has been conceptualized as beliefs that a person hold that if he/she experiences negative emotion it would not be accepted or would be considered as a sign of weakness (see Rimes & Chalder, 2010). It is assumed that such beliefs occur due to the fear of social disapproval (adverse social consequences) of experience or expression of negative emotions.

Though while developing tool to measure such beliefs researchers have used negatively keyed items that also reflect the opposite, they have used reverse scoring to reflect the unacceptability of experiencing or expressing negative emotions (e.g., Rimes & Chalder, 2010). However, the present researcher while evaluating the psychometric property of the tool developed by Rimes and Chalder (2010) observed two factors in which the positively keyed items loaded on one factor and the negatively keyed items on the other (Dubey, Mishra, & Pandey, 2014). These findings suggest that the beliefs about experience and expression of emotions may be not necessarily negative (i.e., unacceptability beliefs) but may also be positive (acceptability beliefs). Accordingly, the authors (Dubey et al., 2010) labeled the two factors as ‘acceptability beliefs about emotions’ and ‘non-acceptability belief about emotions’ (see Method chapter for details). The present research, thus, adopts this two dimensional nature of the construct of belief about emotions. However, most of the studies examining the relationship of this construct with mental health have considered this belief representing the unacceptability of experiencing and expression of emotions.

Beliefs about the unacceptability of experiencing negative emotions, or the adverse consequences of expressing such feelings, have been reported in individuals with a range of different problems, including chronic fatigue syndrome (Surawy, Hackmann, Hawton & Sharpe, 1995) irritable bowel syndrome (Ali et al., 2000), somatization disorder (Woolfolk & Allen, 2007), eating disorders (Corstorphine, 2006), social phobia (Clark & Wells, 1995) depression (Jack, 1991), posttraumatic stress disorder (Cramer, Gallant & Langlois, 2005), and borderline personality disorder (Linehan, 1993). It has been suggested that such beliefs
are more likely to develop in individuals of difficulties or negative feelings was met with a lack of sympathy or punishment (Surawy, Hackmann, Hawton, & Sharpe, 1995; Linehan, 1993).

Cognitive behavioral models propose that beliefs about the unacceptability of experiencing or expressing negative thoughts and emotions can play a central role in the development and maintenance of clinical problems (Surawy, Hackmann, Hawton, & Sharpe, 1995) and can be associated with a poorer prognosis or treatment outcome (Corstorphine, 2006). Such beliefs may contribute to difficulties in a range of ways. For example, these beliefs may lead to unwanted feelings being ignored, which could retard the development of self-awareness and self-understanding and, hence, the ability to look after oneself appropriately (Kennedy-Moore & Watson, 2001). If emotionally distressing thoughts are actively suppressed, this is likely to have a counterproductive effect, as there is substantial evidence that such suppression can result in the maintenance of distress (Wenzlaff & Wegner, 2000). It has also been suggested that in individuals who are already emotionally vulnerable, inhibiting one's feelings can contribute to feelings of numbness, emptiness and an absence of a strong sense of identity (Linehan, 1993). Furthermore, believing that it is unacceptable to express one's feelings is also likely to cause interpersonal problems, for example, by causing relationship difficulties to remain unresolved (Linehan, 1993).

The belief that the expression of negative emotions or distress will be evaluated negatively by others can lead to such behavior that is intended to prevent or minimize a feared outcome (safety-seeking behaviors), to try to prevent this feared outcome, which can unconsciously maintain unhelpful beliefs and distress. For example, people who are concerned about appearing anxious can use strategies to try to hide their anxiety such as avoidance of eye contact, saying very little or over-rehearsing speech, which can actually increase their social anxiety and/or impair social performance. People who are feeling depressed may attempt to hide their low mood from others by avoiding social interaction, but the resulting reduced opportunity for positive reinforcement can lead to even lower mood and passivity.

In cognitive behavioral models of medically unexplained symptoms, it has been suggested that beliefs about the unacceptability of negative emotions lead people to try to hide their feelings and not asking for help, which in turn can lead to increases in distress and associated mental and physical effects such as fatigue, concentration/memory problems, bowel disturbance, and so on (Surawy, Hackmann, Hawton, & Sharpe, 1995).
Believing that psychological distress is unacceptable may also lead these individuals to favor a physical disease explanation for their symptoms (Surawy, Hackmann, Hawton, & Sharpe, 1995). Such attributional preferences should be viewed within the context of a culture in which psychological difficulties and distress continue to be stigmatized (Thornicroft, 2006).

It could be argued that beliefs about the unacceptability of negative emotions are a form of excessively high standards or perfectionism regarding one's emotional experience and expression. In problems such as chronic fatigue syndrome (CFS) and anorexia nervosa, in addition to such attitudes to emotions, it has been noted that more general perfectionist beliefs also tend to occur (Surawy, Hackmann, Hawton, & Sharpe, 1995; Schmidt & Treasure, 2006). These may be apparent across different domains, with the individual believing that failure to meet high standards indicates failure as a person or unacceptability to others. This type of conditional acceptance belief has been described as a form of negative perfectionism (Campbell & Di Paula, 2002). It has also been noted that individuals with chronic fatigue syndrome often have high standards about moral conduct, including the importance of putting other people before themselves, sometimes described as ‘self-sacrifice' (Young, 1999).

1.4.1.1 Measurement of beliefs about emotion

Several tools and measures have been developed to measure such emotional beliefs. However, among all the measures, the beliefs about emotions Scale (BES; Rimes & Chalder, 2010) is the most specific and focused measure. Following section presents a brief review of some of the measures of such beliefs.

The Attitudes towards Emotional Expression scale (Joseph, Williams, Irwing, & Cammock, 1994): This scale was developed to test the hypothesis that negative attitudes towards emotional expression, in the form of relatively consistent and rigidly applied rules for living, could lead to strong avoidant tendencies that disrupt emotional expression (Kennedy-Moore & Watson, 1999). The AEE is a 20-item self-report measure of four underlying factors reflecting, first, the belief that the expression of emotions is a sign of weakness, second, the belief that emotions should be kept under control, third, the belief that other people will be rejecting, and fourth, the tendency to express emotions.

Multidimensional Perfectionism Scale (Hewitt & Flett, 1989; 1991b):- This scale is a 45-item measure of self-oriented perfectionism (e.g., One of my goals is to be perfect in everything I do), other-oriented perfectionism (e.g., I have high expectations for the people
who are important to me), and socially prescribed perfectionism (e.g., My family expects me to be perfect). Participants make 7 point ratings of their degree of agreement with the items. Several items are reverse-keyed, and the subscales are scored such that higher scores reflect greater perfectionism.

Beliefs about Emotions Scale (Rimes & Chalder, 2010):- This 12 item scale was developed to represent the types of beliefs about the unacceptability of experiencing and expressing emotions that have been specified in clinical reports and cognitive models. A Hindi version of the scale developed by the researcher in collaboration with the supervisor was used in the present study (BES-H; Dubey, Mishra & Pandey, 2014). However, while conducting the pilot study this scale was not found to be one-dimensional. The exploratory factor analysis revealed two factors which were further labeled as “acceptability belief about emotions” and “non-acceptability belief about emotions”.

1.4.2 Generalized expectancies for negative mood regulation

In 1980’s a group of researchers noted that the belief or expectancies about successfully regulating the negative emotional experiences may significantly influence one’s coping efforts and outcome and as a result their health status as well (Catanzaro & Mearns, 1999). Such, observations were explained in light of the social learning theory which recognizes that engagement in a behavior is determined by the belief that the behavior will lead to reinforcing consequences (Rotter, 1954, 1982). Thus, according to this theory an individual’s belief that his/her behavior will lead to a desired outcome increases the likelihood of engagement in such behavior.

Social learning theory (SLT) asserts that expectations regarding the likely outcomes of one's behavior and the desirability of these consequences determine the behaviors a person exhibits (Rotter, 1954). Kirsch (1985) elaborated on SLT by introducing the concept of response expectancies, which are generalized expectancies regarding non-volitional responses (i.e., beliefs about the likelihood of responses perceived as automatic), such as emotions, sexual arousal, and conversion symptoms. Response expectancies are unique from expectancies regarding voluntary behavior in that the mere existence of response expectancy increases the likelihood of that response's occurrence, regardless of whether the person engages in volitional behavior that might bring about the response. That is, if someone believes a non-volitional response is likely to happen, then the response is more likely to happen. For example, if people believe that they have the ability to make themselves feel better, they are more likely to feel better, regardless of whether any actions
are taken. This concept suggests how powerful expectations and beliefs can be in determining automatic responses.

Negative mood regulation expectancies (Catanzaro & Mearns, 1990) or the “belief in one’s ability to terminate or alleviate a negative mood state” (Catanzaro & Mearns, 1999, p. 72) refer to expectations of repair success, that one can do something to effectively repair a negative state. NMRE contain self efficacy beliefs and general outcomes expectancies (Kirsch, Mearns, & Catanzaro, 1990) and are rooted in social– cognitive theory (Bandura, 1999; Mischel & Shoda, 1999), which emphasizes that motivation (for a given outcome) is a function of the value of the outcome and expectancies of reaching it (see Bandura, 1997; Maddux, 2002).

The literature suggests several reasons to expect that these expectancies predict repair ability and have been consistently linked with affective outcomes suggestive of regulatory facility. A range of studies (e.g., Catanzaro, Wash, Kirsch, & Mearns, 2000; Mearns & Cain, 2003) reveal that those high (vs. low) in NMRE report less depression and dysphoria (see Catanzaro & Mearns, 1999).

This construct is usually assessed by using the Negative Mood Regulation Scale developed by Catanzaro and Mearns (1990) which measures generalized expectancy that some overt behavior or cognition will alleviate a negative state or induce a positive one. Expectations or beliefs concerning negative feelings include the ability to change a negative state as well as tolerate a negative state. A Hindi version of the Negative Mood Regulation Expectancy Scale (Dubey, Mishra & Pandey, 2013) was developed for the present study to measure this construct.

The ‘emotion related beliefs’ has been defined as beliefs and/or expectancies about one’s anticipated outcomes of expression of negative emotions and the confidence in one’s ability to regulate negative mood. To operationalize and measure the construct of emotion related beliefs two measures were used- The Beliefs about Emotions Scale (Rimes & Chalder, 2010) and Negative Mood Regulation Scale (Catanzaro & Mearns, 1990). For the present study the term ‘emotion related beliefs’ has been used to jointly refer to the beliefs about emotion expression and the generalized expectancy to regulate negative mood.

**1.5 Negative Affect**

Affect is considered the perception or subjective feeling of an emotion, or a physiological indication of emotion, regardless of conscious perception, such as facial expressions or physiological responses to stimuli. Affect theory was coined by Silvan
Tomkins and was, at first, an attempt to refer to the biological components of emotions (Ekman, 2004). Watson and colleagues (1988) indicated that the two broad factors of affect namely Positive Affect (PA) and Negative Affect (NA) are the dominant factors in reports of mood which refer more to emotional climate, whereas affect is more of emotional weather. They and other researchers (c.f., Paykel, 1992), indicated that these two factors can easily be confused as existing on the same continuum, however they clarify that they are quite distinctive and orthogonal dimensions.

NA is a “catch all” construct blanketing the full range of the negative spectrum of emotion. Watson and colleagues (1988) defined NA as a broad category of subjective distress including a wide range of negative emotional states, such as behaviors and feelings associated with anxiety, depression, sadness, and anger (Paykel, 1992). Although NA is strongly correlated with negative mood states such as anxiety and depression, it is considered more of a broad index of psychological distress, rather than a diagnostic category or construct capable of differentiating between psychological disorders (Watson et al., 1988). Where NA is a broad indicator of psychological distress, depression is a more specific one. For quite some time, debate has surrounded the issue of differentiating disorders such as depression and anxiety from either one another or from the idea of NA (Watson & Clark, 1988; Foa & Foa, 1982). The argument focused on the idea that although affect-based disorders, such as depression and anxiety, may be perceived as separate constructs they are difficult to distinguish either empirically or by self-report because they are expressions of the common factor of NA (Crawford & Henry, 2004). However, according to the tripartite theory of emotional expression, depression is actually comprised of high NA and low PA, whereas anxiety is highly positively correlated with NA but not at all with PA (Clark & Watson, 1991; Watson et al., 1988; Watson & Clark, 1984). In this way, NA is more of a broad category pertaining to negative emotional arousal, says nothing of high or low PA, and only encompasses one component (high NA) of depression.

The Hindi version of Positive and Negative Affect Schedule (PANAS-H; 2008) was used to assess the level of negative affect in the present research.

1.6 Summary
This chapter presents a brief background for undertaking the present investigation and highlights that mental health problems and its increasing prevalence has become a major concern for psychologists and other health professional. It underscores the potential role of emotion related constructs in understanding mental health and has tried to establish
a link between emotions and mental health. Along with exploring some of the major issues in explaining the emotion – health connection, the concepts of emotional awareness, regulation and expression, emotional intelligence and alexithymia, each of which contributes to an understanding of how emotions are processed, have been examined. The concept of emotional processing has also been examined, exploring various models and approaches and looking in detail at Baker’s model of emotional processing that underpins the exploration of emotions. The chapter suggests that stressful events in life trigger an emotional response and in order to deal with these stresses effectively an individual must be able to process one’s emotions in an appropriate way. The chapter thus, concludes that the knowledge of the steps involved in emotional processing and the barriers to successful processing will be beneficial to professionals exploring the link between emotions and health. It also tried to examine the concept of emotion related beliefs with special reference to ‘beliefs about emotion expression’ (that includes two components – the acceptability and non-acceptability beliefs) and negative mood regulation expectancies that refers to belief in one’s ability to change or regulate the negative mood state. Negative affect has been though widely studied in the area of mental health and its meaning and manifestations are generally known to the researchers of this area, a brief overview of the concept of negative affect and its health correlates was also presented towards the end of this chapter.