Stressing emotions
- A single subject design study testing an emotion-focused transdiagnostic treatment for stress-related ill health

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Abstract

Individual psychological factors have been recognized to play an important role in the development of stress-related symptomatology. Despite extensive comorbidity between stress-related ill health and mood disorders, the advances in research on emotion regulation and transdiagnostics, have not been recognized in stress research to any considerable degree. In the current study, using a single subject design with multiple baselines across individuals (n=6), a transdiagnostic treatment intervention targeting maladaptive emotional regulation strategies was implemented on patients suffering from stress-related symptomatology. Results show that symptoms of exhaustion decreased in five of six participants on post-measures, with considerable convergence between measures of depression, anxiety and stress. Further investigation of treatment effects, alongside the processes linking emotion regulation and stress-related symptomatology are needed.

Keywords: Stress-related ill health, emotion regulation, Unified Protocol, transdiagnostic treatment, cognitive behavioral therapy, single subject design

1Psychology, Master’s Thesis, term 10. Supervisor: Katja Boersma
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Stress och emotioner
- Emotionsfokuserad transdiagnostisk behandling vid stressrelaterad ohälsa

Sammanfattning

*Individuella psykologiska faktorer spelar en viktig roll i utvecklingen av stressrelaterade symtom. Trots en omfattande samsjuklighet mellan å ena sidan stressrelaterad ohälsa, å andra sidan depression och ångest, har framsteg inom emotionsforskning och transdiagnostik inte uppmärksammat i någon stor utsträckning inom stressforskningen. I den aktuella studien användes en single subject design med multipla baslinjer mellan individer (n=6), för att implementera en emotionsinriktad transdiagnostisk behandling på patienter som lider av stressrelaterade symtom. Resultaten visar att fem av sex deltagare visade minskade tecken på utmattning efter genomgången behandling, med avsevärd konvergens mellan mått på depression, ångest och stress. För att kunna påvisa behandlingseffekter, samt förklara de processer som förbinder emotionsreglering och stressrelaterade symtom, behövs ytterligare forskning på området.*

*Nyckelord: Stressrelaterad ohälsa, emotionsreglering, Unified Protocol, transdiagnostisk behandling, kognitiv beteendeterapi, single subject design*

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Stort tack till:

Katja Boersma: för idén till studien, inspiration och uttröttligt engagemang
   Karin Lindblom: för engagemang och handledning
   Ann-Louise Thorén: för ett evigt bollande med lediga lokaler
   Jesper: för att du härdat ut
   Andrea: för oändlig generositet och värme
   Johan och Hillevi: för tålamod och kärlek genom denna långa höst

Deltagande personer: för den tillit ni visat
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Stressing Emotions: Emotion-focused Transdiagnostic Treatment in Stress-related Ill Health

Stress-related problems have been increasing since the mid 1980’s and despite its stabilization among adults during the last decade, it has been continuing to increase among adolescents and young adults. Further, reported stress symptoms are among the most common causes for sick leave. Absence from work result in considerable expenses, both to the individual and society (Socialstyrelsen, 2009; Försäkringskassan, 2011). This combined with the greater understanding of stress-related problems and its biological, environmental and psychological components have resulted in an upsurge in highly specialized multimodal psychological treatments for people suffering from the detrimental effects of prolonged stress (e.g. Stressmottagningen). Despite the obvious benefits of such treatments there are, due to their specialization, also limitations in availability, creating a need for well-suited intervention programs available to patients at first contact with primary health care services.

Another important observation pertaining to stress-related problems and its treatment is the shared symptomatology with other disorders. Especially the emotional disorders including anxiety disorders and depression are overrepresented in this population. This could be because of that one problem leads to the other (Schaufeli & Enzmann, 1998; Währborg, 2009). Another and perhaps complementary hypothesis could be that they share a general diathesis to develop symptoms in presence of stressors, and where symptoms might become self-perpetuating over time (Almén, 2007; Stanley & Burrows, 2005). The common ground of stress-related problems and psychopathology in general has also been implicated in the research literature, where the similarities between stress coping and emotion regulation have been highlighted (Lazarus, 1999; Wang & Saudino, 2011). Similar maintaining mechanisms have further been outlined in many problems and in the emotional disorders specifically (for a review see Gross, 1998; Gross & Thompson, 2007). In fact, in the research field of psychopathology this has given rise to a movement away from highly specialized treatments
and treatment protocols, towards identifying and treating common shared mechanisms, the so-called transdiagnostic stance (Brown & Barlow, 2009). Could it be that stress-related problems fit within a transdiagnostic stance, focusing on shared mechanisms? The current study aims to put one foundation stone in the bridge by implementing a transdiagnostic treatment package designed for emotional disorders on stress-related symptomatology, hence investigating the possibility to affect levels of perceived stress by targeting acknowledged transdiagnostic mechanisms that might be involved in the development and/or the maintenance of stress-related problems.

The thesis opens up with a summary of research, which describes the concept of stress and the transdiagnostic approach with focus on emotion and emotion regulation as transdiagnostic mechanisms. A transdiagnostic treatment for stress-related problems targeting emotion and emotion regulation is outlined, and tested. Thereafter, the results of the study are presented and discussed.

The Concept Of Stress Defined

A stringent definition of the stress nomenclature is difficult to make, as its diversity in terms of inclusion and applications are highly context-dependent (Monat & Lazarus, 1991). To specify the different elements of the concept a distinction can be made between the term stressor that refers to the stimulus, which trigger behavioral, emotional, physiological, and cognitive stress responses. Responses that in the long run might cause symptoms of stress (Almén, 2007; Lazarus, 1993). In this study the terms stress-related problems, stress-related symptomatology and stress-related ill health will be used interchangeably when referring to perceived symptoms of stress. Further results of measures of perceived stress and exhaustion will be presented under emotional symptoms (see results).

The Stress Response and Factors Involved in Prolonged Stress

The stress response consists of a number of physiological mechanisms, closely linked to
psychological and behavioral manifestations of symptoms. The *fight or flight response*, coined by Walter B. Cannon (Quick & Spielberger, 1994), plays an important role in the stress physiology, as it is associated with the activation of the sympathetic nervous system, that in acute stress facilitates instant mobilization and redirection of energy within the organism, involving the stress hormones adrenaline and noradrenaline (Tsigos, Kyrou, & Chrousos, 2005). Sympathetic arousal is characterized by a number of physical symptoms: pounding heart, hypertension, a rise in blood pressure, together with behaviors marked by aggressiveness, irritability, or anxiety. This function is highly adaptive as it prompts the individual to take behavioral action upon perceived threat (e.g. Tsigos et al., 2005; Heilig, 2005). If the organism fails to down-regulate the sympathetic arousal, such as in a threatening situation that is, or is perceived as uncontrollable, this might lead to a prolonged stress reaction (Almén, 2007). This reaction in turn, corresponds to the activation of the hypothalamic-pituitary-adrenocortical axis (HPA), a regulatory system that governs the excretion of the stress hormone cortisol, which has significant impact on reproduction, thyroid function, metabolism, gastrointestinal function, and the immune system. If the HPA activation, in turn, becomes chronically dysregulated, its impact on the aforementioned systems becomes maladaptive. This might lead to a number of physiological, psychological and behavioral symptoms, for example passive and avoidant behaviors, chronic stress, anxiety, and depression (Tsigos, et al, 2005; Heilig, 2005). This process can be compared to the *general adaptation syndrome* (GAS) (Selye, 1956; Almén, 2007) composed of the three phases of alarm, adaptation and exhaustion.

In today's society the threats triggering the alarm system is often attributed to external stressors that might be or be perceived somewhat out of our control, such as a strained work situation (Theorell, 2003). This has been suggested in biosocial models of stress like, the demand-control-support model, and the effort-reward imbalance model, both of
which have made major impact on the empirical research on job stress and health (Karasek & Theorell, 1990; Siegrist, 1996). In short these models aims at explaining the mechanisms of work-related stressors and symptomatology by conceptualizing the relationship between stressors at work, decision latitude and task authority, in addition to an imbalance between effort and reward, and how these factors play important roles in health (Rydstedt, Devereux, & Sverke, 2007).

As implied by models of how prolonged stress arises, it does not pertain to a purely biological response to the environment but also entails cognitive factors in that a situation also can be perceived as unmanageable. This has been emphasized in psychological definitions of stress, where it is suggested that stress requires an interaction between person and environment (Semmer, McGrath & Beehr, 2005; Lazarus, 1999; Eriksen & Ursin, 2005). Psychological stress can be defined as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus and Folkman, 1984, p.19). Hence, the mechanisms of stress are dependent of the actual and perceived resources of the individual, relative to the actual and perceived demands upon which the individual operates.

Stress Related Disorders and Problems

Stress-related symptomatology refers to an inclusive collection of psychological, physiological and behavioral problems, described in an abundance of highly overlapping diagnoses. Moreover, the comorbidity among stress disorders, somatoform, mood and anxiety disorders are substantial (Almén, 2007, Schaufeli & Enzmann, 1998; Socialstyrelsen, 2003; McKnight &Glass, 1995). This makes it a challenging task to capture the essence of the phenomena.

In the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, American Psychiatric Association (APA), 2000) diagnoses associated with stress, are found
under anxiety disorders: Acute stress syndrome and post traumatic stress disorder, both associated with psychological trauma and characterized by elevated anxiety and tension. Maladaptive stress reactions constitute a group of problems that include symptoms of depression, anxiety and behavioral disturbances. Another group of syndromes often associated with stress-related symptomatology, is somatoform syndromes characterized by pain, gastrointestinal symptoms, sexual dysfunction and pseudo-neurological symptoms (APA, 2000). In the International Statistical Classification of Diseases and Related Health Problems (ICD-10: Socialstyrelsen/World Health Organization (WHO), 2011), neurotic, stress-related and somatoform disorders are clustered together, including among other diagnoses, neurasthenia and exhaustion syndrome both characterized by physiological and psychological lack of energy (Socialstyrelsen, 2003; Socialstyrelsen/WHO, 2011). The concept of burnout is a well-known and general concept that has gained considerable attention the last decades, although not adopted in the diagnostic manuals. Burnout is characterized by exhaustion, distress, and symptoms that resemble depression and lack of energy, in addition to dysfunctional attitudes to ones work (Maslach & Leiter, 1999; Schaufeli & Enzmann, 1998; Schaufeli, Leiter & Maslach, 2009).

A strict demarcation has to be made regarding the various stress-related disorders, in respect to this study. When stress-related symptomatology is discussed, this does not include traumatic stress. Rather, what is referred to is a collection of perceived cognitive, emotional, behavioral and physiological symptoms related to stressors of daily life. This demarcation is not done on the basis of any theoretical approach, rather in relation to the symptomatology of the participants of this study, which to a varying extent resembles the aforementioned diagnoses.

A General Model of Stress

A general model of stress (see Figure 1) can serve as an overview of stress-related symptoms,
its development and perpetuation (Almén, 2007). Stress-related symptomatology is seen as a function of an imbalance between demands and resources. If the balance between demands and resources is compromised, and if the attempts to solve the stressful situation are unsuccessful, the individual might develop stress-related symptoms. This will happen only if the individual and/or the environment lack flexibility in meeting new and changing demands. At an individual level this refers to inflexible behavioral, cognitive and/or emotional responding patterns. These patterns are found at a higher degree in individuals high on biologically and environmentally influenced dispositions like negative affectivity, a disposition that for example is correlated with burnout (Shaufeli & Enzmann, 1998). Hence, this implicates a general biological and environmental vulnerability towards developing stress-related symptomatology.

Another important detail is that the factors that cause the problem not necessarily are the same that later on perpetuates the problem. There might be other factors, often in terms of cognitions and behaviors on behalf of the individual, exemplified by failures to regulate emotional distress with its somatic effects, or by engaging in harmful coping strategies, such as drinking or using drugs. Often, the symptomatology itself can be perpetuating (Lazarus, 1999; Almén, 2007; Sapolsky, 2007; Schaufeli & Enzmann, 1998). The individual might try to manage the symptoms by avoiding stimuli that elicits discomfort or are perceived as stressful, hence engaging in avoidant behaviors, that might function as a negative reinforcer, powerful in its immediate removal or mitigation of negative consequences (Almén, 2007). Despite its desirable short-term consequences, in prolongation, the avoidant behaviors might be more damaging than the stressor itself, why it is extremely important to pay careful attention to the mechanisms involved in the maintenance of the problems, and to target interventions at these mechanisms.

The general model elucidates that mood and anxiety are intimately related to stress
responses and symptomatology, and that cognitive and emotional mechanisms may play important roles in the development and maintenance of stress-related problems.

Figure 1

Treatment Interventions
Cognitive behavioral therapy in various forms is widely applied for psychopathology in general, and is today the treatment of choice in anxiety and depression disorders (Socialstyrelsen, 2010). Cognitive behavioral interventions are also applicable in stress
rehabilitation, often in combination with either mindfulness-based therapy, or acceptance and commitment therapy (Almén, 2007; Schaufeli & Enzmann, 1998; Grossman, Niemann, Schmidt & Wallach, 2004; Nyklíček & Kuijpers, 2008; Bond & Bunce, 2000). Highly specialized interventions, like the multimodal rehabilitation treatment offered at Stressmottagningen, is intervened when the symptomatology has developed into severe or chronic states, which also prompts interventions in several stages during an extended period (Perski, 2004; Glise & Björkman, 2004). If intervening at earlier stages of the progress, implementing highly specialized treatments might be redundant.

The evaluation of treatment effectiveness and applicability prompts a clear conceptualization of the terminology of stress, which has been outlined, is a major task. By framing stress as first and foremost a problem of emotion regulation, a systematic testing of a treatment approach designed for emotional problems is rendered possible. The inclusion of stress in the emotion regulation paradigm might be highly justified, in respect to the shared symptomatology, in addition to potentially shared mechanisms across anxiety, depression and problems attributed to stress. The possible effect of a unified treatment package would be of interest of both health care professionals and their patients: if suitable in stress-related symptomatology, a unified transdiagnostic treatment would infer a promising intervention targeting a broad spectrum of disorders rendering larger availability and adaptation in primary health care services, as will be outlined below.

The theoretical underpinnings and practical treatment implications of the transdiagnostic approach to emotion regulation mechanisms will be discussed in detail below.

*The Transdiagnostic Approach*

Alongside the rather diverse field of stress research and treatment, another closely related field are moving towards unification, namely the field of psychopathology. This has come about due to an increased awareness and interest in the commonalities among disorders
instead of their differences. Factors contributing to this interest are the difficulties pertaining
to differentiation amongst disorders, evident by extensive comorbidity as well as the
phenomena of diagnostic careers (e.g. first meeting full criteria for one diagnosis and later in
the course of illness for another and so on) (e.g. Brown, Campbell, Lehman, Grisham, &
Mancill, 2001; Kessler, Chiu, Demler, & Walters, 2005; Kring & Sloan, 2010). Problems in
differentiation are partly due to the extensive overlap in diagnostic criteria, especially in the
emotional disorders but also amongst personality disorders and across axes in DSM-IV
(Brown & Barlow, 2009; Clark L. A., 2005). This overlap can, to some extent, be explained
by common shared vulnerability dimensions pertaining to biological and environmentally
based constructs like temperament and personality, such as negative and positive affectivity
(e.g. Brown, Chorpita, & Barlow, 1998; Brown & Barlow, 2009; Clark L. A., 2005).
Common factors underlying anxiety-, mood- and other emotional disorders have also been
supported by research in affective neuroscience and emotion science (e.g. Etkin & Wager,
2007; Mennin, Heimberg, Turk, & Fresco, 2005; Roemer, Salters, Raffa, & Orsillo, 2005;
Campbell-Sills, Barlow, Brown, & Hofmann, 2006a). In the light of these findings, Barlow
(2000) has, in line with Clark and Watsons (1991) tripartite model of anxiety and depression,
suggested a triple vulnerability model as a description of the origins of anxiety and related
emotional disorders. The model will be presented next, since it is also interesting in its
similarities with the proposed models of stress and stress-related ill health.

The Triple Vulnerability Model

The triple vulnerability model proposes a generalized biological vulnerability that can be
translated into the genetic predisposition for experiencing anxiety, hence a sensitive and
reactive sympathetic nervous system. Second, a psychological vulnerability is proposed that
emerges from childhood experiences of unpredictability and distress, that hinders the
development of self-efficacy and effective coping strategies, contributing to a sense of
uncontrollability and unpredictability in life. If these biological and psychological diatheses combine, there is increased risk for the development of emotional disorders in reaction to stressful experiences. The biological and psychological vulnerability combined is as such described as more stable in its character and hence could be translated into the temperament of negative affectivity (Brown & Barlow, 2009). This temperament can be conceptualized as chronic distress involving a sense of uncontrollability of feature threatening events, high vigilance and low self-efficacy concerning one's ability to handle these future events. Chronic distress also involves dysregulation of the hypothalamic-pituitary-adrenocortical axis (Brown & Barlow, 2009; Tsigos, et al., 2005). Hence, this temperament has many shared features, or is interchangeable, with some of the outlined explanations and definitions of stress in the previous section. The triple vulnerability model further proposes an addition of a learned specific focus of the anxiety as a third vulnerability, which could be translated into the various different ways symptomatology might arise (Barlow, 2000; Brown & Barlow, 2009).

Implications For Treatments

The findings that many disorders and problems seem to share both common etiology and maintaining mechanisms raises the intriguing opportunity to develop treatment targeted at these common factors, hence making treatments more flexible and over encompassing. Today there is a host of empirical supported treatments targeting specific diagnoses, leaving the clinician a difficult task in keeping up training as well as making decisions of which treatment is the most suitable (Wilamowska, Thompson-Hollands, Fairholme, Ellard, Farchione, & Barlow, 2010). This is also a problem pertaining to economical interest, since training is costly. For general health care settings, like the primary health care, this can be even more problematic than for more specialized settings, considering the diversity in symptomatology presentation among patients (e.g. anxiety, pain, stress etc.). In Sweden, there is ongoing work towards a “first-line” in the primary care, treating less severe cases of pathology, hence
relieving more specialized care like psychiatry from some of the pressure along with taking a more prevention based stance towards health care (SOU 1999: 137; Myhr, 2007). Clinicians working in primary care are then set with the difficult task of both showing width in knowledge and be able to treat a variety of specific disorders. More unified treatments, targeting shared maintaining mechanisms active in several problems and disorders could be a pertinent option in these settings.

*The Role of Emotion, Emotion Regulation and Avoidance*

Parallel to the search for common factors underlying disorders, research on emotion and emotion regulation has brought about a deeper understanding of the role of emotions in different disorders and problems. Deficits in emotion regulation, like the use of maladaptive regulatory strategies (e.g. different forms of avoidance), has in fact been implicated in all of the emotional disorders as well as in a host of other disorders, illnesses and problems (for a review see Gross, 1998; Kring & Sloan, 2010; Campbell-Sills & Barlow, 2007). For example 75% of disorders described in DSM-IV has some criteria referring to problems of emotion or emotion regulation (Werner & Gross, 2010). Problems of emotion regulation are also evident in subclinical symptoms, social difficulties as well as in physical illnesses and stress (Gross & Thompson, 2007). Taking this into account, emotion and its regulatory processes are pivotal in the search for common factors underlying as well as maintaining psychological oriented problems and problems were psychological factors contribute to the maintenance or development of symptoms.

Hence this implies that treatments taking into account the common factors suggested by a transdiagnostic stance, would be, current research taken in mind, well served by focusing on the transdiagnostic mechanisms outlined by the emotion and emotion regulation research.

*Unified Protocol for Transdiagnostic Treatment of Emotional Disorders*

The Unified Protocol for Transdiagnostic Treatment of Emotional Disorders (Unified
Stress, Emotions and Transdiagnostic Treatment (17)

Protocol; Barlow et al., 2011a) is a transdiagnostic treatment protocol focusing primarily on emotion and maladaptive strategies of regulating emotions. It has shown promising results in the treatment of emotional disorders (Ellard, Fairholme, Boisseau, Farchione, & Barlow, 2010). Although the Unified Protocol was initially developed for addressing symptomatology and common underlying mechanisms pertaining to anxiety and unipolar mood disorders it has also been suggested to be applicable to other disorders and problems where anxiety or strong emotional components and the regulation of emotions is a factor, as with the somatoform disorders (Fairholme et al., 2010; Barlow et al., 2011a). Given that stress-related ill health seem to share many of the common mechanisms underlying symptomatology in the emotional disorders, in addition to the diagnostic linkage between stress and somatoform disorders, interventions targeting emotion regulation mechanisms, like the Unified Protocol, might be justified also in stress-related problems.

The Unified Protocol has been developed out of decades of research concerning effective cognitive behavioral therapy treatments for anxiety and mood disorders. Key principles from empirically supported cognitive behavioral therapy treatments have been extracted together with an inclusion of the advances in emotion regulation research to compose the Unified Protocol (Ellard et al., 2010). Emphasis is placed on the adaptive functionality perspective of emotion (Levenson, 1994), and the treatment attempts to increase the tolerance of emotions as well as identify and counter maladaptive efforts to regulate emotions. The Unified Protocol is a modular treatment comprised of a total of eight different modules, with five of these considered as the core treatment modules (see Table 1).
The eight modules in the Unified Protocol. The modules written in italics are the five core modules.

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The treatment maps on to the process model of emotion regulation suggested by Gross (1998) regarding treatment targets and interventions (Fairholme et al., 2010). At each of the five points in the process of emotion regulation (Gross, 1998), Unified Protocol outlines a set of specific strategies to regulate emotions often used in maladaptive ways across disorders were problems of emotion and emotion regulation is pertinent together with a set of specific treatment techniques to target them (Figure 2). The interconnectivity between the emotion regulation process, and the techniques used in Unified Protocol will be outlined below.
The process model of emotion regulation (Gross, 1998) together with specific maladaptive strategies targeted by the Unified Protocol at each stage. At the lower end of the model the specific interventions for targeted strategies are listed. Adapted from Fairholme et al. (2010).

**Figure 2**

*Situation selection and emotion exposure.* Strategies used here can be roughly divided into situational avoidance or approach. If avoidance is used chronically and inflexible it can become maladaptive (e.g. when a person who gets anxious in social situations starts to persistently avoid parties, and other social gatherings). Maladaptive situation selection is targeted in the Unified Protocol by the use of situational based emotion exposure. Exposure has substantial support in the research literature regarding the treatment of emotional disorders (Fairholme et al., 2010; e.g. Feske & Chambless, 1995; Wolitzky-Taylor, Horowitz, Powers, & Telch, 2008). Emotion exposure differs a bit from traditional situational exposure by focusing the emotional experience rather than situational triggers (Fairholme et al., 2010).

*Situation modification and preventing emotional avoidance.* Examples of maladaptive situation modification strategies targeted in the Unified Protocol are the use of different safety behaviors or so called subtle behavior avoidance (e.g. when you enter a social
situation despite intense fear but abstain from eye contact). The use of these strategies in inflexible ways may result in poorer treatment outcomes like reduced habituation, increased negative affect and poor response to treatment, since the person attribute the successful exposure to the safety behavior instead of to their own ability to handle a distressing situation (Fairholme et al., 2010; Clark, 2001). The prevention of emotional avoidance is pivotal in emotion exposure; the Unified Protocol contains a module directed at identifying and preventing avoidance strategies pertaining to situation modification.

Attentional deployment and present-focused nonjudgmental awareness. Examples of maladaptive strategies of attentional deployment targeted in the Unified Protocol are thought suppression, distraction, worry and rumination. These strategies are suggested to be maintained and reinforced by both offering a seemingly active way for individuals to address situations that are in fact uncontrollable and by offering a method to distract from the emotion associated with the situation (Fairholme, 2010; Borkovec & Hu, 1990). Although they are reinforced by some initial relief from the distressing emotion they have been repeatedly connected to increase the very experience being distracted from along with a host of other negative effects like preventing habituation, hindering more active and effective coping efforts and increased stress (e.g. Wegner, Schneider, Carter, & White, 1987; Roemer & Borkovec, 1994; Hunt, 1998; Campbell-Sills & Barlow, 2007; Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Lyubomirsky & Tkach, 2004). Attempts to modify emotions using attentional employment is suggested to be based on that the emotional experience is perceived as threatening and the belief that the individual lacks the resources to successfully regulate this emotion. The Unified Protocol intervenes against these beliefs in a module grounded in mindfulness and acceptance based emotion regulation strategies that have been suggested to constitute an adaptive alternative to emotional and expressive suppression (Fairholme et al., 2010). This module is designed to promote present focused nonjudgmental awareness through
continued practice of mindfulness and acceptance based exercises.

*Cognitive change and antecedent cognitive reappraisal.* Changing how one thinks about a situation, its meaning or one's ability to manage is often referred to as reappraisal (Werner & Gross, 2010). Reappraisal has been shown to be a highly adaptive regulatory strategy when used to develop more realistic and evidence-based appraisals about a situation that elicits strong emotions (Campbell-Sills & Barlow, 2007). Reappraisal can also be used in maladaptive ways, as with rationalization where individuals try to alter the emotional impact of a situation by telling themselves something about the situation whether it is true or not, such as when telling yourself that something you failed at really was not important when in fact it was (Campbell-Sills & Barlow, 2007). Hence Fairholme et al (2010) proposes that “…reappraisal is adaptive to the extent that it accurately represents the persons' actual value system.” (p. 298). Since cognitive reappraisal has been underscored as a highly adaptive regulation strategy, the Unified Protocol includes a module concerning appraisal and reappraisal to promote adaptive cognitive reappraisal. This includes how appraisals affect emotions and vice versa, common thinking traps (e.g. catastrophizing, probability overestimation) and practicing flexibility in appraising situations and experiences.

*Response modulation and facilitating incompatible action tendencies.* It is common for individuals suffering from emotional disorders to try to directly influence experiential, physiological or behavioral aspects of their emotional experience (Fairholme et al., 2010). This can be done by for example expressive suppression (e.g. smiling when feeling sad) or emotional suppression, which has the function of inhibiting the emotional experience per se and not just the expression of it (Campbell-Sills, Barlow, Brown, & Hofmann, 2006b). Suppression and avoidance strategies used to diminish or stop the ongoing emotional response have been shown to instead increase the distressing experience as well as contributing to a host of other negative effects like increases in sympathetic nervous system responding,
deteriorated memory and maintenance of anxiety and depression (Gross & Levenson, 1997; Campbell-Sills et al., 2006a; Hayes & Wilson, 1994; Kashdan, Elhai, & Frueh, 2006).

Emotion-driven behavior (EDB), a term used in the unified protocol refers to specific behaviors that are driven by an emotional experience and can be considered as a form of response modulation given their function of altering the ongoing emotional response (Fairholme et al., 2010). Maladaptive emotion driven behaviors are presumed to be negatively reinforced, much like other forms of avoidance, and works as a maintaining mechanism by hindering habituation to the response being modulated (Campbell-Sills & Barlow, 2007). The Unified Protocol targets maladaptive response modulation by the EDB module. This module contains information and functional assessment of emotion driven behaviors together with practice in countering identified maladaptive emotion driven behaviors with acting opposite to ones emotion and to former emotion driven behaviors. This allows for habituation to occur as well as increase the flexibility in regulatory strategies (Fairholme et al., 2010).

The Current Study

The transdiagnostic approach and its treatment concepts constitute the result from years of extensive research in cognitive, behavioral and emotion theory and clinical practice, whereas Unified Protocol for emotional disorders has shown promising results in clinical trials (Ellard et al., 2010). Simultaneously, the field of stress research would most likely benefit from acknowledging the theoretical similarities with the concepts of emotions and the transdiagnostic approach to them. In respect to the shared symptomatology of emotional and stress-related disorders, the authors propose that the next step would be to consider shared mechanisms. Finding viable and effective interventions targeting stress-related symptoms is of relevance to many people; hence progress in the field would possibly benefit a broad public, considering the propagation of stress-related ill health (Socialstyrelsen, 2009). Proving the efficacy and sufficiency of the Unified Protocol might be in favor not only to the patient,
but also to the caregiver, that can be offered a versatile tool suitable in primary health care settings, that can be implemented before symptoms have developed into chronic states, regardless the idiosyncratic manifestation of problems. The current study therefore contributes to both theoretical and empirical research trajectories.

Aim and Hypotheses

The aim of this study is to test the feasibility of treating patients suffering from stress-related ill health with a transdiagnostic treatment protocol aimed at increasing acceptance and flexibility of emotions and emotional responding. To test the feasibility this study outlines three questions:

1. Will treatment using the unified protocol reduce perceived stress on measurements designed to measure stress-related ill health?
2. Will treatment lead to self-reported increased functioning in daily life?
3. Do patients find this treatment satisfactory?

Another aim of this study is to validate whether it is adequate to conceptualize stress-related ill health along the dimensions of emotion regulation and from a transdiagnostic perspective.

The following hypotheses are investigated:

1. Ratings of perceived stress will co-vary with anxiety and/or depression ratings.
2. Participants will show elevated scores on instruments measuring the use of maladaptive emotion regulation strategies and transdiagnostic processes, and decreases in emotional symptomatology will be related to decreases in transdiagnostic processes such as worry and avoidance.

Method

Design

The present study used a single subject multiple baseline design across subjects. The single subject designs have been suggested to be very useful in investigating the feasibility in newly
developed psychological treatments (Barlow et al., 2009; e.g. Dallery & Glenn, 2005; Choate, Pincus, Eyberg & Barlow, 2005). It can serve as a first step in a research process, giving an implication to whether it would be relevant to proceed with studies consisting of a greater number of participants using a group design (Moras, Telfer, & Barlow, 1993). For an in-depth discussion of the principles of single subject designs, see the works by for example Barlow et al. (2009), Kazdin (2010) and Kazdin (2011).

Participants

Participants were recruited from a pool of individuals seeking treatment for stress-related ill health at Landstingshälsan, a health care center for people employed at Örebro läns landsting. All individuals interested in participation were screened for heightened stress and incipient exhaustion using The Lund University Checklist of Incipient Exhaustion (LUCIE; Karlsson & Österberg, 2010) and for anxiety and depression using the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). Individuals reaching a score of >0.385 on the Stress Warning Scale on LUCIE and of 8 or above on either the anxiety or the depression scale on the HADS (see measures) were offered to participate. Patients that reported being on sick leave for more than four months at the onset of treatment were excluded. Other exclusion criteria were severe psychiatric symptomatology, such as psychosis, substance abuse, anorexia or bulimia nervosa, or suicidal ideation.

A total of nine individuals were initially screened. Seven of these met the inclusion criteria and were offered to participate. One individual turned down the offer due to personal reasons. Six participants consented to treatment. These are presented in Table 2.
### Table 2

**Presentation of participants**

<table>
<thead>
<tr>
<th>Participants</th>
<th>Biographical data</th>
<th>Participants' own description of symptomatology</th>
<th>Days of sick leave due to stress-related symptoms during the last 12 months (at pre-treatment assessment)</th>
<th>Medication of relevance</th>
<th>Significant Life events during baseline/treatment</th>
<th>Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Woman, 41 years old, employed as an interpreter. Married, three children.</td>
<td>Chronic neck pain due to a whiplash, sleepiness and fatigue</td>
<td>10 Days of sick leave started two weeks prior to baseline initiation, continuing throughout the treatment phase</td>
<td>Cymbalta, initiated two weeks prior to baseline initiation</td>
<td>None</td>
<td>13/9-27/9 (15 days)</td>
</tr>
<tr>
<td>2</td>
<td>Woman, 29 years old, employed as a nurse. Married, one child.</td>
<td>Stress-related problems at work, depressed mood since pregnancy two years ago. Low self-esteem and self-efficacy since childhood</td>
<td>0 Days of sick leave</td>
<td>None</td>
<td>None</td>
<td>14/9-2/10 (19 days)</td>
</tr>
<tr>
<td>3</td>
<td>Woman, 26 years old, employed as a nurse. In a relationship, living in separate homes. No children.</td>
<td>Stress, anxiety. Issues with achievement based self-worth since adolescence. Relationship difficulties</td>
<td>0 Days of sick leave</td>
<td>None</td>
<td>Relationship problems and final breakup after six weeks of treatment</td>
<td>14/9-9/10 (26 days)</td>
</tr>
<tr>
<td>4</td>
<td>Woman, 52 years old, employed as an enrolled nurse. Married, one child.</td>
<td>Diffuse pain and depressive symptomatology, strongly connected to a strained psychosocial situation at work</td>
<td>40. Additionally full time sick leave initiated five days prior to baseline initiation, continuing until treatment week 2, followed by 75% sick leave continuing throughout the treatment phase</td>
<td>Citalopram, initiated five days prior to baseline initiation</td>
<td>None</td>
<td>20/9-17/10 (27 days)</td>
</tr>
<tr>
<td>5</td>
<td>Woman, 51 years old. Employed as a general practitioner. Married, one child with special needs.</td>
<td>Immunocompromised due to high demands at work. Symptoms like physical symptoms, fatigue and depression</td>
<td>0</td>
<td>None</td>
<td>High degree of psychosocial stressors</td>
<td>29/9-13/10 (15 days)</td>
</tr>
<tr>
<td>6</td>
<td>Woman, 47 years old, employed as an enrolled nurse. Single, no children.</td>
<td>Stress-related symptoms, pain, anxiety, disordered eating partially due to a heavy workload in combination with few breaks</td>
<td>90-120 Additional 25% sick leave initiated during treatment week 6 continuing throughout the treatment phase</td>
<td>None</td>
<td>None</td>
<td>30/9-13/10 (14 days)</td>
</tr>
</tbody>
</table>
Material
The material used in the present study was a treatment workbook (available upon request). It was a version of the original English version of the Unified Protocol (Barlow et al., 2011b), translated into Swedish by the authors. A number of adaptations were made with the aim to increase the applicability of the material to the current settings: the text was shortened, a few sections were excluded, and some examples were replaced by examples better suited for the participants of the current study. All sessions were recorded using a digital voice recorder. Participants also received a cd containing mindfulness exercises (Flink & Klingstedt). The Unified Protocol treatment manual (Barlow et al., 2011a) was used by the therapists. An e-mail account was also opened exclusively for correspondence concerning the study.

Measures
The purpose of administering the following instruments was to generate an inclusive description of the symptomatology and to facilitate the detection of pre/post measure differences in symptomatology levels. Further, to detect subtle levels and variations of transdiagnostic constructs, a variety of self-report measures targeting these were also used. Some of the administered instruments were not further used or analyzed in this study and have as such been left out. A description of all instruments relevant to this manuscript is presented below.

Lund University Checklist for Incipient Exhaustion (LUCIE; Karlsson & Österberg, 2010, in Arbets- och miljömedicin, 2010-2011). This self-report measure was developed to meet the needs for detecting early signs of stress-related symptoms. Its 28 items cover areas of sleep and recovery, demarcation between work and leisure, affinity and social support at work, control at work, private life and leisure activities, and health concerns. Answers are given on a 4-point Likert Scale, ranging from 1 = Not at all to 4 = Much. In the current study, The Stress Warning Scale (SVS), which aims to differentiate between no symptoms of stress,
and brief signs of prolonged stress symptomatology, with the recommended cut-off scores of >.385 (total scores ranging from 0-1), were used (Arbets- och miljömedicin, 2010-2011). The validity of the SVS is satisfactory. As LUCIE needs further longitudinal evaluation, the data obtained in the present study were made available for the research team at Arbets- och Miljömedicin, Lund. The instrument has shown high internal consistency in two cohorts, and in one group diagnosed with Exhaustion Syndrome (UMS) (Cronbach’s α: 0.94, and 0.84, respectively) (Arbets- och miljömedicin, 2010-2011).

Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). Depression and anxiety were screened with a Swedish version of HADS (Sullivan, et al., 1993, in HRQL-Gruppen, 2000), which has been found to be a useful clinical indicator of depression and anxiety, both internationally and in one Swedish study (Lisspers, Nygren & Söderman, 1997). The instrument consists of two subscales: depression and anxiety, with seven items and a total score of 21, on each scale. In the present study, cut off scores of 8 or above on at least one of the subscales, were used in accordance with indications that this cut off offers an optimal balance between sensitivity and specificity (Bjelland, Dahl, Haug, & Neckelmann, 2002). The internal consistency varies between Cronbachs α 0.89-0.93 (Carlbring, 2005). Further, to detect changes in levels between pre- and post assessment, following criteria were used: scores of <8= subclinical levels; 8-10= borderline; 11-14= anxiety or depression of clinical relevance; >15= severe anxiety or depression (Carlbring, 2005).

The Work and Social Adjustment Scale (WSAS; Mundt, Marks, Shear, & Greist, 2002 The WSAS). A Swedish translation of the WSAS was used to measure interference in work and social life. The instrument consists of five items covering following areas: reduced ability at work, home management, social and private leisure activities, and close relationships. Answers are given on a nine-point Likert scale, ranging from 0 = Not at all to 8 = Very.
Severely, with a total score of 40. The WSAS has shown to be a valid and reliable measure as tested across disorders (Cella, Sharpe, & Chalder, 2011; Mataix-Cols, et al., 2005), where symptom severity is associated with function impairment (Mundt et al., 2002). Internal consistency of the WSAS ranging from Cronbach’s α 0.70-0.94 (Mundt et al., 2002). Further, to detect changes in levels between pre- and post assessment, following criteria were used: scores of <9 = Subclinical levels; 10-20 = Significant functional impairment, but less severe clinical symptomatology; >20 = Moderately severe or worse psychopathology (Mundt, et al., 2002).

Montgomery-Åsberg Depression Rating Scale (MADRS-S; Svanborg & Åsberg, 1994, in Carlbring, 2005). For further investigation of depressive symptoms, the MADRS-S was used. The instrument is designed to detect levels of depression, and exists in two versions, one used by clinicians, and one self-rating version (MADRS-S). In the current study, the self-rating version was used. The instrument consists of nine items covering the depressive symptomatology. Answers are given on a Likert scale ranging from 0 (no symptoms) to 6 (severe symptoms), with a total score of 54. The MADRS-S has shown good reliability and moderate to high correlations between the clinician administered version and the self-rating version (r. 0.80-0.94) (Svanborg & Åsberg, 1994, in Carlbring, 2005). Cronbach’s α has been calculated to 0.84 (Fantino & Moore, 2009). Further, to detect changes in levels between pre- and post assessment, following criteria were used: scores of <12 = Subclinical levels; 13-19 = mild depression; >20 = Moderate/severe depression (Svanborg, 1999, in Svanborg & Ekselius, 2003).

The Positive and Negative Affect Schedule (Swedish Short PANAS; Hillerås, Jorm, Herlitz, & Winblad, 1998, in Mackinnon, Jorm, Christensen, Korten, Jacomb, et al., 1999). For detection of affectivity, the 10-item Swedish version of Short PANAS was used, which is an abbreviated version of the original 20 item PANAS (Watson, Clark, & Tellegen, 1988).
Negative affect has been identified in symptoms of both anxiety and depression, and positive affect has been found to negatively relate to depression as well as to some forms of anxiety (Watson, Clark, & Carey, 1988; Brown et al., 1998). The instrument consists of two five-item subscales, measuring positive affect and negative affect, respectively. Answers given on a five-point Likert scale, ranging from 1 = never to 5 = always, with a total subscale score of 25. The psychometric properties of the instrument have shown to be acceptable. Cronbach’s α has been calculated to 0.78 for positive affect and 0.87 for negative affect for the whole sample in one study (MacKinnon, et al., 1999). In the same study, data from a large community sample were obtained, of whom a female subgroup (n=1389) had mean scores of 17.20 (3.34) on positive affect, and 9.60 (4.07) on negative affect.

The Safety Behaviors and Catastrophizing Scale (SBCS; MacDonald, Linton, Jansson-Fröjmark, 2008). SBCS was originally designed for detecting the safety behaviors and catastrophizing of patients with insomnia and pain symptomatology. The ten items used in the current study consisted of the subscales Safety behaviors- cognitive orientation and Catastrophizing (see Appendix) because of their perceived relevance in assessing transdiagnostic constructs like avoidance and catastrophizing. The internal consistency for the two subscales has been calculated to Cronbach’s α 0.83 (safety behaviors of cognitive orientation), and 0.84 (catastrophizing) (MacDonald, et al., 2008). Mean scores and standard deviations in a group of patients suffering from stress symptomatology (n=116) were 16.8 (5.1) for catastrophizing, and 11.0 (3.3) for cognitive safety behaviors (Boersma, MacDonald, and Linton, manuscript).

The Cognitive Behavioral Avoidance Scale (CBAS; Ottenbreit & Dobson, 2004). The CBAS is designed to detect variations of cognitive and behavioral avoidance. It consists of 31 items, where respondents provide ratings on a five-point Likert scale ranging from 1 = Not at all true for me to 5 = Extremely true for me, with a total score of 155. Scores are significantly
related to depression and anxiety (Ottenbreit & Dobson, 2004; Moulds, Kandris, Starr, & Wong, 2007). The instrument has shown good psychometric properties: coefficient alpha for the total scale has been found to be 0.91 (Ottenbreit & Dobson, 2004). Moulds, et al. (2007) tested CBAS in a non-clinical university undergraduate sample (n=104), where the majority of the participants were females (n=74). Mean scores and standard deviations of the female sample were as follows: Cognitive social avoidance: 12.99 (4.73); Cognitive nonsocial avoidance: 18.27 (6.07); Behavior social avoidance: 14.73 (6.31); Behavior nonsocial avoidance: 13.09 (4.05). A Swedish version provided by the authors of the original version (K Dobson, personal correspondence, August 31, 2011), was used in the current study.

Perseverative Thinking Questionnaire (PTQ; Ehring, Zetsche, Weidacker, Wahl, Schönfeldt, & Ehlerse, 2011). The PTQ is designed to measure repetitive negative thinking. Elevated levels of worry and/or rumination have been found in most Axis I disorders of the DSM-IV-TR (Ehring & Watkins, 2008, in Ehring et al., 2011). The instrument consists of 15 items. Answers are given on a five-point Likert scale ranging from 0= Never, to 4= Almost always, with a total score of 60. The instrument shows excellent internal consistency for the total scale (Cronbachs α: 0.95) (Ehring, et al., 2011). Mean scores and standard deviations were found to vary across disorders and between clinical and nonclinical populations: 37.56 (9.99) in a group of patients suffering from depression; 35.93(13.60) in anxiety disorders, and 28.14 (13.23) in a nonclinical sample (Ehring, et al., 2011).

The Diary of Emotions and Stress. To be able to detect variations in symptomatology on a daily basis, a diary was constructed. The diary consisted of 11 items (see Appendix), where the last two items were an adaptation of the Affect Grid (Russell, Weiss, & Mendelsohn, 1989). Due to limitations in the design of the web-administered format, the grid was broken down into two items, measured on a nine-point Likert scale. The remaining items were chosen because of their perceived possibility to measure change in the constructs
supposedly targeted by treatment and were all measured on an 11-point Likert scale. The first item concerned perceived stress during the day. Of the nine questions one item was inspired from LUCIE (number four), two from SBCS (number five and eight), one from PTQ (number six). Item number two was included because of the possibility of still experiencing symptoms but being able to cope better, which is in line with the treatment goals (Barlow et al., 2011a). Item number three was included to assess a behavioral aspect of item number two. Item number seven was included to assess amount of worrying during the day and item number nine was included to measure amount of perfectionistic behavior, both of which have been outlined as transdiagnostic constructs and that have been suggested relevant also to stress-related symptomatology (e.g. Egan, Wade, & Shafran, 2011; Brosschot, Gerin, & Thayer, 2006). The psychometric properties of the Diary of Emotions and Stress have not been validated. Due to space limitations, four items were selected and presented in this thesis, namely item 1, 3, 5 and 7.

Perceived Stress Scale-14 (PSS-14; Cohen, Kamarck, & Mermelstein, 1983). The PSS-14 is a 14-item instrument designed for detecting to which degree an individual perceives different life situations as stressful (Cohen, et al., 1983). It consists of two factors, one reflecting adaptation symptoms, and one reflecting coping ability (Hewitt, Flett, & Mosher, 1992). Answers are given on a five-point Likert scale ranging from 0= Never, to 4= Very often, with a total score of 56. The psychometric properties of the instrument are satisfactory (Hewitt, et al., 1992). The Coefficient α reliability ranged from 0.84 to 0.86 in the original trial (Cohen et al., 1983).

Overall Anxiety Severity and Impairment Scale (OASIS; Norman, Hami-Cissell, Means-Christensen, & Stein, 2006, in Campbell-Sills, Norman, Craske, Sullivan, Lang, Chavira, et al., 2009). The OASIS is a five-item instrument designed to measure severity and impairment following any anxiety disorder or cluster of disorders (Campbell-Sills et al.,
Stress, Emotions and Transdiagnostic Treatment (32)

2009). Answers are given on a five-point scale ranging from 0 to 4, with a total score of 20. The OASIS has shown good psychometric properties in both clinical and non-clinical populations. Cronbach’s α for the instrument is 0.89 (Campbell-Sills et al., 2009; Norman, Campbell-Sills, Hitchcock, Sullivan, Rochlin, Wilkins et al. 2011).

*Overall Depression Severity and Impairment Scale (ODSIS; Barlow et al., 2011a).*

To cover depressive symptomatology, Barlow et al. (2011a) adopted the structure from the OASIS, and replaced *anxiety* with *depression*. This adaptation is neither tested nor validated, but is, just like the OASIS, used as a weekly measure in the treatment package, as suggested by Barlow et al. (2011a).

*Evaluation form.* An evaluation form was created by the authors exclusively for the current study. It consists of a total of 25 questions concerning relevance, quality and quantity of treatment modules, material, sessions, and connection with therapists (see Appendix).

*Procedure*

Upon recruitment, nurses and physicians at Landstingshälsan, Örebro läns landsting, were informed about the present study and asked to inform patients seeking treatment for stress-related ill health verbally and hand out a short written information (see Appendix). If the patient reported an interest in participating he or she was given an appointment with one of the two authors for screening and assessment. The screening and following assessment where done by the authors of the study at the facilities of Landstingshälsan.

During the screening procedure individuals were required to fill in a short form with information about reasons for seeking treatment, questions concerning the exclusion criteria (as outlined above) and biographical data. If the patient passed the screening and did not fulfill any of the exclusion criteria they were offered to continue with a more exhaustive assessment. Upon completion of the assessment an offer was made to participate in the study and more thorough information about the study was given (see Appendix). The patients were
asked to accept or decline participation by sending an e-mail to the authors within two working days. One participant (6) were asked to decide right after assessment due to the fact that she were recruited late in the study. Upon consenting to treatment participants were given an appointment for baseline introduction.

At this appointment the participant were informed that their baseline could vary between two to four weeks (except for participant 6, due to late inclusion), and that they would be informed about when to start treatment about one to two weeks in advance. They were further introduced to the four baseline measures: The Emotion and Stress diary (to be filled in daily), ODSIS, OASIS and PSS-14 and completed their first ODSIS, OASIS and PSS-14 in session. The PSS-14, OASIS, and ODSIS were administered on a weekly basis during baseline. Once the intervention was initiated, the measures were based on sessions instead of weeks. Participants were given the choice of either filling in a paper version of the diary or an electronic version that would be sent to their e-mail on a daily basis. One participant (6) chose the paper version. All participants received a folder containing enough baseline measures for the baseline phase and instructions on when to fill in the weekly forms. Participants were also given a code, to assure protection of personal information. They were further told that they should feel free to contact their therapist by e-mail with any questions that may arise before and during treatment, and that their therapist would send out reminders of filling in the required forms.

At the beginning of treatment each participant was given a copy of the treatment workbook. The intervention was a short version of the Unified Protocol (Barlow et al., 2011a), where all treatment modules were included although the time used on every module was shortened due to time constricitions. The sessions were provided according to Table 3. To make use of the contact formed during assessment the participants received the same therapist in treatment as during screening and assessment. Each therapist received three patients. The
treatment sessions where held at the facilities of Landstinghälssan. The intervention consisted of a total of eight weekly sessions of about 60 minutes (45-90 min). Each session started with collecting forms from the previous week and handing out new ones. Then the homework from previous week was assessed and problems in completing the homework where discussed. After this the topic of the week was introduced and examples where given. The skills of the week were practiced. At the end of the session participants received homework exercises to complete in the following week. In between sessions participants were encouraged to review the topics presented in session and practicing the skills taught in session.

Table 3

<table>
<thead>
<tr>
<th>Session</th>
<th>Content</th>
</tr>
</thead>
</table>
| 1       | Introduction to the treatment  
          | Goal formulation  
          | Introduction to functional analysis  
          | Brief information about motivation |
| 2       | Psychoeducation about emotions and emotion driven behaviors  
          | Presentation of the ARC (Antecedent, Response, Consequence) |
| 3       | Emotion awareness training |
| 4       | Cognitive appraisal and reappraisal |
| 5       | Emotion avoidance  
          | Emotion driven behaviors  
          | Rationale for in vivo exposure  
          | Creating a exposure hierarchy |
| 6       | Awareness and tolerance of physical sensations  
          | Exposure |
| 7       | Exposure |
| 8       | Relapse prevention |

In session number three the CD with mindfulness exercises was used and handed out, and in session number four and five extra examples concerning that weeks homework were provided. Following the last session an additional hour was set aside for post measurement and evaluation.

**Therapists and Treatment Integrity**

Therapists were the two authors, both doing their last semester in their studies to become clinical psychologists. Both therapists received guidance during treatment from a certified
psychologist and psychotherapist at Landstingshälsan, with extensive experience in working with cognitive behavioral therapy.

Treatment integrity was addressed by the therapists being obliged to adhere to the Unified Protocol treatment manual (Barlow et al., 2011a). The UP manual is constructed to allow for a certain degree of flexibility. It utilizes a modular format in which all modules should be addressed in treatment but the time spent on every module is a function of the individual presentation of symptoms (McHugh, Murray, & Barlow, 2009). No deviations from or supplements to the manual were allowed. Given that each session had a considerable amount of information, examples and practicing skills, and due to the fact that there was no opportunity to vary the sessions spent on the modules, as recommended in the original manual, sessions sometimes varied in timespan depending on idiosyncratic presentation (45-90 min).

**Analytical Methods**

*Visual inspection.* Visual inspection is commonly used as a means to analyze the data gathered within clinical research using a single subject design (Kazdin, 2010). The continuous data collected during baseline and treatment phase in the present study was presented in graphical form that could be visually inspected. Three different graphs were used to present data from the Stress and Emotion diary and from the weekly measures (PSS-14, ODSIS & OASIS).

In visual inspection four main criteria are used: changes in means, levels, trend and latency of change. When examining the changes of means this is done to see if the dependent variable shows a change in the mean rate from the different phases, and if so, if this change is in the desired direction. Concerning changes in level this pertains to if there is a change in level in the graph from the last day of the baseline phase to the first day of the intervention phase which, depending on direction and size, could be indicative of the effect of the
intervention. A swift and extensive shift in level would facilitate interpretation of the data. The trend, or slope in the data is further inspected to see if there is a change in trend from phase to phase. A change in trend could also be indicative of a treatment effect. Finally the latency, or the time between when the intervention is applied and changes in the dependent variable occurs is also relevant in visual inspection. A smaller latency indicates a clear effect of the intervention.

*Pre- and post measurements and procentual change.* To further analyze treatment effect in emotional symptoms, functional impairment and transdiagnostic psychological processes, scores on pre- and post measurements of these symptoms and constructs were used to compute procentual change from pre- to post- treatment. Missing data were accounted for by replacing missing items with the mean score of the total obtained score for the rest of the scale.

*Clinical significant change.* To detect clinical significant changes in symptomatology levels on pre- and post measurements, data were compared to existing norms, as stated by the authors of original instruments, or by comparing with data from other clinical trials or studies (for further details, see measures).

*Ethical considerations*

The present study was applied in accordance with the ethical principles outlined for psychological practice and research in the Nordic countries (Övreeide, 2003). All participants were fully informed about the research project both verbally and in written format and informed consent was obtained. Participants were informed about confidentiality, the voluntary basis and the right to discontinue without further notice. All data was de-identified and coded. Information given by participants will only be used in the present study and not be spread to other instances (with the exception of de-identified data pertaining to LUCIE as outlined above). Biographical data was kept locked up at the research center CHAMP at
The Unified Protocol contains many of the active components in treatment as usual for stress-related illness and emotional disorders (e.g. mindfulness, in vivo exposure) (e.g. Almén, 2007), and as such was not considered to entail risk for detrimental effects.

The choice of design was partially made due to the fact that it does not depend on reversal phases to make inferences about the effect of treatment, which would have been problematic in this study due to both carryover effects but also ethical considerations.

Participants who did not meet the inclusion criteria or who turned down the offer to participate were referred to their initial contact at Landstingshälsan for other treatment options.

Results


In Figure 3 participants’ daily measures of perceived stress and functional impairment, as measured with question 1 and 3 in the diary of emotion and stress respectively, are presented. In Figure 4 the participants’ weekly measures of anxiety, depression and perceived stress are presented. Comparing baseline to treatment phase, in summary, the following can be perceived for the six participants.

Participant 1. Participant 1 shows a pattern for the daily measures of stress and functional impairment, with high day-to-day variability in reported symptoms in both phases. There is a decrease in mean within phase symptom level from baseline to treatment phase for both stress and hindrance. On the weekly measure of stress participant 1 shows a stable pattern through baseline and the first weeks of treatment, starting week 6 of treatment, a slight descending slope emerges. Furthermore there is also a slight descending slope visible but with very low levels of symptoms reported through both baseline and treatment phase for the weekly measures of anxiety and depression.
Daily measures of stress and hindrance in daily life for all participants. The vertical line represents phase change from baseline to treatment.

**Participant 2.** Participant 2 shows a decrease in mean within phase symptom level from baseline to treatment phase for both stress and hindrance. On the weekly perceived stress measure participant 2 shows a stable pattern through baseline and the first weeks of treatment. From session 5 a descending slope in reported stress can be observed, continuing to the end of treatment. A slight descending slope is visible concurrently, on the weekly measures of anxiety and depression. However, general levels of reported weekly anxiety and depression are low.
Stress, Emotions and Transdiagnostic Treatment (39)

Figure 4

Weekly measures of perceived stress, depression and anxiety for all participants. The vertical line represents phase change from baseline to treatment.

Participant 3. Participant 3 shows a pattern for the daily measures of stress and functional impairment, with high day-to-day variability in reported symptoms in both phases. There is an increase in mean within phase symptom level from baseline to treatment phase for hindrance, together with an ascending slope for both stress and hindrance symptom level, observed following session 4. Data for the weekly measures of stress, anxiety and depression are highly stable through baseline and the first weeks of treatment. After session 4-5 there is a clear ascending slope in data for stress as well as for depression and anxiety. General levels of reported weekly anxiety and depression are low.

Participant 4. Participant 4 shows a pattern for the daily measures of stress and functional impairment, with little day-to-day variability in reported symptoms in both phases.
General levels of daily reported stress and hindrance are low. Participant 4 shows a decrease in mean within phase symptom level from baseline to treatment phase for both stress and hindrance. Weekly reported symptoms of perceived stress are stable both through baseline and treatment phase. A slight descending slope in reported anxiety and depression is observable after session 4.

Participant 5. Participant 5 shows a pattern for the daily measures of stress and functional impairment, with very high day-to-day variability in reported symptoms in both phases. There is a decrease in mean within phase symptom level from baseline to treatment phase for both stress and hindrance. There are missing data for the last nine days of treatment. Weekly reported symptoms of perceived stress fluctuate but are overall stable through both phases. A fluctuating pattern is visible concurrently for reported weekly symptoms of depression with no detectable changes. General levels of reported anxiety are very low but an ascending slope is detectible from baseline trough treatment.

Participant 6. Participant 6 shows a pattern for the daily measures of stress and functional impairment, with day-to-day variability in reported symptoms in baseline phase, which stabilize at the beginning of treatment phase. There is a decrease in mean within phase symptom level from baseline to treatment phase for both stress and hindrance. On the weekly perceived stress measure participant 6 shows a variable pattern at baseline and for the most part of treatment. Weekly measures of anxiety shows a similar pattern concurrently, but to a less degree, whilst weekly measures of depression remains stable through both phases. General levels of reported anxiety and depression are low.

Visual Inspection of Changes in Transdiagnostic Processes

In Figure 5 daily measures of the transdiagnostic processes worry and cognitive and/or emotional avoidance as measured by question 7 and 5 respectively in the diary of emotions and stress, are presented. Comparing baseline to treatment phase, in summary, the following
can be perceived for the 6 participants.

**Participant 1.** Participant one shows a pattern for daily measures of worry and cognitive/emotional avoidance, with high day-to-day variability in reported symptoms for both phases. There is a decrease in mean within phase symptom level from baseline to treatment phase for both worry and cognitive/emotional avoidance.

**Participant 2.** Participant 2 shows a decrease in mean within phase symptom level from baseline to treatment phase for both worry and cognitive/emotional avoidance. General levels of reported worry are low.

![Figure 5](image)

*Figure 5*
Daily measures of reported Worry and Cognitive and/or Emotional Avoidance for all participants. The vertical line represents phase change from baseline to treatment.

**Participant 3.** Participant 3 shows a pattern for the daily measures of worry and cognitive/emotional avoidance, with high day-to-day variability in reported symptoms in both
phases. There is an increase in mean within phase symptom level from baseline to treatment phase for worry, with an increase in worry level observed following session 4. A slight ascending slope is visible concurrently for cognitive/emotional avoidance.

Participant 4. Participant 4 shows a decrease in mean within phase symptom level from baseline to treatment phase for worry. There is an overall unchanged pattern with low levels of symptoms reported through both baseline and treatment phase for cognitive/emotional avoidance.

Participant 5. Participant 5 shows a pattern for the daily measures of worry and cognitive/emotional avoidance, with high day-to-day variability in reported symptoms in both phases. There is a decrease in mean within phase symptom level from baseline to treatment phase for both worry and cognitive/emotional avoidance. Starting at baseline, a decreasing level in reported worry can be observed, stabilizing from session 5 and onward. There are nine data points missing at the end of treatment.

Participant 6. Participant 6 shows a pattern for the daily measures of worry and cognitive/emotional avoidance, with high day-to-day variability in reported symptoms in both phases. There is a decrease in mean within phase symptom level from baseline to treatment phase for worry, and an increase for cognitive/emotional avoidance. A decreasing variability and level in reported worry can be observed after treatment initiation continuing to the end of treatment.

Procentual Change in Emotional Symptoms and Functional Impairment.

Treatment effect on improvements in emotional symptoms and functional impairment operationalized as procentual change from pre- and post- treatment measurement are shown in Table 4. In the table it can be seen that five out of six participants reported decreased levels of exhaustion and functional impairment at post-treatment.
Table 4

<table>
<thead>
<tr>
<th>Participant</th>
<th>Exhaustion</th>
<th>Anxiety</th>
<th>Depression</th>
<th>Positive Affect</th>
<th>Negative Affect</th>
<th>Functional Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Change</td>
<td>Pre</td>
<td>Post</td>
<td>Change</td>
</tr>
<tr>
<td>1</td>
<td>.54</td>
<td>.06</td>
<td>-89%</td>
<td>3</td>
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<td>+40%</td>
</tr>
<tr>
<td>2</td>
<td>.39</td>
<td>.00</td>
<td>-100%</td>
<td>6</td>
<td>4</td>
<td>-33%</td>
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<tr>
<td>3</td>
<td>.39</td>
<td>.33</td>
<td>-15%</td>
<td>10</td>
<td>11</td>
<td>+9%</td>
</tr>
<tr>
<td>4</td>
<td>.64</td>
<td>.32</td>
<td>-50%</td>
<td>18</td>
<td>12</td>
<td>-33%</td>
</tr>
<tr>
<td>5</td>
<td>.48</td>
<td>.66</td>
<td>+27%</td>
<td>11</td>
<td>12</td>
<td>+8%</td>
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<tr>
<td>6</td>
<td>.63</td>
<td>.20</td>
<td>-68%</td>
<td>15</td>
<td>11</td>
<td>-27%</td>
</tr>
</tbody>
</table>

Note: Exhaustion as measured with LUCIE SVS. Anxiety as measured with HADS anxiety subscale. Depression as measured with HADS depression subscale, and MADRS-S (MADRS-S values italicized). Positive and Negative Affect as measured with Short PANAS. Functional Impairment as measured with WSAS.
The magnitude of change pertaining to exhaustion varies from very small (-15% for participant 3) to complete reversal of symptoms (100% for participant 2) whereas participant 5 deteriorated somewhat. For functional impairment the magnitude of change for the improved participants varies from very small (-3% for participant 5) to very high (-94% for participant 2). Again one participant deteriorated (6). For the other measures there was a more differentiated pattern. Overall five out of six participants (1,2,4,5,6) improved or remained overall stable (very small changes in either direction) on the majority of symptoms whereas one participant (3) deteriorated somewhat on some measures and remained overall stable on others.

**Procentual Change in Transdiagnostic Processes**

Treatment effect on improvements in transdiagnostic psychological processes operationalized as procentual change from pre- and post- treatment measurements are shown in Table 5.

In the table it can be seen that two participants (2,4) showed a decrease in the use of all transdiagnostic processes at the end of treatment. The magnitude of change ranged from -9% to -65%. One participant (5) showed a decrease in the use of all transdiagnostic processes except for perseverative thinking showing an increase of 7%.

The remaining three participants (1,3,6) increased their use of the majority of transdiagnostic processes, with a magnitude of change ranging from +6% to +36%. Although an overall increase, participant 2 and 3 decreased somewhat in the use of cognitive safety behaviors and participant 6 in the use of perseverative thinking.
Table 5

Levels on instruments targeting transdiagnostic processes at pre- and post assessment

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<tr>
<td></td>
<td>Pre</td>
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<td>Change</td>
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<tr>
<td>1</td>
<td>CS:</td>
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<td>BS:</td>
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<td>CN:</td>
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<td>12</td>
<td>+0%</td>
<td>BN:</td>
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<td>2</td>
<td>CS:</td>
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<td>6</td>
<td>-65%</td>
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<td>CN:</td>
<td>23</td>
<td>13</td>
<td>-44%</td>
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<td>3</td>
<td>CS:</td>
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<td>-7%</td>
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<td>CN:</td>
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<td>17</td>
<td>+12%</td>
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<td>4</td>
<td>CS:</td>
<td>11</td>
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<td>-9%</td>
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<td>CN:</td>
<td>21</td>
<td>18</td>
<td>-14%</td>
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<td>5</td>
<td>CS:</td>
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<td>CN:</td>
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<td>21</td>
<td>+14%</td>
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</table>

Cognitive and behavioral Avoidance as measured with CBAS, including Cognitive Social (CS), Cognitive Nonsocial (CN), Behavioral Social (BS), and Behavioral Nonsocial (BN) subscales (Ottenbreit & Dobson, 2004). Perseverative Thinking as measured with PTQ (Ehring, et al., 2011). Cognitive Safety Behaviors and Catastrophizing as measured with items derived from the SCBS (MacDonald, et al., 2008).
Clinical Significant Change in Emotional Symptoms, Functional Impairment and Transdiagnostic Processes

Clinical significant change in emotional symptoms, functional impairment and transdiagnostic processes for all participants are presented in Table 6. For operationalization of clinical significance for the different measures see method section.

In the table it can be seen that five of six participants (1, 2, 3, 4, 6) decreased in levels of exhaustion from clinical levels at pretreatment level, to subclinical levels at post assessment. Two participants of the six (4, 6) decreased their levels on anxiety from severe, to levels of clinical significance. Levels of depression decreased from clinical levels to subclinical levels in four of the six participants (1, 2, 4, 6). Two of the six participants increased in levels of positive affect to levels comparable to a community sample, whereas one participant (5) decreased in levels of negative affect comparable to the aforementioned sample (MacKinnon, et al., 1999). Two of six participants (2, 4) showed decreases of clinical relevance in functional impairment, whereas one participant (6) made an increase of clinical significance.

Regarding process measurements, participants were within the range of clinical sample on some, but not all of the measures. In addition, it varied on which measurements the participants showed clinical levels. Participant 2 decreased in levels of perseverative thinking from clinically significance at pre-assessment, as compared to means in a sample with anxiety disorders, to considerably below the mean of a non-clinical sample at post-assessment (Ehring, et al., 2011). Participant 4 showed levels of catastrophizing above one standard deviation above mean in a sample with high stress symptomatology at pre-assessment, but decreased below mean at post-assessment (Boersma et al., manuscript).
### Table 6

Levels in emotional symptoms, functional impairment and transdiagnostic processes at pre- and post assessment compared with normative data.

<table>
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<th>Ex</th>
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<th>Dep</th>
<th>PA</th>
<th>NA</th>
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</table>

**Note.** *Exhaustion* measured with LUCIE SVS, where * indicates levels of clinical significance. *Anx (anxiety)* and *Dep (depression)* measured with HADS anxiety and depression subscales, where b indicates borderline levels of anxiety or depression, *indicates anxiety or depression of clinical relevance, a indicates severe anxiety or depression. *Dep (depression)* measured MADRS-S (*MADRS-S values in italics*) where * indicates mild depression, 4 indicates moderate/severe depression. *PA (positive affect)* and *NA (negative affect)* measured with Short PANAS, where * indicates levels ≥ 1 SD below mean in a community sample (MacKinnon, et al., 1999). *PT (perseverative thinking)* measured with PTQ, where * indicates levels ≥ 1 SD above mean in a non-clinical population (Elzinga, et al., 2011). *CA (cognitive avoidance)*, with subscales cognitive social (CS), and cognitive nonsocial (CN); and *BA (behavioral avoidance)*, with subscales behavioral social (BA), and behavioral nonsocial (BN), measured with CBAS, where * indicates levels ≥ 1 SD above mean in a non-clinical population (Moulds, et al., 2007). *PT (perseverative thinking)* measured with PTQ, where * indicates levels ≥ 1 SD above mean in a non-clinical population (Elzinga, et al., 2011). *CSB (cognitive safety behaviors)* and *Cat (catastrophizing)* measured with SBCS, where * indicates levels comparable to sample with stress symptomatology. * indicates levels ≥ 1 SD above mean in a sample with high stress symptomatology (Boersma, et al., manuscript). Values in red indicate improvement of clinical significance.
Participant 5 showed elevated levels of cognitive nonsocial avoidance and behavioral nonsocial avoidance at pre-assessment, as compared to a non-clinical sample (Moulds, et al., 2007), but decreased to within the normal range at post-assessment. Further, participant 5 decreased in levels of cognitive safety behaviors to levels below that of a sample with high stress symptomatology (Boersma, et al., manuscript).

Participant 6, on the other hand, increased in levels of catastrophizing from levels below at pre-assessment, to levels comparable to means of a sample with high stress symptomatology (Boersma, et al., manuscript).

Treatment Satisfaction

All six participants filled in the evaluation form at post-treatment assessment. Answers of eight selected items pertaining to treatment satisfaction are presented in Table 7.

Table 7

Answers to eight selected items on the evaluation form for all participants

<table>
<thead>
<tr>
<th>What the focus of treatment addressed my needs</th>
<th>Fully agree</th>
<th>Agree</th>
<th>Agree to some extent</th>
<th>Do not agree</th>
<th>Do not agree at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>The treatment has helped me handle my problems</td>
<td>2,3,4,6</td>
<td>1,5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The treatment has given me a greater insight and understanding in my problems</td>
<td>1,4,6</td>
<td>2,3</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>The treatment has given me helpful tools that can be applied in my daily life</td>
<td>1,2,6</td>
<td>3,4</td>
<td></td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Would you recommend a friend with similar symptoms to undergo this treatment?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3,4,5,6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of sessions</th>
<th>Far too few</th>
<th>Too few</th>
<th>Just enough</th>
<th>Too many</th>
<th>Far too many</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,1</td>
<td>4</td>
<td>6,2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact with therapist</th>
<th>Very good</th>
<th>Good</th>
<th>Pretty good</th>
<th>Bad</th>
<th>Very bad</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3,4,5,6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Particularly helpful element?</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Dialogue&quot;</td>
</tr>
<tr>
<td>&quot;Be granted permission to be myself&quot;</td>
</tr>
<tr>
<td>&quot;Personal examples explained on the white board, incorporated in the models&quot;</td>
</tr>
<tr>
<td>&quot;The diary&quot;</td>
</tr>
<tr>
<td>&quot;The diary, keeping a dialogue, discussing thoughts and feelings/emotions&quot;</td>
</tr>
<tr>
<td>&quot;A greater awareness/ understanding of myself, help to put my difficulties into words&quot;</td>
</tr>
</tbody>
</table>
Stress, Emotions and Transdiagnostic Treatment (49)

Discussion

The aim of this study was to test the feasibility of treating patients suffering from stress-related ill health with a transdiagnostic ‘unified’ treatment protocol primarily focusing on acceptance and flexibility of emotions and emotional responding. In sum, the results showed, to varying degree, and varying consistency, improvements for most of the participants. The results indicate that further investigation of the effect of treatment is justified, taken into account reduced levels of exhaustion, decreased functional impairment, in addition to the participants’ ratings of perceived relevance of the foci of treatment.

Another aim was to investigate whether it is adequate to conceptualize stress-related ill health along the dimensions of emotion regulation and from a transdiagnostic perspective. The results of the study show some indication of this why further research is recommended. The results are discussed in further detail below in relation to the corresponding questions and hypotheses.

What is the Effect of Treatment on Perceived Stress and Daily Functioning?

There is partial support for the unified treatment protocol to have effect on perceived stress. Four out of six participants treated did indeed report reduction in symptoms of perceived stress on the majority of measurements used, and furthermore, these reductions were all clinical significant. However two participants did not show any overall decrease in reported symptoms and did actually deteriorate on some of the measures. For one participant (5) a highly strained family- and work situation and a high degree of complementing psychosocial problems were pertinent, hence making the clinical picture complicated. Indeed, this person reported a very high variability in symptom reports on daily as well as weekly measures in general. It is possible that this participant did not have the energy to implement strategies and techniques learned in treatment in her daily life. This hypothesis is supported by low completion of homework and practicing. However, the lack of treatment effect could also
suggest that, for patients with more diverse and severe psychosocial problems, treatment according to unified protocol is not effective in the short format used within this study. In fact, while all participants reported that they considered the treatment content to be consistent with their needs, half of them found the amount of sessions too few. This indicates that treatment effect could be improved by increasing the amount of sessions. Further studies, preferably using randomized controlled trials would shed further light on possible moderating factors in relation to treatment outcome.

For the other participant (3) who did not improve (except for a small decrease in symptoms of exhaustion), worsening of symptoms coincided with an important relationship ending. As this was very distressing this may have been the cause of symptom elevation for the participant as reported by the diary as well as in session. Although this might explain the reported symptom increase it does not explain the lack of improvement in symptoms prior to this event. This could implicate that the treatment did not have an effect on reported symptoms of stress and functional impairment for this participant. However, there is also a possibility that treatment effect would have been delayed as for several of the improved participants and hence being eluded by the situation with the ended relationship.

Regarding the question whether the treatment would lead to self reported increased functioning in daily life there is some support, since three out of six participants did in fact report a reduction of functional impairment on daily as well as pre- and post measures. Further for two of the participants, the reduction was found to be clinically significant (2,4). Participant 5 did not show any changes in reports of functional impairment whereas two participants showed increases on one measure (daily for participant 3 and pre- post for participant 6) and decreases on the other. Whereas for participant 5 the same arguments as to the lack of effects in perceived stress can be made regarding functional impairment, the non-converging results of participants 3 and 6 are harder to explain. It could be that the different
instruments used measure somewhat different constructs. However, four out of six participants do show a converging pattern of change on these two measures. This makes it plausible that the difference in change on these two function measures may be explained by the two participants different perceptions on either the question of hindrance or the different items included in WSAS. In fact, the daily measure of functional ability exemplifies possible reasons for hindrance that may open up for considerable variation in interpretation.

In sum, in general there was high variability in reported daily symptoms across both baseline and treatment phase for several of the participants (1,3,5,6). Still, an overall increase or decrease in mean level pertaining to the different phases was evident for several of the participants. Combining and converging this with improvements on the complementary weekly measures and pre- and post measures it is relevant to make careful interpretations of a treatment effect for four out of six of the participants as outlined above.

_Are Participants Satisfied With Treatment?_

A post-treatment assessment of treatment was administered that indicated that all participants were content with the intervention. All participants agreed that the focus of the treatment met their needs. Further, the majority agreed that the treatment had helped them handle their problems, gaining insight into their problems, and given them helpful tools to be applied in daily life. All participants would further recommend the treatment to a good friend, which implies that they perceived the treatment as helpful and satisfactory. This gives support to the implication of feasibility to treat patients suffering from stress-related ill health with the unified protocol as it suggests that these patients feel content with the treatment foci of maladaptive emotion regulatory processes. However, it is not clear whether the participants in this study are representative of people suffering from stress-related ill health wherefore a larger trial is recommended for further investigation.
Does Perceived Stress Co-vary with Anxiety and/or Depression?

Overall, convergent validity is supported by showing co-variation in change among daily, weekly and pre- and post- measures of stress, anxiety and/or depression for the majority of participants, although a few exceptions are evident. For one participant (2), there was a complete convergence in pattern of change among weekly measures of stress, anxiety and depression, and changes on similar measures at pre- and post assessment as well as daily reports. For four participants there was an overall convergence of change on the majority, but not all, measures of stress, anxiety and/or depression. One participant (5) did not improve and overall reported highly variable symptom levels and it is therefore hard to interpret whether there is a relation between symptoms of stress, anxiety and depression. In sum, the hypothesis is supported by the results. This is in line with research showing high comorbidity between stress symptomatology and the emotional disorders (Almén, 2007, Schaufeli & Enzmann, 1998; McKnight & Glass, 1995).

Do Participants Show Elevated Scores on Maladaptive Emotion Regulation Strategies and Transdiagnostic Processes? Is Decrease in Emotional Symptomatology Related to Decrease in Worry and Avoidance?

Daily measures used for worrying and cognitive/emotional avoidance in this study showed elevated yet highly variable levels supporting the relevance of these constructs for stress-related ill health. However, it is not possible to conclusively say whether these elevated scores have construct validity, since these measures have not been psychometrically tested. Another explanation could be that the transdiagnostic processes measured in this study is in fact not related to stress symptomatology, and that the elevated levels can be explained by other emotional symptoms, like anxiety and depression. This would be in line with some previous research showing that for example high occurrence of perseverative thinking is found in people with anxiety and mood disorders, but levels in other disorders are comparable to
Indeed, the majority of participants in this study did not show elevated scores on pre- and post instruments measuring the use of maladaptive emotion regulation strategies and transdiagnostic processes. In fact, only two participants did (4,5), and only at one or two of the constructs measured. This is somewhat surprising, since stress-related ill health have been found to be related to the use of maladaptive emotion regulation strategies like worry (Verkuil, Brosschot, Korrelboom, Reul-Verlaan, & Thayer, 2011; Brosschot, Gerin, & Thayer, 2006). The lack of relationship between the daily measures and the standardized measures needs to be further investigated. This would be interesting, since it could be that the daily measures used in this study of maladaptive emotion regulation strategies such as worry and emotional avoidance are actually more sensitive measures than the others used in the study. It could be that daily measures per se are preferable when charting the use of some transdiagnostic processes.

The relationship of changes in the use of transdiagnostic processes and its relation to changes in emotional symptomatology is inconsistent and difficult to interpret. Although two participants (2,4) who showed decreases in emotional symptomatology also showed decreases in the use of all transdiagnostic processes at the end of treatment as well as on at least one of the daily measures, other participants did not (1,6). In fact they instead showed increases in the use of the majority of transdiagnostic processes on the post measures. Further, participant 5, who did not show any clear improvement in emotional symptomatology, did report a decreased use of the majority of transdiagnostic processes on post measurements as well as on daily measures. Participant 3 who showed a deteriorated pattern for emotional symptomatology also showed an increase use of transdiagnostic processes at post treatment.

In summary, three participants (2,4,3) showed a pattern that suggests that there is convergence in the use of maladaptive emotion regulation strategies and emotional
Symptomatology, whereas three participants show the opposite pattern. Further studies are needed to clarify the relationship between these processes and outcome. The investigation whether it is adequate to conceptualize stress-related ill health along the dimensions of emotion regulation, hence to be included in a transdiagnostic perspective, reveals results that support the first hypothesis, but for the second hypothesis the results are inconclusive.

**Strengths and Weaknesses of this Study**

The current study makes use of a multiple baseline design across six individuals, a design that is highly suitable in applied settings, and more specifically in feasibility studies, where it serves as an ethically, practically and economically defensible alternative to group studies. It offered an opportunity to investigate if conducting a larger-scale research project concerning the current treatment package and population is justified, by revealing trends in outcome, alongside the identification of obstacles that can be resolved, and improvements that can be made. Further, the design allows taking into account the diversity of the clinical reality: Baseline initiation followed the in-flow/recruitment of participants as they sought help.

Moreover, recruiting a relatively large number of participants, of whom all completed the entire program, considerably increased the strength of the design. In theory only two baselines are needed for making inferences, but increasing the number of baselines and hence in the design of this study, the participants, strengthens the design considerably, making it less vulnerable to threats to internal validity as well as difficulties in interpretation due to somewhat differing results (Kazdin, 2011). Yet, this design has also disadvantages as the high variability in symptom reporting of the participants in this study make the reliability in judging changes more questionable. In fact, a prerequisite of detecting unequivocal change during treatment is stability at baseline (Kazdin, 2011). In the current study, baseline length varied between two and four weeks, a relatively short period of time, considering the variability in data. While making use of calculating mean levels during phases can aid in
detecting treatment effects, the results of this study should be regarded as preliminary and need further studying.

Moreover, the changes on both weekly and some of the daily reports of symptoms occurred not immediately after treatment start, but considerably later during treatment. This does make the connection between treatment and improvement less clear and increases the plausibility that other factors, like the mere passage of time could actually explain the effect, as with statistical regression (Kazdin, 2010). However, given the format of the presented treatment, one of the main interventions, namely exposure, was introduced at a fairly late time in treatment (after the fifth session). The changes in symptoms co-occurred with the introduction of exposure. Given that it has been suggested that exposure is the most active ingredient in cognitive behavioral therapy treatment (Farmer & Chapman, 2007), this could be a possible explanation for the delayed effect.

A strength of this study is that participants recruited were seeking regular care at an occupational health care clinic. Health care professionals conducted initial selection and in addition to a rigorous assessment procedure, this increases the chances of adequate recruitment in terms of inclusion and exclusion criteria, hence decreasing the risks of mismatch between symptomatology and focus of the intervention. Moreover, the therapists were continuously getting clinical supervision by a licensed psychologist/psychotherapist with extensive experience in cognitive behavioral therapy and stress symptomatology, and followed a standardized manual, to ensure treatment fidelity on behalf of the therapists.

Furthermore, another strength of this study was that extensive day-to-day measurement was used, combined with standardized weekly, and pre- and post-measurements. The type of administration of the electronic diary and the weekly measures facilitated real time control of adherence, which is also considered a major strength, contemplating the influence of memory biases on retrospective reports (Edvardsson, 2003).
However, relying solely on self-report data is considered problematic, due to its proneness to response bias, for example social desirability, or reporting symptoms unreliably. Moreover, using multiple measurements can cause reactivity (Kazdin, 2010; Kazdin, 2011). Conducting a randomized controlled trial, the psychometric properties of the diary should be investigated. Further, it might be administered to both conditions, or to two conditions, in addition to a waitlist control, in order to control for salutogenic effects of filling in the diary. In addition to self-report data, outcome data on for instance sick leave percentage, behavioral observation, or other sources might be included to strengthen the validity.

A limitation of this study is that the number of treatment sessions (eight sessions) was decreased compared to the original Unified Protocol (12-18 sessions, Barlow et al. 2011a). This choice was made partly as this study was designed as a short intervention that aims at individuals who are still in the workforce and thus may not need or have time for extensive treatment, and also due to a limited time frame of the study. This may have had a significant impact on the treatment effect. While no modules were excluded (instead they were introduced in brief, leaving participants to rely heavily on revising the workbook and conduct the majority of work between sessions) both therapists and participants did experience a discrepancy between the amount of material and the number of sessions, as having a negative impact on the treatment. However, to compensate for the compromised length of treatment, the therapists were available for e-mail correspondence between sessions, permitting support, clarification regarding theoretical concepts, techniques, or homework reviewed in-session, in addition to reminders of completing the baseline measures. Participants reported that they found this very useful. This service is not included in the original concept of the Unified Protocol, and might have increased the treatment effects, although the addition of elements was judged to outnumber the costs. Moreover, a workbook, accompanying the unified treatment protocol (Barlow, et al., 2011), was translated into
Swedish for the purpose of the study, and were offered free of charge to the participants. In respect to the compromised length of the treatment, it might function as a guide for participants to continue practicing the skills, and reviewing the theoretical concepts during and after treatment. Further, the material can be made available for future research, to be revised or extended. Also, the workbook was intended to reinforce the experimental manipulation by providing the participants with practice material and therefore facilitate generalization. Note that the workbook should be treated as an adaptation of the Unified Protocol workbook, including all of the treatment modules, but excluding other chapters and adapted to the population of stress patients. This implies that parts of the original material never were presented to the participants, hence the conclusions that can be drawn regarding the effect of the original Unified Protocol workbook, are limited.

A possible threat to the internal validity of this study is the fact that in two cases, concurrent pharmacological interventions were implemented in approximation to the baseline initiations. Participants 1 and 4 were given prescribed antidepressant medication by their physicians. This may impact on to which extent it is plausible to attribute changes in levels of symptoms to the target intervention. To increase likelihood of drawing valid inferences, the baseline lengths of these two individuals were adjusted to render possible stabilization of the therapeutic effect of the medication. This offered at least four weeks in between the initiation of medicine and the target intervention. The stabilization period of the medications is thought to be two weeks, but sometimes longer (Farmaceutiska Specialiteter i Sverige (FASS), 2011). Notwithstanding, this complicates the interpretation of the results on baseline 1 and 4, which is problematic for at least two reasons: First, the Unified Protocol aims at elicit and expose the participant to emotions. If the participants' ability to evoke and experience strong emotions is subdued by medication, the treatment effect might be hampered. Second, antidepressant medication that is initiated concurrently with the independent variable makes impossible to
attribute probable treatment effects to the independent variable. Medication might be allowed, if held at a stable dosage prior to baseline initiation (Barlow et al., 2011).

Lastly, ideally, in addition to continued post-treatment baseline measures, a rigorous follow up assessment is to be conducted, as it facilitates detection of long-lasting treatment effects (Kazdin, 2010). Due to time restraints, apart from post-treatment assessment as carried out in direct connection to session eight, no follow-up measurements were conducted, which hinders drawing conclusions regarding long-lasting treatment effects, or detecting effects emerging after the treatment has ended, especially in respect to the compromised format in the current study. Therefore, conducting follow up assessment is strongly recommended in future research.

**Theoretical Implications**

The Unified Protocol shows promising potential in targeting symptoms and mechanisms that might be critical in the maintenance of stress-related problems. Much of the bridging is done, as the unified protocol is proposed to be beneficial in somatoform disorders, a cluster to which several stress-related symptoms and disorders belong (Socialstyrelsen/WHO, 2011; Barlow et al., 2011a). On a clinical level, comorbidity among disorders are evident, whereas failure to handle situations at work, home or in social life, can be attributed to stress, possibly fueled by maladaptive behavioral strategies. Which in turn, also can be associated with the underlying mechanisms of psychopathology. Attributing the cause and maintenance of stress-related problems to the individual might in some cases be interpreted as stigmatizing, albeit stigma solely, should not provide a sufficient motive for dismissing a potentially beneficial theoretical pathway.

To the authors' knowledge, there are no opposing factor hindering a detailed investigation of shared mechanisms pertaining to stress-related ill health, mood and anxiety. The advantages outlined show that further investigation is legitimized. The exact relationship
regarding the symptomatology operationalized as e.g. perceived stress, exhaustion, anxiety and depression should be investigated, by highlighting causal relationships, paying attention to mediating and moderating factors preferably in a randomized controlled trial.

The current study aimed to open up further investigation of shared mechanisms and overlapping symptomatology. By stressing emotions and their role in the maintenance of stress-related ill health, this might stimulate new trajectories in a research field that bears significance to many people in their daily lives.
References


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Stress, Emotions and Transdiagnostic Treatment


Flink, I., Klingstedt, L. Medveten Närvaro. CD skiva med övningar i medveten närvaro. Center for Health and Medical Psychology (CHAMP), Örebro Universitet & Rehabiliteringsmedicinska kliniken, Örebro Universitetssjukhus. Örebro, Sweden.


SBCS

Vi är intresserade av de tankar och känslor du har när du har symtom från stress oavsett om du har symtom eller problem för närvarande.

### När jag har symtom...

<table>
<thead>
<tr>
<th>1. Bör jag undvika känsломässigt krävande situationer.</th>
<th>Stämmer inte alls</th>
<th>Stämmer dåligt</th>
<th>Stämmer delvis</th>
<th>Stämmer bra</th>
<th>Stämmer helt</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Kan jag inte sluta tänka på det.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Tänker jag hela tiden på hur mycket jag skulle vilja bli kvitt problemet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Blir jag rädd att mina besvär ska förvärras</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Undrar jag om det är något allvarligt fel på mig.</td>
<td></td>
<td></td>
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<tr>
<td>6. Finns det ingenting jag kan göra för att lindra symtomen.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7. Tror jag att jag aldrig ska bli kvitt problemet.</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8. Är det bäst att jag undviker att tänka på krävande problem i största möjliga utsträckning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Är det bäst att jag undviker situationer som kräver långvarig och intensiv uppmärksamhet.</td>
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</tr>
</tbody>
</table>
Datum: ___________ Kod: ______

**Dagbok: Emotioner och Stress**
Nedan följer några påståenden om hur dagen har varit. Markera det alternativ som du tycker stämmer bäst in på dig idag.

*Obligatorisk*

<table>
<thead>
<tr>
<th><strong>Idag har jag känt mig stressad</strong>*</th>
<th><strong>Inte alls</strong></th>
<th><strong>Extremt</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0]</td>
<td>[1]</td>
<td>[2]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Idag har mina symptom besvärat mig</strong>*</th>
<th><strong>Inte alls</strong></th>
<th><strong>Extremt mycket</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0]</td>
<td>[1]</td>
<td>[2]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Idag har mina symptom hindrat mig från att genomföra de aktiviteter jag planerat på arbetet, hemma och/eller på fritiden</strong>*</th>
<th><strong>Inte alls</strong></th>
<th><strong>Helt och hållet</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Exempel: Att ställa in/låta bli en aktivitet pga. stress, orkeslöshet, trötthet eller att jag inte har lust)</td>
<td>[0]</td>
<td>[1]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Idag har jag upplevt att jag har kunnat hantera de problem/utmaningar som uppkommit på ett tillfredsställande sätt</strong>*</th>
<th><strong>Inte alls</strong></th>
<th><strong>Helt och hållet</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[0]</td>
<td>[1]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Idag har jag undvikit tankemässigt och/eller känslomässigt krävande situationer</strong>*</th>
<th><strong>Inte alls</strong></th>
<th><strong>Helt och hållet</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Exempel: att skjuta upp eller att inte genomföra en svår uppgift, såsom att skriva en rapport eller att planera en fest; att undvika en konflikt eller ett laddat samtal)</td>
<td>[0]</td>
<td>[1]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Idag har jag ältat negativa tankar och/eller problem</strong>*</th>
<th><strong>Inte alls</strong></th>
<th><strong>Extremt mycket</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[0]</td>
<td>[1]</td>
</tr>
</tbody>
</table>
Datum: __________ Kod: __

Idag har jag oroat mig för olika saker i min vardag och/eller framtiden*

<table>
<thead>
<tr>
<th>Inte alls</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Idag har jag undvikit att tänka på krävande problem*

<table>
<thead>
<tr>
<th>Inte alls</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Idag har jag ansträngt mig för att utföra de uppgifter jag har på jobbet och/eller hemma så perfekt som möjligt*

<table>
<thead>
<tr>
<th>Inte alls</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

**Affektrutnäet**

Idag har jag känt mig...*  

<table>
<thead>
<tr>
<th>Extremt trött/slö</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Idag har mina känslor varit...*  

<table>
<thead>
<tr>
<th>Extremt obehagliga</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Egna reflektioner (valfritt)  

Här finns utrymme för egna kommentarer

---

Tack!
### Utvärdering Emosstudien

Hur väl stämmer följande påståenden överens med Din upplevelse av den behandling Du nu genomgått? Kommentera gärna!

<table>
<thead>
<tr>
<th>Behandlingens fokus passade mina behov.</th>
<th>Behandlingen har gett mig användbara verktyg som kan användas i min vardag.</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Stämmer väldigt väl</td>
<td>□ Stämmer väldigt väl</td>
</tr>
<tr>
<td>□ Stämmer väl</td>
<td>□ Stämmer väl</td>
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<tr>
<td>□ Stämmer ganska väl</td>
<td>□ Stämmer ganska väl</td>
</tr>
<tr>
<td>□ Stämmer inte</td>
<td>□ Stämmer inte</td>
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<tr>
<td>□ Stämmer inte alls</td>
<td>□ Stämmer inte alls</td>
</tr>
<tr>
<td>Kommentarer: _________________________</td>
<td>Kommentarer: _______________________</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behandlingen har hjälpt mig att hantera mina problem.</th>
<th>Hur upplevde Du...</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Stämmer väldigt väl</td>
<td>...arbetsboken?</td>
</tr>
<tr>
<td>□ Stämmer väl</td>
<td>□ Väldigt bra</td>
</tr>
<tr>
<td>□ Stämmer ganska väl</td>
<td>□ Bra</td>
</tr>
<tr>
<td>□ Stämmer inte</td>
<td>□ Ganska bra</td>
</tr>
<tr>
<td>□ Stämmer inte alls</td>
<td>□ Dålig</td>
</tr>
<tr>
<td>Kommentarer: _________________________</td>
<td>□ Väldigt dålig</td>
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<td>Kommentarer: _______________________</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Behandlingen har gett mig en större insikt och förståelse för mina problem.</th>
<th>...CD-skivan?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Stämmer väldigt väl</td>
<td>□ Väldigt bra</td>
</tr>
<tr>
<td>□ Stämmer väl</td>
<td>□ Bra</td>
</tr>
<tr>
<td>□ Stämmer ganska väl</td>
<td>□ Ganska bra</td>
</tr>
<tr>
<td>□ Stämmer inte</td>
<td>□ Dålig</td>
</tr>
<tr>
<td>□ Stämmer inte alls</td>
<td>□ Väldigt dålig</td>
</tr>
<tr>
<td>Kommentarer: _________________________</td>
<td>Kommentarer: _______________________</td>
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</tbody>
</table>

...arbetsboken?

...CD-skivan?
...hemuppgifterna (gällande mängd)?
☐ Alldeles för mycket
☐ Mycket
☐ Lagom
☐ För lite
☐ Alldeles för lite

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________

...hemuppgifterna relevans för Dig?
☐ Väldigt relevanta
☐ Relevanta
☐ Ganska relevanta
☐ Ej relevanta
☐ Inte alls relevanta

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________

...antalet behandlingssessioner?
☐ Alldeles för många
☐ För många
☐ Lagom
☐ För få
☐ Alldeles för få

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________

...längd på själva sessionerna?
☐ Alldeles för långa
☐ För långa
☐ Lagom
☐ För korta
☐ Alldeles för korta

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________

...kontakten med Din behandlare under sessionerna?
☐ Väldigt bra
☐ Bra
☐ Ganska bra
☐ Dålig
☐ Väldigt dålig

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________

...att föra dagbok gällande Ditt mående?
☐ Väldigt bra
☐ Bra
☐ Ganska bra
☐ Dåligt
☐ Väldigt dåligt

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________

...det extra stödet i form av e-post-kontakt med Din behandlare?
☐ Väldigt bra
☐ Bra
☐ Ganska bra
☐ Dåligt
☐ Väldigt dåligt

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________

...dagboksfrågornas relevans för Dig?
☐ Väldigt relevanta
☐ Relevanta
☐ Ganska relevanta
☐ Ej relevanta
☐ Inte alls relevanta

Kommentarer: ____________________________________________
________________________________________________________________
________________________________________________________________
... antal frågor i dagboken?
☐ Alldeles för många
☐ För många
☐ Lagom
☐ För få
☐ Alldeles för få

Kommentarer:__________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

...för- och eftermätningarna (antal frågor)?
☐ Alldeles för många
☐ För många
☐ Lagom
☐ För få
☐ Alldeles för få

Kommentarer:__________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

...veckoskattningarna (frågornas relevans för Dig)?
☐ Väldigt relevanta
☐ Relevanta
☐ Ganska relevanta
☐ Ej relevanta
☐ Inte alls relevanta

Kommentarer:__________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Skulle Du tipsa en vän som upplevde problem som liknade Dina, att söka denna behandling?
☐ Nej
☐ Ja

Kommentarer:__________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Var det något moment i behandlingen som Du upplevde som särskilt hjälpsamt?
☐ Nej
☐ Ja, nämligen: ________________________________

Kommentarer:__________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Saknade Du något i behandlingen?
☐ Nej
☐ Ja, nämligen: ________________________________

Kommentarer:__________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Var det någon del av behandlingen som Du upplevde som överflödig?
☐ Nej
☐ Ja, nämligen: ________________________________

Kommentarer:__________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
Har du några ytterligare synpunkter? Dina åsikter är väldigt värdefulla i arbetet med att utvärdera denna behandling!

____________________________________________________________________________________________________________
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Tack för Din medverkan!
EMOS-studien
Behandling vid stressrelaterad ohälsa
Information och tillfrågan om möjlighet att medverka i behandlingsstudie

Vi är två psykologstuderenter vid Örebro Universitet som under hösten 2011 kommer att skriva vår examensuppsats. Som en del av detta kommer vi genomföra en förstudie inför ett kommande projekt i samarbete mellan Landstingshälsoan och Örebro Universitet.

Syftet med studien är att utprova en behandlingsmetod, utarbetad för känslomässiga symptom för människor som lider av stressrelaterad ohälsa, eftersom nedsämndhet, depression, ångest och oro är vanliga problem vid stress.


Behandlingen inleds först efter ifyllandet av dessa formulär. Du träffar Din behandlare under ett samtal/vecka under 8-9 veckor. Behandlingen kommer att innebära ett mycket nära samarbete mellan Dig och Din behandlare och Du kommer att få en pärm med material att arbeta med mellan samtalen. Du har även möjlighet till kontinuerlig kontakt med Din behandlare via e-post.

Deltagande är kostnadsfritt för Din arbetsgivare och Dig och Du kan när som helst under studiens gång välja att avbryta ditt deltagande utan att behöva uppgi orsak. Projektet omfattas av Landstingshälsoans sekretessbestämmelser.

Vi hoppas att detta låter intressant för just Dig!
Med vänliga hälsningar

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