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Anxiety, obsessions, compulsions and depression in postpartum women: effects on parental stress and quality of life

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Abstract

Anxiety disorders and obsessive-compulsive disorder among women in the postpartum period are understudied and their impact upon maternal functioning is poorly understood. There is evidence that individuals with greater levels of psychological flexibility (the ability to persist in valued domains of living despite the presence of negative emotions/thoughts/sensations) and higher levels of social support may moderate the effects of emotional and physical disorders on overall functioning and quality of life (QoL). The aims of the present study were three-fold. First, to assess the incidence of anxiety and obsessive-compulsive (OC) symptoms in a large sample of postpartum women. Second, to examine the impact of anxiety and OC symptoms on parenting stress and quality of life (QoL). Third, to explore whether the relationship between symptoms and parenting stress/QoL was mediated by psychological flexibility and social support. Consistent with expectations, anxiety and OC symptoms were common, particularly in women with a history of mental health problems. Likewise, women with higher levels of anxiety and OC reported higher levels of parental stress and lower quality of life. Preliminary analyses suggest that psychological flexibility, but not social support, mediates the relationship between anxiety/OC symptoms and parenting stress/QoL. These findings underlie the importance of screening postpartum women for symptoms of anxiety and obsessive-compulsive disorder. The findings further suggest that interventions aimed at increasing psychological flexibility may help improve parenting and quality of life in postpartum women with high levels of anxiety and OC symptoms.

Keywords: postpartum, women, anxiety disorders, obsessive-compulsive disorder, intrusive thoughts, acceptance and committed action, perceived social support, parenting stress, health-related quality of life, regression analysis, parallel mediation analysis

Sammanfattning

Allvarligare ångesttillstånd och tvångssyndrom som uppstår eller förvärras i samband med förlossning är ett relativt outforskat område. Syftet med studien var att undersöka förekomsten av ångest och tvångsrelaterade symtom hos ett stort antal kvinnor som nyligen fött barn, och hur dessa symtom står i relation till stress i föräldrarollen och upplevd livskvalitet.
I linje med uppsatsens antaganden visade det sig att såväl ångestsymtom som tvångsrelaterade symtom var vanliga, och ännu vanligare hos de kvinnor som uppgav att de tidigare lidit av psykisk ohälsa. Vi antog också att högre grad av stress i föräldrarollen och försämrad livskvalitet orsakat av ångest- och tvångssymtom skulle medieras av psykologisk flexibilitet och upplevt socialt stöd. Psykologisk flexibilitet visade sig bidra mest till effekten av tvångs- och ångestsymtom på föräldrastress och livskvalitet. Resultaten pekar i riktning mot att insatser som syftar till ökad psykologisk flexibilitet kan bidra till att sänka den upplevda stressen i föräldrarollen och höja livskvalitet hos nyförlösta kvinnor med hög ångest och tvångsrelaterade symtom.

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Introduction

> "Shattered. Broken. Lost.
>
> That's how I felt, that's what I had become. Postpartum depression wasn't just being sad. The anxiety I developed didn't revolve around small fears. OCD didn't present itself in a funny way. It was raw, all of it.
>
> The overwhelming sadness I felt took my breath away. At times I thought I would never be able to inhale deeply again. The anxiety was crippling. Small fears I had never even recognized suddenly became unscalable mountains. The obsessiveness attached to my fears was beyond my control. I couldn't stop the thoughts. My need to obsess over the thoughts and search for meaning behind them became automatic and unrelenting."

These are the words of Chelsea Elker, a mother of three, who is suffering from postpartum depression, anxiety and obsessive-compulsive disorder (OCD), sharing her innermost thoughts and fears on her blog (http://delicatechange.blogspot.se/). Becoming a parent can be an overwhelming experience for anyone, and in particular for women the perinatal period can be a major stressful life event (Goldberg, 2010). The joy of welcoming a child can be accompanied by pregnancy and birth-related changes to the mother's body, recurrent pain (e.g., back, abdominal, breast, and headache), urinary and bowel complications, hormonal disorders, and sleep difficulties that can negatively affect mental health, parenting behaviors/confidence, and quality of life (Pope, Oinonen, Mazmanian & Stone, 2017; Harland, Saftlas, Yankowitz & Peek-Asa, 2014; Whitaker, Young-Hyman, Vernon & Wilcox, 2014; Lavender, 2005). Furthermore, the well-being of mothers of newborn babies can be negatively affected by frequent worries about finances, physical appearance, sexual adjustment, how they will be able to care for their child (and family), and their newborn child's well-being (Wenzel, Haugen, Jackson & Brendle, 2005; Wenzel, 2011). Childbirth is a complex life event that can give rise to both positive and negative emotions and is now recognized as a significant period of risk for the development of mental health difficulties (Vesga-Lopez, Blanco, Keyes et al., 2008).

Maternal worries (and sometimes even obsessions) about the welfare of the baby are considered normal. However, for women with an anxiety disorder or OCD, these otherwise

normal worries/obsessions can take on an excessive and uncontrollable quality, causing the mother significant distress, impairing her everyday functioning, and leading to further worries about being labelled a bad or unfit mother. Such fears can make it very difficult for a mother to disclose to a healthcare professional the presence or frequency of worries, obsessions or compulsions related to the safety of her baby, reducing the likelihood that she will receive the support she may need (Bayrampour, McNeil, Benzies, Salomon, Gelb & Tough, 2017).

There has been a substantial amount of research aimed to answer questions about depression during the perinatal period i.e. pregnancy and the first postpartum year (Godfrey, 2005; Logsdon, Wisner & Pinto-Foltz, 2006; Qobadi, Collier & Zhang, 2016). However, considerably less research is available when it comes to anxiety disorders and OCD associated with pregnancy and childbirth, which is unfortunate since the prevalence of postpartum anxiety disorders is as common as postpartum depression. Further, recent studies suggest that the risk of developing OCD is between four to five times higher during the post-partum period compared to the normal risk (Miller, Chu, Gollan & Gossett, 2013; Miller, Hoxha, Wisner & Gossett, 2015). In a recently published report from the Swedish National Board of Health and Welfare (Socialstyrelsen), Swedish mid-wives pointed out challenges in identifying, assessing, and managing mental health issues in postpartum mothers (Socialstyrelsen, 2017). Mid-wives as well as healthcare administrators appealed for the need to raise the level of awareness of mental health issues in the postpartum period and pointed out that “validated tools for assessing mental illness is missing” (Socialstyrelsen, 2017).

Postpartum mental health problems

Postpartum anxiety disorders. Examples of anxiety disorders are generalized anxiety disorder (GAD), posttraumatic stress disorder (PTSD), social anxiety disorder (SAD), and different phobias (American Psychiatric Association, 2013). Anxiety disorders are among the most prevalent psychiatric conditions with lifetime prevalence rates of up to 33.7% (Bandelow, 2015). Among mothers who recently has given birth, the point prevalence of anxiety disorders is believed to be high, ranging from 4 to 39 % in different studies (Goodman, Watson & Stubbs, 2016). The risk of onset or of OCD in the postpartum period is multiplied, affecting up to 9%, in comparison to the prevalence of the general population which is estimated to 2-3% (Goodman et al., 2016).

Perinatal maternal anxiety is associated with a number of negative side effects

including somatic problems (such as high cortisol levels stemming from an over activation of the HPA-axis, increasing the risk of weakening the immune system; Glover, Bergman, Sarkar & O'Connor, 2009) as well as other psychiatric problems, i.e. postpartum depression (Heron, O'Connor, Evans, Golding & Glover, 2004; Miller, Pallant & Negri, 2006). It can be difficult to diagnose anxiety disorders, because they are often overshadowed by depressive symptoms or the presence of depression, and therefore remain undetected (Matthey, Barnett, Howie & Kavanagh 2003; Austin et al., 2010). Untreated anxiety disorders also increase the risk for long-term negative consequences for mother and child, including insecure attachment (Glasheen, Richardson & Fabio, 2010; Glover, 2014). Hence, maternal depressive symptoms as well as anxious symptomatology puts the mother–infant bond at risk (Tietz, Zietlow & Reck, 2014). This is supported by Kurtz, Levine & Safyer, 2017, who summarize that postpartum maternal anxiety and depression "are a significant source of toxic stress for young children and can disrupt developing brain architecture resulting in long-lasting deleterious effects" (Kurtz et al., 2017).

Postpartum Depression. Depression is a leading cause of disease-related morbidity among women (Kessler et al., 2003). Postpartum depression starts within the first weeks after delivery (American Psychiatric Association, 2013). Inability to sleep, mood swings, excessive worries about the baby, feelings of guilt, hopelessness, helplessness, and recurrent thoughts of death including suicidal ideation are the clinical manifestations of postpartum depression (American Psychiatric Association, 2013; Norhayati, Hazlina, Asrenee & Wan Emilin, 2015). Although it is considered that postpartum depression often has a relatively early onset in the postpartum period, onset can be extended to up to 12 months after delivery (Gavin et al., 2005). Other aspects of mood disturbances postpartum is the "baby blues", affecting up to 80% of women following delivery (Buttner O'Hara & Watson, 2012; O'Hara & McCabe, 2013) which peaks soon after giving birth and resolves within a couple of weeks. Rarer is postpartum psychosis with a prevalence of 0,1-0,2% but when it occurs it is an acute condition with severe risks for both mother and child including infanticide and suicide (Spinelli, 2009).

Postpartum OCD. OCD is one of the most common mental disorders in the perinatal period (Abramowitz, Schwartz & Moore 2003; Ross and McLean, 2006). When OC symptoms develop, they have a high likelihood of persisting for at least 6 months (Miller et al., 2013). Women with postpartum depression are more likely to experience comorbid

obsessive-compulsive symptoms in the immediate postpartum period (Miller et al., 2015).

OCD is characterized by obsessions and associated mental or behavioral compulsions. Whereas the majority of the general population can experience intrusive or obsessional thoughts (e.g. Rachman & De Silva, 1978, Radomsky Alcolado, Abramowitz et al., 2014), an individual with OCD engage in time-consuming compulsive behaviors to relieve obsessive distress (Clark, Abramowitz, Alcolado et al., 2014; American Psychiatric Association, 2013).

The content of obsessional thoughts can be derived into six different categories. Abramowitz and Jacoby (2015) makes the following distinctions of different types of obsessional thoughts: (a) contamination, (b) responsibility for harm, (c) sex and morality, (d) violence, (e) religion, and (f) symmetry and order (Abramowitz & Jacoby, 2015). The sufferer often sees the obsessional content as exaggerated or unreasonable, however, the urge to perform the compulsions is hard to resist. Thus, it is extremely important, when clinically assessing a mother who is expressing thoughts of harm, e.g. potential threats of violence or thoughts about sexually abusing her infant, to investigate whether these thoughts are ego-dystonic or not. There are reports of mothers who have been involuntarily hospitalized after revealing intrusive thoughts and therefore being deemed as a threat to the child (e.g. Christian & Storch, 2009).

Intrusive thoughts. Intrusive thoughts are a key feature of OCD but are also common in depression and anxiety disorders (Lawrence, Kempton, Stewart, Stein & Graske, 2017). Many postpartum mothers suffer from intrusive thoughts related to deliberately harming their children (Abramowitz, Khandker, Nelson, Deacon & Rygwall, 2006; Lawrence et al., 2017). Other common intrusive thoughts concern accidents, sudden infant death, or sexual thoughts about the baby.

The vast majority of people is from time to time affected by unwanted intrusive thoughts. In 1978 Rachman and De Silva conducted a study that showed that 79,8% of the general population experienced obsessive intrusions. In a more recent study (Radomsky et al., 2014) showed that 94% of the worldwide population from time to time have intrusive thoughts. Rachman and De Silva made the distinction between normal and abnormal obsessions by differences in frequency, duration, intensity, and urge to neutralize. Pre-existing beliefs about the need to control unacceptable intrusive thoughts, and that intrusive thoughts can be an indication that they might be responsible for harm to others, the intrusions can escalate in both frequency and severity and become clinical obsessions (Clark et al., 2014).

Depressive symptoms and symptoms of anxiety, alone or together with intrusive thoughts, may become a state that persists and develops into something that meets the criteria for a clinical diagnosis, such as depression, GAD, or OCD. In sum, intrusive thoughts, compulsions, and anxiety are common in postpartum women. Hence, it is as important to assess anxiety and obsessive-compulsive symptoms as it is to investigate depressive symptoms in mothers to newborns (Abramowitz, Meltzer-Brody, Leserman et al., 2010).

Parenting stress. Experiencing stress as a parent can give rise to a variety of symptoms, such as depression, anxiety, feeling of insecurity, which in turn can affect psychological health (Sultan, Leclair, Rondeau, Burns & Abate, 2016). Parenting stress is believed to be generated by imbalances between the perceived demands of parenting and the resources to meet those demands (Loyd & Abidin, 1985). Parenting stress affects both mothers and fathers, but mothers are at a higher risk of developing secondary anxiety and depression with detrimental effects in the long term (Sultan et al, 2015).

Parenting stress is often associated with a parent's response to the child being somatically ill, e.g. cancer (Sultan et al., 2015) and diabetes (Nieuwesteeg, Hartman, Emons, Pouwer, van Bakel Aanstoot & van Mil, 2017) or child behavior problems caused by developmental disabilities such as ADHD or autism (McStay, Tembath & Dissanayake, 2014; Sanner & Neece, 2017). In this sense parental stress is something that evolves from child behavior or functioning. Parenting stress is elevated in mothers of very premature children (Meijssen, Wolf, Koldewijn et al., 2011) and Tiemeier, Wolf, Darlington et al. (2010) show that parenting stress is strongly related to child somatic complaints at 18 months. Parental stress can also be evoked from a stressful life transition, such as giving birth, as suggested by Thomason, Volling, Flynn et al., (2014). There are likely other important factors, such as social support, that may mediate the relationships between parental distress and maternal mental health problems. It is known that depression and parenting stress are related, but the question has been which comes first. Does parenting stress lead to depression or does parental stress occur as a result of depression? In a longitudinal study over 14 months postpartum performed by Thomason et al. (2014), the directionality of parenting stress and depression was investigated. The study found that earlier parenting stress predicted depressive symptoms suggesting that stress activates depression (Thomason et al., 2014).

Perceived Social Support. The role of social support has been defined as both a coping resource and a potential buffer of stressful life events (such as a transition into

motherhood) and/or directly related to the reported severity of psychological and physical symptoms (Zimet, Dalhem, Zimet & Farley, 1988). As described by Shumaker and Brownell (1984), social support is "an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient". Lin (1986) defines social support as "perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners". Perceived social support includes different functions, e.g. emotional support and instrumental support, and is set in different contexts or networks, where partners and close family tend to be most important and give the greatest contribution in chronic disease (Ekbäck, Lindberg, Benzein & Årestedt, 2013). However, there are cultural differences. Asian young females get the most perceived social support from friends, and young Arabian Americans perceived the highest social support from their family (Ramaswamy, Aroian & Templin, 2009).

Health-related Quality of Life. The World Health Organization (WHO) describes quality of life (QoL) as "the individual's perception of their life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns" (WHOQoL Group 1994; 1995). In this sense QoL is one of the most important qualities of existence along with life satisfaction and wellbeing.

There is little research conducted on postpartum health-related quality of life in general. However, there are studies about postpartum QoL and type of delivery (Sadat, Taebi, Saberi & Kalarhouidi, 2013; Triviño-Juárez et al., 2017), life satisfaction in postpartum women with epilepsy (Reiter, Björk, Daltvei et al., 2017) and obesity (Sahrakorpi et al., 2017). When described as an outcome parameter in studies with postpartum populations the SF-36 and SF-12 of the Medical Outcomes Study (MOS) is the two most frequently used measures of HRQoL, followed by the World Health Organization's Quality of Life Scale-BREF (WHOQoL-BREF) (Mogos, August, Salinas-Miranda, Sultan & Salihu, 2013).

Psychological flexibility. In the clinical model of ACT, psychological inflexibility is crucial to how human suffering can develop and worsen. Psychological inflexibility is proposed to consist of two interconnected processes; cognitive fusion and experiential avoidance (Greco, Lambert, & Baer, 2008). Cognitive fusion is the process in where behaviors is influenced and controlled by thoughts; people do not get in touch with the direct consequences of their behavior when the thoughts are perceived as literal truths limiting other possible regulation of behavior. Cognitive fusion also relates to difficulties to look at thoughts

from other perspectives, emotional responses to thought content, strong faith in the literal truth of thought, and trying to control thoughts. The opposite, cognitive defusion, opens for more options for action through active choices (Gillanders, Bolderston, Bond et al., 2014).

Experiential avoidance includes attempts to hold certain thoughts, memories, feelings and physical sensations at a distance, thereby avoiding the experience of these. It may be about behaviors that aim to reduce the frequency of or changing the shape for aversive experiences and the context in which they occur (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). A significant part of psychopathological symptoms has in common that experiential avoidance is included as an important factor in emergence and maintenance (Hayes et al., 1996). A central goal of ACT treatment is to increase psychological flexibility and to enable the individual to live a life according to personal values no matter what feelings or thoughts that may occur (Greco et al., 2008).

Preliminary reports from an ACT-based group intervention at a perinatal psychiatry inpatient unit states that ACT appears to be a particularly relevant treatment option for perinatal depression and anxiety (Bonacquisti, Cohen & Edler Schiller, 2017). There is also consistent and convincing evidence of the use of ACT in the treatment of unwanted intrusive thoughts (Russell Fawcett & Mazmanian, 2013). ACT promotes cognitive defusion techniques, often linked to exposure and response prevention (Twohig, Hayes & Masuda, 2006). As such, ACT is an intervention that is uniquely ready to treat intrusive thoughts on its own and within the framework of postpartum OCD also by introducing exposure therapy into the ACT-model (Twohig, Abramowitz, Bluett et al., 2015). Using proper preventive components is crucial since anxiety is treated with exposure to fears and depression with interpersonal therapy and behavioral activation (Abramowitz et al., 2010).

Research questions and aim with study

The postpartum period is a time in life where women are at greater risk of developing mental health problems such as depression, anxiety, and OCD. However, postpartum emotional disorders are understudied and poorly understood, especially anxiety disorders and OCD. Therefore, the present study aims to explore the presence of anxiety and postpartum related OC symptoms in a large sample of postpartum women. We will also explore how anxiety and OC symptoms relate to quality of life and parental stress.

It is hypothesized that: 1) symptoms of anxiety in general, and postpartum-related obsessions and compulsions in particular, will be common in a postpartum population of

Swedish women; 2) clinical levels of anxiety and OCD will be rare: but 3) more common in women with a history of mental health problems; and 4) among women who experienced physical and psychological problems during pregnancy and childbirth; and 5) anxiety and OC symptoms will be related to parental stress and health-related quality of life over and beyond depressive symptoms; and 6) relationships between anxiety and OC symptoms and quality of life and parenting stress will be mediated by social support and psychological flexibility. In the absence of studies that have assessed the relationship between the frequency and impairment of anxiety, OC symptoms, social support and psychological flexibility in postpartum mothers, preliminary exploratory analyses of mediation will be undertaken.

Methods

Design and Participant Recruitment

The study was designed as a cross-sectional survey of mothers who had delivered a child during the past 12 months. The survey itself included 157 items, a mixture of closed-ended questions about sociodemographic background and clinical history, and standardized measures of anxiety, depression, OCD, parenting distress, perceived social support, psychological flexibility, and health related quality of life. Mothers were recruited through a closed Swedish Facebook group called "Gravida med BF 2017" (Pregnant with estimated delivery 2017). The group was set up by a private, non-commercial initiative as a way to provide helpful information and to allow expecting mothers to ask questions and support each other. Membership was gained only by contacting the administrator of the group. Private profiles, recently registered accounts, and non-feminine names were all prohibited to be a part of the group. No partners or other genders were allowed in the group. Only individuals who were carrying a baby was allowed membership. At the time of the survey, the group had approximately 9000 members, consisting solely of women who were carrying and/or had delivered a child with estimated birth during 2017. In a comparison there are approximately 115000 children born in Sweden every year.

The survey was distributed via posts on the main page for the group. The group administrator posted the survey on the 13th, 25th, and 30th of October 2017. Specifically, the posts included advertisement for the study that informed potential participants of: 1) the purpose of the survey and how the results would be communicated; 2) the estimated time needed to complete the survey (approximately 20 minutes); 3) that participation was

anonymous and only for people in the group and not to be shared with others; 4) email address to the investigator in case there were questions; and 5) a link to the survey. Upon clicking the link in the advertisement, potential participants were again informed of the purpose of the study, that it was anonymous, the nature of the questions, that they could terminate their participation at any time, and an email address to the investigator if they had any questions. The participant then had to acknowledge that she understood the purpose of the study and agree to participate (give informed consent) before she was directed to the survey questions. Only data from mothers who gave their informed consent and completed the survey were used in the present thesis.

Measures

Sociodemographic Questions. To collect background information, the participants were asked about age, number of children, and the age of the youngest child. Furthermore, participants were asked to declare household net income, educational level, and if they were born in Sweden. Data on any complications with the mother or the child during pregnancy, if the child was born premature, and number of weeks of premature birth were also collected. Finally, the participants were asked to state the type of delivery and if there were any complications for mother or child during delivery.

Assessment of Psychiatric History. To assess history of mental health problems, participants were asked to share if they had a previous psychiatric diagnosis. The options were 1) anxiety (including phobias, social anxiety, panic disorder, posttraumatic stress disorder and generalized anxiety disorder), 2) depression (including major depression, pre-menstrual dysphoric disorder and severe bereavement disorder), 3) OCD and related disorders (including obsessive-compulsive disorder, tic disorder, Tourette's syndrome, trichotillomania, skin picking disorder, and body dysmorphic disorder**)** and 4) other, not specified psychiatric problems or diagnoses. Participants were able to choose "yes", "no", or "not certain" and if they didn't want to share the information they could state "not applicable". Further, participants were asked if they had current symptoms within the above categories. History of treatment was assessed by asking if participants had received treatment for their symptoms, e.g. psychological treatment or medication. Finally, participants were asked if they were receiving current treatment.

Hospital Anxiety and Depression Scale (HADS). HADS is a self-report measure of anxiety and depression (Zigmond & Snaith, 1983). It was originally developed for use in

general medical outpatient clinics but is now used in both clinical practice and research, validated in many languages and commonly used internationally. The HADS is comprised of two subscales: depression (HADS-D) and anxiety (HADS-A), which are moderately correlated. Each subscale includes 7 items. There are no generally accepted cut-off scores for the different sub-scales. However, Crawford, Crawford, Henry, Crombie & Taylor (2001) and Herrmann (1997) suggest the following cut-off scores for each subscale: 8 or more for mild levels of anxiety or depression, and 11 or more for moderate levels. Optimal balance between sensitivity and specificity for HADS as a screening instrument was achieved most frequently at a cut-off score of 8+ for both HADS-A and HADS-D giving sensitivities and specificities for both subscales of approximately .80 (Bjelland, Dahl, Haug & Neckelmann, 2002). The HADS has good psychometric properties, with Cronbach alphas values for HADS-A within the range of 0.68 and 0.93 with a mean of .83, and for HADS-D a range between .67 and .90 with a mean of .82 (Bjelland et al.,2002). The Cronbach obtained in this study was .86 for HADS-A and 0.83 for HADS-D.

Obsessive–Compulsive Inventory-Revised (OCI-R). OCI-R is an 18-item self-report measure that assess obsessions and compulsions (Foa, Huppert, Leiberg et al., 2002). A cut-off score of 21 is optimal for distinguishing between individuals with clinical obsessions and/or compulsions and non-patients (Foa et al., 2002), indicating that individuals with a score of 21 or higher experience moderate to severe OC-symptoms. The Cronbach alpha for the OCI-R is between .83 and .90. Discriminant validity has been established with measures of anxiety and depression (Foa et al., 2002) and it has acceptable test-retest reliability in non-clinical samples (Hajcak, Huppert, Simons & Foa, 2004). The Cronbach alpha in the present study $\alpha = .90$.

Parental Thoughts and Behaviors Checklist (PTBC). The PTBC was developed as a semi-structured interview to evaluate the content of postpartum intrusive thoughts and neutralizing strategies (Abramowitz et al., 2006). The checklist contains of 32 postpartum intrusive thoughts with the response format 1 = yes, 2 = no and 3 = before, followed by 14 behavioral and mental strategies that parents may engage in to neutralize intrusive thoughts, with the same response format as the thoughts inventory. After each section, the severity of thoughts and behaviors respectively was assessed with a severity scale with a Likert scale response format ranging from 0 = none to 4 = extreme, e.g. “How much distress do these senseless and unwanted thoughts cause you?” Participants were asked to consider the last

week when choosing the answer. Scores on the interview version of the PTBC correlate with scores on self-report measures of OCD and have been found to be related to diagnostic status as assessed by standardized diagnostic interview (Abramowitz et al. 2006). However, the instrument has not been validated as a self-reported measurement of postpartum obsessive-compulsive symptoms.

For the purposes of the present study, a Swedish-language self-report version of the PTBC was created with permission of the original author of the PTBC, Professor Jonathan Abramowitz. First, the interview items were reproduced into a questionnaire format with no changes made to their content or scoring. Next, the self-report version of the PTBC was translated from English into Swedish following the recommendations of the World Health Organization (WHO, http://www.who.int/substance_abuse/research_tools/translation/en/) for translating and adapting health-related measures.

In brief, the measure was first translated from English into Swedish by a clinical psychologist who has knowledge about OCD and is fluent in both languages and who has previously translated health-related measures from English to Swedish. Next, a second person, working independently, and fluent in Swedish and English, back-translated the Swedish version to English. This back-translation was then compared to the English language original by the investigator and his two supervisors, and further minor modifications were made to the Swedish version for clarity and grammar. This final Swedish language version draft of the scale was then administered to several native Swedish-speaking women (friends of the investigator) who were asked to comment on the items for readability and clarity. No further changes were required. The English back-translation of this final Swedish version was then provided to professor Abramowitz, who approved it. Analysis of the internal reliability coefficients (Cronbach alphas) for the total and subscale scores on this Swedish self-report version of the PTBC were in the acceptable range: thoughts checklist (α = .82-.83), behaviors checklist (α = .69-.73), severity scales α = .88 for obsessions and α = .90 for compulsions.

Multidimensional Scale of Perceived Social Support (MSPSS). MSPSS, developed by Zimet, Dalhem & Farley (1988), is a 12-item measure of social support. It includes 12 items which cover three dimensions: family, friends and significant others (e.g., I get the emotional help and support I need from my family). Each item is rated on a seven-point scale (1 = very strongly disagree to 7 = very strongly agree). Higher values indicate a higher level of perceived social support. The Swedish version of the MSPSS, validated by Ekbäck et al.

(2013), was used in this survey and has been found to have good psychometric properties with high internal consistency (α = .91 to .95). In this study, the Cronbach's alpha values were similarly high (α = .93 and .94). Test-retest reliability in terms of reproducibility was satisfactory for both items and scales (Ekbäck et al., 2013).

Parenting Distress Subscale (PDS) of the Nijmegen Parenting Stress Index (NPSI). Parenting-related stress was measured using the 11-item Parenting Distress Subscale (PDS) of the 123-item Dutch version (NPSI; De Brock, Vermulst & Abadin., 1992) of Abidin's (1983) English Parenting Stress Index. The Parenting Stress Index aims at identifying stress and distress early so that interventions can take place to reduce the frequency and intensity of behavioral and emotional disturbance among children in society (Abidin, 1995). This is done by examining a) stress related to the parental role; b) stress related to the child (e.g. child behavior, difficult child) and c) stress related to the parent-child interaction. Each of the 11 items on the PDS are scored on a five-point scale (1 = totally disagree to 5 = totally agree), with higher scores indicating higher perceived parental stress (e.g., Being a parent to this child is harder than I thought). The items capture four domains: competence, attachment, depression and health. This measure was also translated to Swedish according the WHO guidelines for translating and adapting health-related measures and procedures following the translation of the PTBC. The original Dutch version has been shown to have good internal reliability (α= .92-.95). The Cronbach's alpha reliability for this study was in the range between .90 and .91.

Short-Form 12-Item Health Survey (SF-12). Health-related quality of life was measured using the validated Swedish version of the 12-item version of the SF-36 Health Survey (Sullivan, Karlsson & Taft, 1997). The 12 items assess two areas of functioning (mental and physical) and involve a mixture of categorical questions (e.g., yes/no) and Likert-response formats that assess limitations in functioning and overall health. Subscale scores are obtained for: 1) the Mental Component Scale (MCS-12) that assesses the domains of vitality, social functioning, role-emotional and mental health; and 2) the Physical Component Scale (PCS-12) that assesses the domains of physical functioning, role-physical, bodily pain, and general health. The scale also includes a total score reflecting overall, health-related quality of life. Consistent with recommended scoring procedures, subscales and total scores are transformed to standardized scores assuming a mean of 50 and standard deviation of 10 in the original survey of American medical patients (Sanda, Way, & Litwin, 2002). Means and

standard deviations can diverge across settings, populations and contexts (i.e. Melville et al., 2003). In the present study, the means and standard deviations were 43.7 (5.38) for the PCS-12 and 45.51 (7.33) for the MCS-12. The Swedish version used in this study has been shown to have acceptable psychometric properties (Sullivan et al., 1997) with internal consistency coefficients in the range of alpha .68 to .94 (Gandek, Ware, Aaronson et al., 2002). Cronbach's alpha in the present study were in the good range (α = .84 to .87).

Acceptance and Action Questionnaire (AAQ-II). The AAQ-II (Bond, Hayes, Baer et al., 2011) is a 7-item measure of psychological flexibility and experiential avoidance (e.g., I'm afraid of my feelings). Each item is scored on a 7-point scale ranging from 1 = never true to 7 = always true. A higher total score indicates lower psychological flexibility. The Swedish version of the AAQ-II used in the present study has been found to have acceptable psychometric properties including high levels of internal consistency (α = 0.84; Lundgren & Parling, 2017). In the present study, the AAQ-II showed similarly high levels of internal consistency (α = 0.92.). Test-retest reliability is very acceptable (Bond et al., 2011).

Design and data analysis

All statistical analyses were carried out in IBM SPSS Statistics version 24. Preliminary analyses of mediation were carried out using the PROCESS macro (Version 3.0; Hayes, 2012) for SPSS. Prior to undertaking analyses to address the study hypotheses, the SPSS Frequencies procedure was used to: 1) identify any invalid (out-of-range) values for individual items so that these could be recoded to missing values; 2) examine the distributions for the total and subscale scores on the standardized measures by inspecting the mean, standard deviation, skew and kurtosis, histograms and Q-Q plots of the various measures. It is argued that: 1) data should only be transformed to normal or nonparametric statistics when the observed data departs substantially from normal, as transforming the data can lead to the loss of important information and unrepresentative parameter estimates; and 2) in large sample sizes (n > 100), standard parametric tests (e.g., t-test, correlations, linear regression) are very robust with respect to deviations from the assumptions of normality and homogeneity of variances (homoscedacity) and tend to generate stable/valid parameter estimates (Kim, 2012). In the present sample the primary independent and dependent variables were the total scores on the standardized measures, and these were approximately normal in their distribution. Hence, no transformations of the data were undertaken, and parametric statistics were used for

all analyses. There were only 3 (from 3 different individuals) missing values in the dataset. Missing values were handled by manually imputing the mean score of the participants other scores on the measured scale. Some missing data were reported due to technical circumstances: for those who reported a history of mental health issues, the sequential question “Do you currently receive treatment due to this problem”, were missing. This affected three categories; current OCD treatment, current depression treatment and current treatment for any other psychiatric problem. Fortunately, this technical menace was detected relatively early in the process, so that we were able to correct the content of the survey. Complete demographic data on all history and current mental illness and treatment were obtained from 237 participants.

Ethical considerations

Ethical approval of the study was obtained by the local ethics committee at the Department of Psychology, Lund University. All participants were informed about the purpose and design of the study and that participation was voluntary. Regarding potential triggers to emotional distress, participants were informed that some of the content in the survey could be perceived as disturbing, and that they could withdraw at any point. To complete the survey, participants had to read about the purposes of the study and give informed consent. No personal data were collected, participation was fully anonymous, and all information collected was treated as confidential. Only the investigator had access to the collected data, which further ensured participants confidentiality. Participants were free to withdraw at any point.

Results

Sample characteristics

The sample consisted of 420 participants, all women who had given birth in the last 12 months. Mean age of mothers were 28.2 years (*SD* = 4.7) with a range between 17 and 45 years. Mean age of youngest child was 4.5 months (SD = 2.6). A majority reported being mother to one child (Table 1) with the range being 1 to 5 children. Based on household net income, most of the participants were in the low middle or the middle segment and the participants were also to a large proportion highly educated: 93% reported completed secondary school or higher education. Most prevalent type of birth was vaginal delivery followed by caesarian delivery by urgency. Many participants reported complications during pregnancy and delivery (these complications were not specified).

Table 1

Demographic characteristics proportions (%)

Variable		N (%)
Women		420 (100%)
Number of children	*1*	*275 (65.5%)*
	2	*108 (25.7%)*
	>=3	*37 (8.8%)*
Born in Sweden		395 (94%)
Income	*Low*	*24 (5.7%)*
	Lower middle	*181 (43.1%)*
	Middle	*159 (37.9%)*
	High	*43 (10.2%)*
	Very high income	*13 (3.1%)*
Type of delivery	*Vaginal*	*346 (82.4%)*
	Caesarian by request	*16 (3.8%)*
	Caesarian by urgency	*58 (13.8%)*
Premature birth	*1-4 weeks*	*74 (17.6%)*
	5-8 weeks	*11 (2.6%)*
	9-12 weeks	*3 (0.7%)*
	>12 weeks	*1 (0.2%)*
Complications during pregnancy		193 (46%)
Complications during delivery (mother)		135 (32.1%)
Complications during delivery (baby)		80 (19%)

Note. Income based on national average from Statistics Sweden (SCB), report on household incomes year 2016.

Rates and prevalence of mental health problems

When assessing current mental health problems, anxiety disorders was the most prominent problem reported followed by depression and other psychiatric problems (Table 2). OCD and related disorders was the least reported mental health problem. Comorbidity was reported to a certain extent, 48 (11.4%) of the participants experienced both depression and anxiety, 33 (7.9%) reported having problems with both anxiety disorders and other psychiatric issues. Participants reporting current OCD and related disorders reported high comorbidity: 7 (29%) indicated that they were depressed and 16 (66%) experienced problems with anxiety. To determine clinical levels of anxiety, depression and OCD, we used the current best estimate cut-off scores (Table 3). Independent sample T-tests were carried out to compare differences between participants with a history of mental health problems, (anxiety, OCD, depression, or other) on current levels of anxiety, depression and obsessive-compulsive symptoms (Table 4). There were significant differences between groups with medium to large effect sizes. There were no significant differences related to current psychiatric problems compared to income, age, the number of children or education.

Table 2

Proportions of participants reporting mental health problems and treatment N (%)

Variable	Diagnosis ever	Current	Treatment ever	Current
Anxiety	214 (51.0)	114 (27.1)	150 (35.7)	49 (11.7)
OCD and related	47 (11.2)	24 (5.7)	10 (2.4)	2 (0.5)*
Depression	176 (41.9)	63 (15)	142 (33.8)	23 (5.5)*
Other	102 (24.3)	39 (9.3)	68 (16.2)	7 (1.7)*
No diagnosis	155 (36.9)	276 (66)	-	-

Note. N = 420 *N = 237 Anxiety includes phobias, Social Anxiety Disorder, Generalized Anxiety Disorder and Post Traumatic Stress Disorder. OCD and related disorders includes Obsessive-Compulsive Disorder, Tics, Tourette syndrome, trichotillomania, skin picking disorder, and Body Dysmorphic Disorder. Depression includes major depression, Pre-Menstrual Dysphoric Disorder and Severe Bereavement Reaction. Treatment includes surgery, medication, talk therapy, or any other form of support from a health professional

Table 3

N=420 Proportion reported over best estimated clinical cut-off

Measure	Cut-off value	(%) proportion over clinical cut-off
OCI-R	21	14.80
PTBC	16	11.20
HADS-A	11	21.40
HADS-D	11	11.90

Note. OCI-R = Obsessive–Compulsive Inventory—Revised, HADS-A = Hospital Anxiety and Depression Scale (anxiety subscale), HADS-D (depression subscale), PTBC=Parental Thoughts and Behaviors Checklist. Using recommended cut-off values for assessing clinical levels of each measurement.

Table 4

Results of independent samples t-tests including obsessive-compulsive symptoms, symptoms of anxiety and depression and postpartum related obsessive-compulsive symptom by history of diagnosis.

Outcome	Groups by history of diagnosis						95% CI for mean difference				
	Yes			No							
	M	*SD*	*n*	*M*	*SD*	*n*	lower	upper	*t*	*df*	*d*
	Anxiety										
OCI-R	13.7	10.9	214	8.4	7.1	172	3.48	7.1	5.7***	368	.57
HADS-A	8.6	4.4	214	4.9	3.5	172	2.9	4.4	9.0***	383	.90
HADS-D	6.1	4.0	214	4.5	3.7	172	.39	.89	4.2***	376	.60
PTBC	8.6	6.5	214	4.7	4.7	172	.57	2.82	6.9***	380	.69
	Depression										
OCI-R	13.9	10.8	176	9.0	8.1	216	2.96	6.85	5.0***	318	.51
HADS-A	8.9	4.2	176	5.4	4.0	216	2.62	4.26	8.2***	365	.85
HADS-D	6.5	4.1	176	4.7	3.5	216	1.05	2.60	4.6***	347	.47
PTBC	8.5	6.2	176	5.3	5.5	216	.60	2.04	5.4***	356	.55
	OCD										
OCI-R	20.9	13.3	47	9.9	8.1	356	7.04	15.01	5.6***	51	.99
HADS-A	9.8	4.5	47	6.5	4.0	356	1.88	4.65	4.7***	56	.78
HADS-D	7.4	4.6	47	5.2	3.7	356	.85	3.64	3.2**	54	.55
PTBC	10.4	6.6	47	6.2	6.7	356	1.01	2.20	4.2***	55	.68
	Other										
OCI-R	15.6	12.4	102	9.5	8.1	279	3.53	8.77	4.6***	134	.58
HADS-A	8.6	4.9	102	6.2	4.0	279	1.38	3.52	4.5***	153	.54
HADS-D	6.4	4.2	102	5.0	3.7	279	.56	2.33	3.1**	165	.36
PTBC	9.0	7.0	102	5.6	5.3	279	1.82	4.87	4.3***	144	.54

Note. *** p < .001 ** p < .005. Equal variances not assumed. *d* = effect size measured by Cohen's d, OCI-R = Obsessive-compulsive inventory – revised, HADS-A = Hospital anxiety and depression scale, anxiety subscale, HADS-D, depression subscale. PTBC = Parental thoughts and behaviors checklist. N = 420.

To study the possible contribution of complications during pregnancy to mental health problems, we divided the group into those who had experienced complication during pregnancy (N=193) and those who had not (N=227). Independent samples t-tests were carried out for depression (HADS-D), anxiety (HADS-A), OCD (OCI-R), and postpartum OCD

(PTBC). There were significant differences in the postpartum OCD scores $t(418) = 2.2$, $p = .025$, $d = 0.23$), with women who had complications during pregnancy ($M = 7.6$, $SD = 6.3$) reporting higher scores than women without complications ($M = 6.2$, $SD = 5.8$). Complications for mother (N=135) and/or child (N=80) during delivery did not have any effect on symptoms of depression, anxiety or OCD. Mean scores on the health-related quality of life, mental as well as physical, is set to be 50 ($SD = 10$) in the general population, indicating that the postpartum women in this sample perceive slightly less satisfactory in quality of life in comparison to women in general (table 5). Mean value for perceived social support were high at the group level.

Postpartum obsessions and compulsions

All participants reported to have had at least one distressing intrusive thought about their infant at some point. Categories of intrusive thoughts are presented in table 6. A large proportion 126 (30%) of the participants reported moderate to severe distress in relation to intrusive thoughts. 44 (10.5%) reported moderate to severe levels of time having intrusive thoughts (e.g. 1 to 3 hours a day or more). To reduce discomfort, some got involved in neutralizing strategies. Moderate to severe levels of performing neutralizing strategies was reported from 32 (7.6%) of the participants (e.g. spending 1 to 3 hours a day on neutralizing strategies) and 38 (9%) reporting that the strategies interfered with their family life on a moderate to severe level.

Table 5

Means (M) and standard deviations (SD) (N = 420) for the self-report measures of OCD (OCI-R), anxiety and depression (HADS), parenting stress (NPSI), social support (MSPSS), psychological flexibility (AAQ-II), and health-related quality of life (SF-12).

Variable	Subscale	*M (SD)*
OCI-R		11.5 (9.87)
	Washing	1.48 (2.26)
	Checking	2.01 (2.23)
	Ordering	3.31 (2.62)
	Obsessing	1.74 (2.13)
	Hoarding	2.18 (2.37)
	Neutralizing	0.80 (1.72)
PTBC		6.90 (6.08)
HADS		12.6 (7.46)
	HADS-A	7.08 (4.42)
	HADS-D	5.51 (3.90)
NPSI		24.0 (9.80)
MSPSS		68.4 (14.9)
	Family	22.5 (6.14)
	Friends	20.7 (6.87)
	Significant others	25.2 (4.37)
AAQ - 2		18.8 (10.0)
SF-12 PCS		43.5 (5.38)
SF-12 MCS		45.5 (7.33)

Note. OCI-R = Obsessive–Compulsive Inventory—Revised, HADS = Hospital Anxiety and Depression Scale, NPSI = Parenting Distress Subscale (PDS) of the Nijmegen Parenting Stress Index, MSPSS = Multidimensional Scale of Perceived Social Support, AAQ = Acceptance and Action Questionnaire, Short-Form 12-Item Health Survey (SF-12) Physical Component Scale (PCS) and Mental Component Scale (MCS)

Table 6

Frequency and percent of N=420 participants reporting present intrusive thoughts and neutralizing responses on the PTBC

PTBC category and item	n (%)
Intrusive thoughts	
Suffocation/SIDS	265 (63%)
Accidents	149 (35%)
Intentional harm	41 (10%)
Losing the baby	108 (26%)
Illness	89 (21%)
Sexual	28 (7%)
Contamination	103 (25%)
Neutralizing strategy	
Self-reassurance	210 (50%)
Checking	332 (79%)
Seek social support	214 (51%)
Cognitive distraction	256 (61%)
Religious/prayer	43 (10%)
Behavioral distraction	135 (32%)
Avoidance	63 (15%)

Note. PTBC = postpartum thoughts and behaviors checklist. SIDS = sudden infant death syndrome

Correlation analyses. Correlation analyses were performed to examine relations between total scores on the measures of anxiety, depression and obsessive-compulsive symptoms and measures of parenting stress, psychological flexibility and health-related quality of life (Table 7).

Regression analyses. Multiple hierarchical regressions were carried out to explore the unique contribution of each symptom measure and perceived social support and psychological flexibility on quality of life and parental stress. Both depression and anxiety were

significantly contributing to parenting stress and decreased health-related quality of life (Table 8 and 9). Psychological flexibility significantly contributed to overall variance in both parenting stress and quality of life.

Mediation analyses. To examine psychological flexibility and perceived social support as putative mediators on the effect of parenting stress and health-related quality of life we performed an exploratory parallel multiple mediation analysis (Figure 1 to 4).

Parenting stress. Results indicated that anxiety was a significant contributor to low psychological flexibility, and that psychological flexibility was a significant contributor to parenting stress. These results support the hypothesis that psychological flexibility partially contributes to the effect of anxiety in parenting stress. The indirect effect was tested using a percentile bootstrap estimation approach with 10,000 samples. These results indicated that the indirect effect of psychological flexibility was significant and confidence intervals well above zero, a*b* = .80, (*CI* = .613, .986). The indirect effect of psychological flexibility contributed significantly on OC-symptoms in parenting stress, a*b* = .35, (*CI* = .271, .432). When bootstrapping the partial mediation of both anxiety and OC-symptoms by perceived social support in parenting stress, the effect was no longer significant since confidence intervals were not different from zero.

Participants with low psychological flexibility reported higher levels of parenting stress, indicating that lower levels of psychological flexibility partially mediate the effect of anxiety and OC-symptoms in elevated levels of parenting stress.

Perceived social support strongly correlates to anxiety as well as OC-symptoms, but do not contribute to the effect on parenting stress.

Health-related quality of life. Psychological flexibility was found to be a significant contributor of anxiety on quality of life, as hypothesized. The indirect effect was tested using a bootstrap estimation approach with 10,000 samples, and was found to be significant, a*b* = -.178, (*CI* = -.244, -.124.)

The analysis also supported the hypothesis that perceived social support contributed to the effect of anxiety on quality of life. The indirect effect was small but significant a*b* = .063 (*CI* = -.026, -.009), meaning that the effect of anxiety through psychological inflexibility negatively affects quality of life.

Psychological flexibility as well as perceived social support both contributed to OC-symptoms on quality of life. The indirect effect of obsessive-compulsive symptoms mediated

by psychological flexibility was *ab* = -.11, (*CI* = -218, -152) suggesting that participants with lower psychological flexibility reports lower quality of life due to OC-symptoms.

OC-symptoms mediated by perceived social support contributed with an indirect effect of *ab* = .026, (CI = .028, .067) indicating a small positive effect.

Table 7

Pairwise Pearson correlation coefficients between total scores on the measures of health-related quality of life, physical and mental component scales, parental distress, perceived social support, acceptance and action, obsessive-compulsive symptoms and symptoms of depression and anxiety.

Variable	1	2	3	4	5	6	7	8
1. SF12 (PCS)	1							
2. SF12 (MCS)	-.457**	1						
3. NPSI	.120**	-.402**	1					
4. MSPSS	-.108**	.265**	-.397**	1				
5. AAQ-2	.181**	-.474**	.675**	-.540**	1			
6. OCI-R	.081**	-.303**	.436**	-.359**	.572**	1		
7. HADS-A	.151**	-.460**	.589**	-.442**	.712**	.652**	1	
8. HADS-D	.173**	-.507**	.603**	-.502**	.587**	.466**	.881**	1

Note. N = 420 ** = Correlation is significant at the 0.01 level (2-tailed). SF12 = Short-Form 12-Item Health Survey (SF-12) Physical Component Scale (PCS) and Mental Component Scale (MCS), NPSI = Parenting Distress Subscale (PDS) of the Nijmegen Parenting Stress Index, MSPSS = Multidimensional Scale of Perceived Social Support, AAQ-2 = Acceptance and Action Questionnaire OCI-R = Obsessive–Compulsive Inventory—Revised, HADS-A = Hospital Anxiety and Depression Scale - anxiety subscale, HADS-D = Hospital Anxiety and Depression Scale – depression subscale

Table 8

Results of hierarchical multiple regression analysis showing contributions of depression, anxiety, obsessive-compulsive symptoms, perceived social support and psychological flexibility to explained variance in parenting stress

	Model 1			Model 2			Model 3			Model 4			Model 5		
Independent variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
HADS-D	1.512	.098	.603***	.975	.115	.389***	.963	.116	.384***	.908	.122	.362***	.740	.115	.295***
HADS-A				.788	.101	.355***	.734	.119	.331***	.711	.120	.320***	.282	.122	.127*
OCI-R							.041	.048	,042	.037	.048	.037	-.026	.045	-.026
MSPSS										-.040	.028	-.061	.026	.027	.040
AAQ-2													.438	.052	.448***
R^2 *change*		.363			.080			.001			.003			.081	
F for change in R^2		238.392***			60.273***			.733			1.990			71.047***	

Note * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9

Results of hierarchical multiple regression analysis showing contributions of depression, anxiety, obsessive-compulsive symptoms, perceived social support and psychological flexibility to explained variance in in health-related quality of life (mental component scale, MCS)

	Model 1			Model 2			Model 3			Model 4			Model 5		
Independent variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
HADS-D	-.986	.082	-.507***	-.718	.100	-.370***	-.726	.101	-.374***	-.745	.107	-.383***	-.676	.107	-.348***
HADS-A				-.392	.089	-.228***	-.427	.104	-.249***	-.435	.105	-.253***	-.259	.114	-.151***
OCI-R							.027	.042	,035	.025	.042	.033	.051	.042	.066
MSPSS										-.013	.025	-.026	-.040	.026	-.079
AAQ-2													-.179	.048	-.237***
R^2 *change*		.257			.038			.001			.000			.024	
F for change in R^2		144.463***			22.234***			.555			.382			14.482***	

Note * $p < .05$. ** $p < .01$. *** $p < .001$.

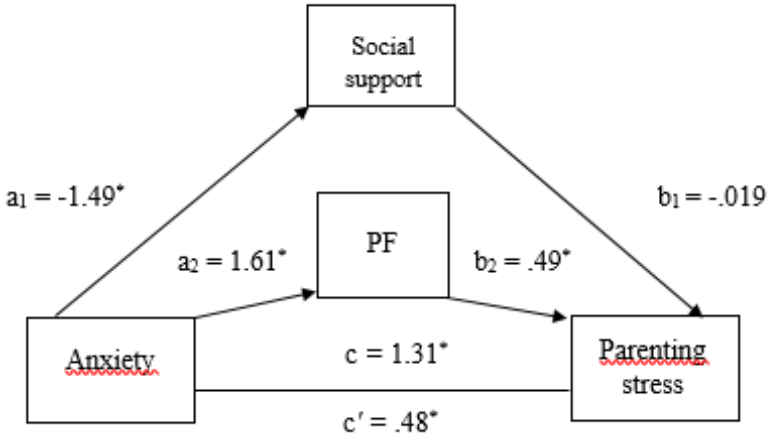

Figure 1

*Path coefficients for the relationship between the independent variable (anxiety), possible mediators (psychological flexibility and perceived social support) and dependent variable (parenting stress). * p < .001*

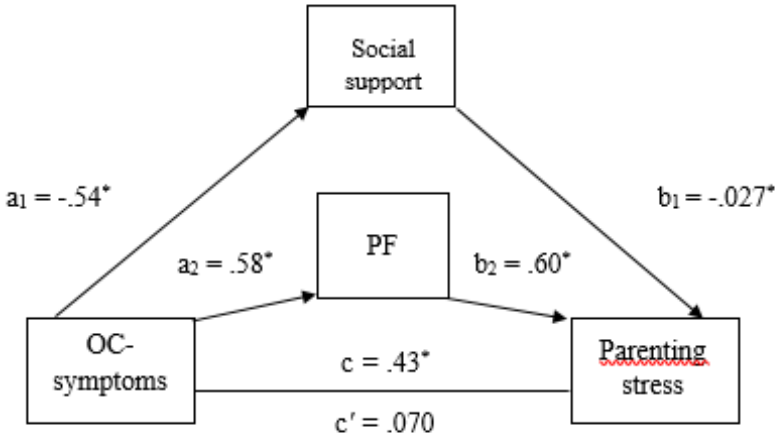

Figure 2

*Path coefficients for the relationship between the independent variable (obsessive-compulsive symptoms, possible mediators (psychological flexibility and perceived social support) and dependent variable (parenting stress). * p < .001*

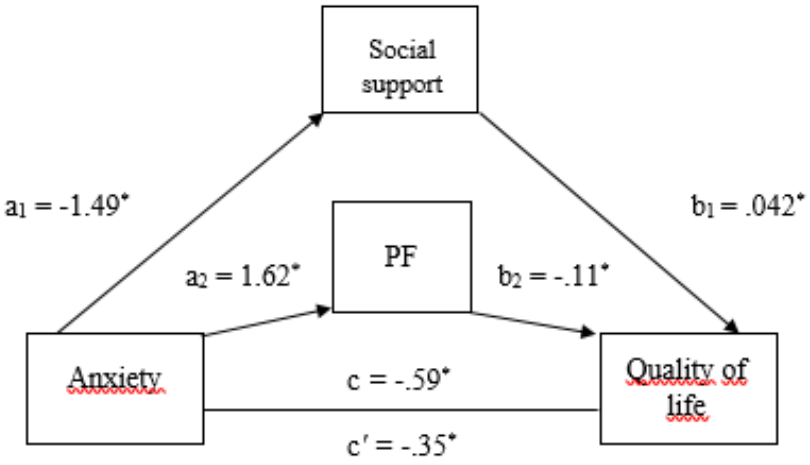

Figure 3

*Path coefficients for the relationship between the independent variable (anxiety), possible mediators (psychological flexibility and perceived social support) and dependent variable (health-related quality of life, mental component scale, MCS). * p < .001*

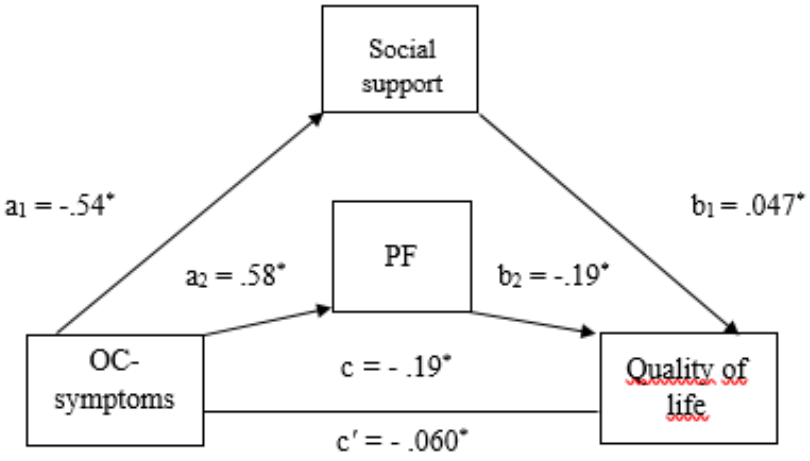

Figure 4

*Path coefficients for the relationship between the independent variable (obsessive-compulsive symptoms), possible mediators (psychological flexibility and perceived social support) and dependent variable (health-related quality of life, mental component scale, MCS). * p < .001*

Discussion

The postpartum period is supposed to be a time of joy and happiness, celebrating a new-born child and the transition into parenthood. However, it includes an increased risk of developing symptoms of depression, anxiety disorders, and obsessive-compulsive disorder. This study explored the prevalence of mental health problems in postpartum mothers and possible contributing factors to their development. The study also examined the possible salutogenic effects that perceived social support and psychological flexibility might have on parenting stress and health-related quality of life.

Sample characteristics

Participants were recruited from a closed, private, non-commercial Facebook-group that was set up as an initiative to provide helpful information and to allow expecting and newly delivered mothers to ask questions and support each other. There was no assumption that members of the group were other than a representative sample of women who were expecting or recently had delivered a child. However this is difficult to conclude since we do not have complete information regarding the participants. We had no access to the group and had little control over comments and discussions in the group regarding the survey. Presence of current mental health problems among participants were higher than in the general Swedish population, where rates of depression are estimated at 10.8% and anxiety disorders at 14.7% (Johansson, Carlbring, Heedman, Paxling & Andersson, 2013). OCD has an estimated point prevalence of 2% (Baldwin et al., 2014).

Presence of anxiety and obsessive-compulsive symptoms

It was hypothesized that symptoms of anxiety in general and postpartum-related obsessions and compulsions would be common in a postpartum population of women. Self-reported levels of anxiety and obsessive-compulsive symptoms in the present sample were largely over the clinical cut-offs suggesting that a large proportion of the sample suffered from either a current anxiety disorder(s) or OCD. This is consistent with a study by Miller et al. (2013) showing that 11% of women screened positive for OCD symptoms at 2 weeks postpartum; at 6 months postpartum the symptoms persisted for almost half of those women. In a more recently conducted study on a non-clinical population, nearly half of all women experienced postpartum obsessions and compulsions, though a majority of them reported OC-symptoms on a sub-clinical level (Miller et al., 2015). The present results are also concordant

with the prevalence of postpartum anxiety disorders found in other studies (Farr, Dietz, O'Hara, Burley & Ko, 2014; Fairbrother, Janssen, Antony, Tucker & Young, 2016), where the incidence was found to be 17-18%, concluding that anxiety disorders and related conditions significantly affect postpartum women as a group.

A very large proportion of the participants reported having intrusive thoughts, one of the key features of both anxiety and obsessive-compulsive symptoms, and engaging in neutralizing strategies, e.g. checking and seeking for insurance, which to some degree is considered normal. Yet, almost one third of the participants reported moderate to severe levels of distress evoked by intrusive, disturbing thoughts and that thoughts and behaviors interfered with their functioning. This is in line with Rachman and De Silva's (1978) original assumption that most of the general population have but do not suffer from intrusive thoughts, but that a small proportion of the population does. During a period of increased emotional and physical stress, as the postpartum period, the ability to ignore intrusive thoughts may be impaired. The fact that the thoughts usually concern the child can probably make it even more difficult to ignore the intrusive thoughts.

Clinical levels of anxiety and OCD

Our second and third hypothesis was that clinical levels of anxiety and OCD are more common in women with a history of mental health problems. Proportions of self-reported anxiety above clinical cut-off was substantial in the sample, with more than one fifth of the participants scoring over best estimate cut-off for anxiety measured by HADS. Unexpectedly, proportions over best estimated clinical cut-off of both "pure" OC symptoms measured by OCI-R (14.8%) and postpartum OC symptoms measured by the PTBC (11.2%) were high. Especially when compared to the number of participants reporting a current OCD diagnosis (5.7%). As predicted, women with a prior history of OCD or anxiety disorders experienced significantly higher levels of current OC and anxiety symptoms, with large effect sizes. These results confirm the well-known fact that previous mental health issues are a potential risk factor for the development or exacerbation of mental health problems during pregnancy and postpartum (Abramowitz, 2003). The results show that any kind of history of mental disorders included in this study may contribute to problems with postpartum anxiety and/or OC symptoms, compared with other putative contributing factors such as income, age, the number of children, or education.

It was also hypothesized that clinical levels of anxiety and OC symptoms would be more common among women who experienced physical and psychological problems during pregnancy and childbirth. Independent samples t-tests were carried out for depression, anxiety, OC and postpartum OC symptoms in order to examine significant differences between the groups. We did not find such differences except for that mothers who experienced complications during pregnancy scored higher on postpartum OC symptoms measured by PTBC. These results suggest that complications during pregnancy may contribute to postpartum OC-symptoms, however, the effect size was small, and further studies are needed.

Anxiety over and beyond depressive symptoms

We hypothesized that anxiety and OC symptoms would be related to parental stress and health-related quality of life over and beyond depressive symptoms. We found that depression and anxiety, but not obsessive-compulsive symptoms, were significant predictors, accounting for 44% of the variance in parenting stress. Anxiety and depression, but not obsessive-compulsive symptoms, were also significant predictors, accounting for 68% of the variance in quality of life. Depressive symptoms were a strong contributor to lower levels of quality of life as well as heightened parenting stress. However, anxiety adds a significant proportion of explained variance on both parental stress and quality of life, supporting the hypothesis that anxiety stretches beyond depression in explaining the link between postpartum mental health problems and parenting stress and quality of life.

Social support and psychological flexibility

Finally, we hypothesized that relationships between anxiety and OC symptoms and quality of life and parenting stress would be mediated by social support and psychological flexibility. Results from a multiple mediation analysis indicated that both psychological flexibility and perceived social support separately and partially contribute to the negative effects of OC symptoms and anxiety upon quality of life. Psychological flexibility was shown to be a relatively strong contributor to the effect of anxiety, accounting for 51% of the variance in both quality of life and parenting stress. This means that low psychological flexibility or psychological inflexibility increases the impact of anxiety upon parenting stress and quality of life. Psychological inflexibility also significantly contributes to the negative effects of OC symptoms on parenting stress and quality of life. These results add support to previous studies on the role of psychological flexibility in mental health and the effect on

parent anxiety (Moyer & Sandoz, 2015) and perceived parenting on early maladaptive schemas (Fischer, Smout & Delfabbro, 2016).

Few studies have looked at perceived social support as a putative mediator of psychiatric symptoms in postpartum samples. However, social support has been shown to lessen the negative effects of stressors and psychiatric morbidity upon postpartum women. For example, Lau and Wong (2008) found that social support mediated the relationship between family conflicts and depressive symptoms in postpartum women. In the present study, perceived social support did not exert as great a mediating influence as psychological flexibility on the relationship between X and Y, as only small effects were found in the mediation analyses.

Psychological flexibility is an overarching term for six different change-related processes, including: acceptance, committed action, self-as-observer, present-moment awareness, value-based action, and cognitive defusion (Volwes, McCracken & Zhao-O'Brien, 2010). In the present study, a single measure of psychological inflexibility, as a proxy for the model as a whole was used. It is possible that the individual components of the psychological flexibility model would have performed differently in the analyses undertaken here. Further research using measures of the 6 change processes is warranted based on these findings. Overall, the findings of this study provide clues as to potential candidate mechanisms that underlie the negative impacts of anxiety and OC symptoms on parenting stress and quality of life in post-partum women. Provision of information about psychological flexibility, or brief interventions to increase psychological flexibility, during the prenatal period may help reduce the impact of anxiety and OC symptoms that typically emerge during the postpartum phase.

Methodology

Design and procedure. There are several limitations to the current study. First, the design is correlational, which make it impossible to make any causal inference based on the results. Exploring the possible pathways between independent and dependent variables mediation analysis was performed. Mediation does not necessarily show causation but makes it possible to illustrate the indirect effect that a third, mediating, variable might have on the relation between the independent and dependent variables.

Secondly, the study is cross-sectional, meaning data collection were carried out at a single point in time. In order to make conclusions on prediction and prevention of postpartum anxiety disorders and OC-symptoms, a longitudinal design is preferable. Nevertheless, the

postpartum period is limited in time and shared by all participants. By viewing childbirth as a significant stressful life event, which may contribute to mental health problems, it makes sense to use a cross-sectional design exploring the manifestations of anxiety and OC-symptoms. Using self-report measures, however valid and reliable, limits the ability to make conclusions based on clinical or subclinical scorings of depression, anxiety or OCD. A clinical assessment is the appropriate approach in order to determine a diagnosis or not. Yet the purpose of our study is merely exploring the topography of levels of depression, anxiety and obsessive-compulsive symptoms.

Before publishing the online survey, a cost-benefit analysis was performed, as the number of questions were substantial and there were concerns that the time required to participate would take too long. In consideration of dealing with that risk, we excluded questionnaires and reduced the number of demographic questions, resulting in the final version of the survey containing 157 mandatory questions. Although still extensive, the reduction of items leaves us with possible confounding factors, which has remained unassessed, e.g. domains like sleep deprivation, quality of breastfeeding, and history of mental health problems directly linked to previous pregnancies and childbirths. Further research should explore how these factors contributes to perceived mental health in the postpartum period.

Participants. Although this is a heterogeneous sample regarding age, number of children, income, and education, the sample characteristics, with a considerable number of participants with a history of mental illness, suggests that women who identified themselves with having or having had mental health problems to a greater extent chose to participate in the study, which can cause selection bias. Merely anecdotal, there was a very positive attitude towards the survey, with high response-rates when published. This may reflect the lack of validation that women suffering from postpartum mental illness are receiving and their perception of the importance of the study.

Recruitment. There is growing evidence to suggest that Facebook is a useful recruitment tool for health research purposes (Whitaker, Stevelink & Fear, 2017). Compared to more traditional advertisement methods, e.g. prints and email, Facebook as a tool can provide the possibility to reach a specific target group. Studies based on Facebook-recruited samples concludes that their samples are similarly representative as samples recruited through traditional methods (Biedermann, 2017). Researching Facebook groupings of people who

share a main interest, as in finding a group of expecting women, enables reaching out to specific participants. More common is Facebooks paid advertising feature, rendering a cost per participant (Biedermann, 2017).

Instruments

Quality of life. Measurable quality of life has evolved into an important health aspect not solely focused on morbidity. Although there are now a large number of tools for measuring quality of life, guidelines for how to measure quality of life in postpartum populations is lacking. It is also unclear whether these instruments are valid with respect to the target group (Mogos et al., 2013). In the lack of a domain-specific scale, related to pregnancy or postpartum-related issues, the Short-Form 12-Item Health Survey (SF-12) is the most commonly used measure to assess quality of life in postpartum women. A concern with SF-12 is that the scale is constructed with the assumption that the two main component scales, the physical component scale (PCS) and the mental component scale (MCS) are uncorrelated, meaning that a high value on one scale suppresses the value of the other scale, which may lead to misleading inferences (Hagell, Westergren & Arestedt, 2017). The problem derives from the scoring algorithms including weighted indicator variables by regression coefficients, based on US general population data. To avoid incorrect conclusions, we used MCS in the analyses. Although postpartum women may suffer from physical complications, we assume that mental health problems are more correlated to the mental component scale of the SF-12.

Perceived social support. When originally publishing the results of the validity of the multidimensional scale of perceived social support (MSPSS) in 1988, the authors raised concerns about the tendency of the instrument to pull for responses in the socially desired direction of reporting higher levels of perceived social support. Similar concerns were still current when Ekbäck et al. (2013) validated the Swedish translation of the instrument. Skewed distribution may contribute to problems with reduced sensitivity and responsiveness. In this study, the mean value of perceived social support is high, but concordant to other studies examining perceived social support in postpartum women (e.g Denis, Callahan & Bouvard., 2014).

The parental thoughts and behaviors checklist. The checklist was originally developed by Abramovitz et al. (2006), as a semi-structured interview, and designed to be used assessing obsessive-compulsive symptoms in both males and females postpartum. When used in a clinical context, an interviewer is supposed to define and normalize the presence of

intrusive thoughts and neutralizing strategies. A face-to-face situation provides the possibility to talk about intrusions and strategies in a straightforward manner. To our knowledge, this is the first time the instrument is included in a cross-sectional study and we applied the instructions of how to define and normalize thoughts and behaviors to inform the participants before answering the questions. It turns out to provide useful information about both presence and perceived severity of intrusive thoughts and neutralizing strategies.

Statistical analyses. The regression analyses conducted in the present study examined how much variance symptoms of depression, anxiety and obsessive-compulsive symptoms, perceived social support and psychological flexibility accounts for in parenting stress and health-related quality of life respectively. Mediation analyses were performed to examine through what mechanisms anxiety and OC-symptoms affects parenting stress and quality of life. The percentile bootstrap estimation approach with 10,000 samples was used to reduce the risk of making type I errors.

Hayes (2013) strongly emphasizes the risks of making inferences based on estimated effect sizes, e.g. ratio of the indirect effect to the total effect or ratio of the indirect effect to the direct effect, since the outcome cannot be described in proportions e.g. the effect can be larger than 1. As the mediating variables affect the outcome variables both positively and negatively, it is hard to make inferences based on proportion of variance, since it may be both positive and negative and requires that the total effect is larger than the indirect effect (Hayes, 2013). Thus, the mediating effects are reported as the product of the indirect effect through each mediating variable, estimated as *ab* rather than individual tests of the paths of the model (*c*, *a*, and *b*), (Hayes & Rockwood, 2016).

Conclusions

This study confirms that a large proportion of postpartum women experience anxiety and OC symptoms in the clinical and sub-clinical range, which can cause substantial suffering. We provide information indicating that anxiety-related mental health problems are equally disabling as postpartum depression in terms of its effects on the parenting role and mental health-related quality of life. Postpartum depression has become a catchall phrase for almost any postpartum emotional symptoms. Given that anxiety disorders and OCD is equally disabling as depression there is need for screening of anxiety and obsessional symptoms as well as depression to predict and prevent development of mental health problems and morbidity.

It is not necessarily helpful for those women who experience a high degree of anxiety to get a diagnosis. Rather the core issue is that healthcare professionals should provide information to expecting, and newly delivered mothers. Information including that mental illness is common during the postpartum period due to various factors such as physical complications, fluctuation of hormones, stress, concerns about the parenting role, financial worries, and bodily ideals and so on. As intrusive thoughts about the child are common it is important to normalize these kinds of thoughts for concerned mothers, and inform that however intense these thoughts are, it does not mean they will act on them. Psychological flexibility is associated with higher levels of functioning and quality of life despite the presence of mental health problems. There are significant differences in perceived quality of life among those women who have high psychological flexibility compared to those who do not. Even though psychological flexibility is only one of the parts of the theory of acceptance and commitment therapy, it is likely that it plays an important role in how postpartum women perceive anxiety, affecting their perception of the parenting role and quality of life. As psychological flexibility can be taught, trained and improved, teaching and training could be included in programs for expecting women provided by maternal care institutions. We found that there was a significant risk of developing postpartum anxiety, OCD and depression if there was a history of mental health problems, hence further research on treating expecting women at risk of developing postpartum mood disorders within an ACT framework is needed.

References

Abramowitz, J. S., Schwartz, S. A., & Moore, K. M. (2003). Obsessional Thoughts in Postpartum Females and Their Partners: Content, Severity, and Relationship with Depression. *Journal Of Clinical Psychology In Medical Settings*, *10*(3), 157-164.

Abramowitz, J. S., Khandker, M., Nelson, C. A., Deacon, B. J., & Rygwall, R. (2006). The role of cognitive factors in the pathogenesis of obsessive–compulsive symptoms: A prospective study. *Behaviour Research And Therapy*, *44*1361-1374. doi:10.1016/j.brat.2005.09.011

Abramowitz, J. S., Meltzer-Brody, S., Leserman, J., Killenberg, S., Rinaldi, K., Mahaffey, B. L., & Pedersen, C. (2010). Obsessional thoughts and compulsive behaviors in a sample of women with postpartum mood symptoms. *Archives Of Women's Mental Health*, *13*(6), 523-530. doi:10.1007/s00737-010-0172-4

Abramowitz, J. S., & Jacoby, R. J. (2015). Obsessive-compulsive and related disorders: a critical review of the new diagnostic class. *Annual Review Of Clinical Psychology*, *11*165-186. doi:10.1146/annurev-clinpsy-032813-153713

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

A-Tjak J, Davis M, Morina N, Powers MB, Smits JA, Emmelkamp P (2015) A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. Psychother Psychosom 84:30–36

Austin, M., Hadzi-Pavlovic, D., Priest, S., Reilly, N., Wilhelm, K., Saint, K., & Parker, G. (2010). Depressive and anxiety disorders in the postpartum period: how prevalent are they and can we improve their detection?. *Archives Of Women's Mental Health*, *13*(5), 395-401. doi:10.1007/s00737-010-0153-7

Baldwin, D. S., Anderson, I. M., Nutt, D. J., Allgulander, C., Bandelow, B., den Boer, J. A., & ... Wittchen, H. (2014). Evidence-based pharmacological treatment of anxiety disorders, post-traumatic stress disorder and obsessive-compulsive disorder: A revision of the 2005 guidelines from the British Association for Psychopharmacology. *Journal Of Psychopharmacology*, *28*(5), 403-439. doi:10.1177/0269881114525674

Bandelow, B., & Michaelis, S. (2015). Epidemiology of anxiety disorders in the 21st century. *Dialogues In Clinical Neuroscience*, *17*(3), 327-335.

Baxter, A. J., Vos, T., Scott, K. M., Ferrari, A. J., & Whiteford, H. A. (2014). The global burden of anxiety disorders in 2010. Psychological Medicine, 44(11), 2363-2374. doi:10.1017/S0033291713003243

Bayrampour, H., McNeil, D. A., Benzies, K., Salmon, C., Gelb, K., & Tough, S. (n.d). A qualitative inquiry on pregnant women's preferences for mental health screening. *Bmc Pregnancy And Childbirth*, *17*

Biedermann, N. (2017). The use of Facebook for virtual asynchronous focus groups in qualitative research. Contemporary Nurse, 1-9. doi:10.1080/10376178.2017.1386072

Bjelland, I., Dahl, A. A., Haug, T. T., & Neckelmann, D. (2002). Review: The validity of the Hospital Anxiety and Depression Scale. An updated literature review. *Journal Of Psychosomatic Research*, *52*69-77. doi:10.1016/S0022-3999(01)00296-3

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., & ... Zettle, R. D. (2011). Preliminary Psychometric Properties of the Acceptance and Action Questionnaire–II: A Revised Measure of Psychological Inflexibility and Experiential Avoidance. *Behavior Therapy*, *42*676-688. doi:10.1016/j.beth.2011.03.007

Bonacquisti, A., Cohen, M. J., & Schiller, C. E. (n.d). Acceptance and commitment therapy for perinatal mood and anxiety disorders: development of an inpatient group intervention. Archives Of Womens Mental Health, 20(5), 645-654.

Brownell, A., & Shumaker, S. A. (1984). Social Support: An Introduction to a Complex Phenomenon. *Journal Of Social Issues*, *40*(4), 1-9.

Buttner, M. M., O'Hara, M. W., & Watson, D. (2012). The Structure of Women's Mood in the Early Postpartum. *Assessment*, *19*(2), 247-256.

Chaudron, L. H., & Nirodi, N. (2010). The obsessive-compulsive spectrum in the perinatal period: a prospective pilot study. Archives Of Women's Mental Health, 13(5), 403-410. doi:10.1007/s00737-010-0154-6

Christian, L.)., & Storch, E.). (2009). Cognitive behavioral treatment of postpartum onset: Obsessive compulsive disorder with aggressive obsessions. Clinical Case Studies, 8(1), 72-83. doi:10.1177/1534650108326974

Clark, D. A., Abramowitz, J., Alcolado, G. M., Alonso, P., Belloch, A., Bouvard, M., & ... Wong, W. (2014). Part 3. A question of perspective: The association between intrusive thoughts and obsessionality in 11 countries. *Journal Of Obsessive-Compulsive And Related Disorders*, *3*292-299. doi:10.1016/j.jocrd.2013.12.006

Crawford, J., Henry, J., Crombie, C., & Taylor, E. (2001). Brief report Normative data for the HADS from a large non-clinical sample. *British Journal Of Clinical Psychology*, *40*(4), 429.

Dahl, J. (2005). Acceptance and commitment therapy for chronic pain. Reno : Context Press, cop. 2005.

De Brock AJLL, Vermulst AA, Gerris JRM, Abidin RR. Nijmeegse Ouderlijke Stress Index. Lisse 1992: Swets en Zeitlinger b.v.

Denis, A., Callahan, S., & Bouvard, M. (2015). Evaluation of the French Version of the Multidimensional Scale of Perceived Social Support During the Postpartum Period. *Maternal & Child Health Journal*, *19*(6), 1245-1251. doi:10.1007/s10995-014-1630-9

Dennis CL, Dowswell T. Psychosocial and psychological interventions for preventing postpartum depression. Cochrane Database of Systematic Reviews 2013, Issue 2. Art. No.: CD001134. DOI: 10.1002/14651858.CD001134.pub3.

Depression, anxiety and their comorbidity in the Swedish general population: point prevalence and the effect on health-related quality of life. (2013). PeerJ, e98. doi:10.7717/peerj.98

Dikmen-Yildiz, P., Ayers, S., & Phillips, L. (n.d). Depression, anxiety, PTSD and comorbidity in perinatal women in Turkey: A longitudinal population-based study. *Midwifery, 55*29-37.

Ekbäck, M.)., Lindberg, M.)., Benzein, E.)., & Årestedt, K.). (2013). The Swedish version of the multidimensional scale of perceived social support (MSPSS) - a psychometric evaluation study in women with hirsutism and nursing students. *Health And Quality Of Life Outcomes, 11*(1), doi:10.1186/1477-7525-11-168

Elker, C. 2017 http://delicatechange.blogspot.se/ retrieved from site 01-12-2017

Fairbrother, N., Janssen, P., Antony, M. M., Tucker, E., & Young, A. H. (2016). Perinatal anxiety disorder prevalence and incidence. *Journal Of Affective Disorders, 200*148-155. doi:10.1016/j.jad.2015.12.082

Farr, S. L., Dietz, P. M., O'Hara, M. W., Burley, K., & Ko, J. Y. (2014). Postpartum Anxiety and Comorbid Depression in a Population-Based Sample of Women. Journal Of Women's Health (15409996), 23(2), 120-128. doi:10.1089/jwh.2013.4438

Fischer, T. D., Smout, M. F., & Delfabbro, P. H. (2016). The relationship between psychological flexibility, early maladaptive schemas, perceived parenting and psychopathology. *Journal Of Contextual Behavioral Science, 5*(3), 169-177. doi:10.1016/j.jcbs.2016.06.002

Gandek, B., Ware, J. E., Aaronson, N. K., Apolone, G., Bjorner, J. B., Brazier, J. E., & ... Sullivan, M. (1998). Cross-validation of item selection and scoring for the SF-12 Health Survey in nine countries: results from the IQOLA Project. International Quality of Life Assessment. *Journal Of Clinical Epidemiology, 51*(11), 1171-1178.

Gavin, N. I., Gaynes, B. N., Lohr, K. N., Meltzer-Brody, S., Gartlehner, G., & Swinson, T. (2005). Perinatal depression: a systematic review of prevalence and incidence. *Obstetrics And Gynecology, 106*(5 Pt 1), 1071-1083.

Gillanders, D. T., Bolderston, H., Bond, F. W., Dempster, M., Flaxman, P. E., Campbell, L., & ... Remington, B. (2014). The Development and Initial Validation of the Cognitive Fusion Questionnaire. *Behavior Therapy, 45*(Special Series: Building a Two-Way Bridge Between Science and Practice), 83-101. doi:10.1016/j.beth.2013.09.001

Glasheen, C., Richardson, G. A., & Fabio, A. (2010). A systematic review of the effects of postnatal maternal anxiety on children. *Archives Of Women's Mental Health, 13*(1), 61-74. doi:10.1007/s00737-009-0109-y

Glover, V., Bergman, K., Sarkar, P., & O'Connor, T. G. (2009). Association between maternal and amniotic fluid cortisol is moderated by maternal anxiety. *Psychoneuroendocrinology, 34*430-435. doi:10.1016/j.psyneuen.2008.10.005

Glover, V. (2014). Maternal depression, anxiety and stress during pregnancy and child outcome; what needs to be done. *Best Practice & Research: Clinical Obstetrics & Gynaecology*, *28*(1), 25-35. doi:10.1016/j.bpobgyn.2013.08.017

Goldberg, A. E. (2010). The transition to adoptive parenthood. In T. W. Miller, T. W. Miller (Eds.) , *Handbook of stressful transitions across the lifespan* (pp. 165-184). New York, NY, US: Springer Science + Business Media. doi:10.1007/978-1-4419-0748-6_9

Goodman, J. H., Watson, G. R., & Stubbs, B. (2016). Review article: Anxiety disorders in postpartum women: A systematic review and meta-analysis. *Journal Of Affective Disorders*, *203*292-331. doi:10.1016/j.jad.2016.05.033

Greco, L. A., Lambert, W., & Baer, R. A. (2008). Psychological inflexibility in childhood and adolescence: Development and evaluation of the Avoidance and Fusion Questionnaire for Youth. *Psychological Assessment*, *20*(2), 93-102. doi:10.1037/1040-3590.20.2.93

Hajcak, G., Huppert, J. D., Simons, R. F., & Foa, E. B. (2004). Psychometric properties of the OCI-R in a college sample. *Behaviour Research & Therapy*, *42*(1), 115. doi:10.1016/j.brat.2003.08.002

Herrmann, C. (1997). International experiences with the Hospital Anxiety and Depression Scale--a review of validation data and clinical results. *Journal Of Psychosomatic Research*, *42*(1), 17-41.

Hagell, P., Westergren, A., & Arestedt, K. (n.d). Beware of the origin of numbers: Standard scoring of the SF-12 and SF-36 summary measures distorts measurement and score interpretations. Research In Nursing & Health, 40(4), 378-386.

Harland, K. K., Saftlas, A. F., Yankowitz, J., & Peek-Asa, C. (2014). Risk Factors for Maternal Injuries in a Population-Based Sample of Pregnant Women. *Journal Of Women's Health (15409996)*, *23*(12), 1033-1038. doi:10.1089/jwh.2013.4560

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com/public/process2012.pdf

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach*. New York: Guilford Press.

Hayes, A. F., & Rockwood, N. J. (2016). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behaviour Research And Therapy*, 1-16. Doi:10.1016/j.brat.2016.11.001

Hayes, S. C., Strosahl, K., & Wilson, K. G. (2012). Acceptance and commitment therapy: The process and practice of mindful change (2nd. Ed.). New York : Guilford Press

Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal Of Consulting And Clinical Psychology, 64*(6), 1152-1168. doi:10.1037/0022-006X.64.6.1152

Herguner, S., Cicek, E., Annagur, A., Herguner, A., & Ors, R. (2014). Association of Delivery Type with Postpartum Depression, Perceived Social Support and Maternal Attachment. Dusunen Adam: Journal Of Psychiatry & Neurological Sciences, 27(1), 15-20. Doi:10.5350/DAJPN2014270102

Heron, J., O'Connor, T. G., Evans, J., Golding, J., & Glover, V. (2004). Research report: The course of anxiety and depression through pregnancy and the postpartum in a community sample. *Journal Of Affective Disorders, 80*65-73. doi:10.1016/j.jad.2003.08.004

Robert, J., Per, C., Åsa, H., Björn, P., & Gerhard, A. (2013). Depression, anxiety and their comorbidity in the Swedish general population: point prevalence and the effect on health-related quality of life. *Peerj, Vol 1, P E98 (2013)*, e98. doi:10.7717/peerj.98

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Koretz, D., Merikangas, K. R., & ... Wang, P. S. (2003). The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R). *Jama, 289*(23), 3095-3105.

Kurtz, S., Levine, J., & Safyer, M. (2017). Ask the Question: Screening for Postpartum Mood and Anxiety Disorders in Pediatric Primary Care. *Current Problems In Pediatric And Adolescent Health Care, 47*241-253. doi:10.1016/j.cppeds.2017.08.002

Lau, Y., & Wong, D. K. (2008). The role of social support in helping Chinese women with perinatal depressive symptoms cope with family conflict. *Journal Of Obstetric, Gynecologic, And Neonatal Nursing: JOGNN, 37*(5), 556-571. doi:10.1111/j.1552-6909.2008.00273.x

Lavender, T., , &. (n.d). Women's experiences after a third-degree obstetric anal sphincter tear: A qualitative study. *Birth-Issues In Perinatal Care, 32*(2), 129-136.

Lawrence, P.)., Kempton, C.)., Stewart, A.)., Stein, A.)., & Craske, M.). (2017). Intrusive thoughts and images of intentional harm to infants in the context of maternal postnatal depression, anxiety, and OCD. *British Journal Of General Practice, 67*(661), 376-377. doi:10.3399/bjgp17X692105

Lin, N., Dean, A. & Ensel, W.M. (red.) (1986). *Social support, life events and depression*. Orlando, Fla: Academic Press.

Logsdon, M. C., Wisner, K. L., & Pinto-Foltz, M. D. (2006). CLINICAL ISSUES: The Impact of Postpartum Depression on Mothering. *Journal Of Obstetric, Gynecologic & Neonatal Nursing, 35*652-658. doi:10.1111/j.1552-6909.2006.00087.x

Loyd, B. H., & Abidin, R. R. (1985). Revision of the Parenting Stress Index. *Journal Of Pediatric Psychology, 10*(2), 169.

Lundgren T, Parling T. Swedish Acceptance and Action Questionnaire (SAAQ): a psychometric evaluation. Cogn Behav Ther. 2017;46(4):315-326

Matthey, S., Barnett, B., Howie, P., & Kavanagh, D. J. (2003). Research report: Diagnosing postpartum depression in mothers and fathers: whatever happened to anxiety?. *Journal Of Affective Disorders*, *74*139-147. doi:10.1016/S0165-0327(02)00012-5

McAllister-Williams, R. H., Howard, L. M., Khalifeh, H., Pariante, C. M., Young, A. H., Taylor, D., & … Easter, A. (2017). British Association for Psychopharmacology consensus guidance on the use of psychotropic medication preconception, in pregnancy and postpartum 2017. Journal Of Psychopharmacology, 31(5), 519-552. doi:10.1177/0269881117699361

McStay, R., Trembath, D., & Dissanayake, C. (2014). Stress and Family Quality of Life in Parents of Children with Autism Spectrum Disorder: Parent Gender and the Double ABCX Model. *Journal Of Autism & Developmental Disorders*, *44*(12), 3101-3118. doi:10.1007/s10803-014-2178-7

Meijssen, D. E., Wolf, M. J., Koldewijn, K., van Wassenaer, A. G., Kok, J. H., & van Baar, A. L. (2011). Parenting stress in mothers after very preterm birth and the effect of the Infant Behavioural Assessment and Intervention Program. *Child: Care, Health & Development*, *37*(2), 195-202. doi:10.1111/j.1365-2214.2010.01119.x

Misri, S., & Kendrick, K. (2007). Treatment of perinatal mood and anxiety disorders: A review. *The Canadian Journal Of Psychiatry / La Revue Canadienne De Psychiatrie*, *52*(8), 489-498.

Miller, R. L., Pallant, J. F., & Negri, L. M. (2006). Anxiety and stress in the postpartum: Is there more to postnatal distress than depression?. *BMC Psychiatry*, *6*1-11. doi:10.1186/1471-244X-6-12

Miller ES, Chu C, Gollan J, Gossett DR. Obsessive-compulsive symptoms during the postpartum period. A prospective cohort. J Reprod Med. 2013;58:115–122

Miller, E. S., Hoxha, D., Wisner, K. L., & Gossett, D. R. (2015). Obsessions and Compulsions in Postpartum Women Without Obsessive Compulsive Disorder. Journal Of Women's Health (15409996), 24(10), 825-830. doi:10.1089/jwh.2014.5063

Mogos, M. F., August, E. M., Salinas-Miranda, A. A., Sultan, D. H., & Salihu, H. M. (2013). A systematic review of quality of life measures in pregnant and postpartum mothers. *Applied Research In Quality Of Life*, *8*(2), 219-250. doi:10.1007/s11482-012-9188-4

Moyer, D. N., & Sandoz, E. K. (2015). The role of psychological flexibility in the relationship between parent and adolescent distress. *Journal Of Child And Family Studies*, *24*(5), 1406-1418. doi:10.1007/s10826-014-9947-y

Nieuwesteeg, A.)., Hartman, E.)., Emons, W.)., Pouwer, F.)., van Bakel, H.)., Aanstoot, H.)., & van Mil, E.). (2017). Paediatric parenting stress in fathers and mothers of

young children with Type 1 diabetes: a longitudinal study. *Diabetic Medicine*, *34*(6), 821-827. doi:10.1111/dme.13300

Norhayati, M., Nik Hazlina, N., Asrenee, A., & Wan Emilin, W. (2015). Review: Magnitude and risk factors for postpartum symptoms: A literature review. *Journal Of Affective Disorders*, *175*34-52. doi:10.1016/j.jad.2014.12.041

O'Hara MW, McCabe JE (2013) Postpartum depression: current status and future directions. Annu Rev Clin Psychol 9:379–407

Pope, C. J., Oinonen, K., Mazmanian, D., & Stone, S. (n.d). The hormonal sensitivity hypothesis: A review and new findings. *Medical Hypotheses*, *102*69-77.

Rachman, S., & de Silva, P. (1978). Abnormal and normal obsessions. *Behaviour Research And Therapy*, *16*(4), 233-248. doi:10.1016/0005-7967(78)90022-0

Radomsky, A. S., Alcolado, G. M., Abramowitz, J. S., Alonso, P., Belloch, A., Bouvard, M., & ... Wong, W. (2014). Part 1—You can run but you can't hide: Intrusive thoughts on six continents. *Journal Of Obsessive-Compulsive And Related Disorders*, *3*269-279. doi:10.1016/j.jocrd.2013.09.002

Ramaswamy, V., Aroian, K. J., & Templin, T. (2009). Adaptation and psychometric evaluation of the multidimensional scale of perceived social support for Arab American adolescents. *American Journal Of Community Psychology*, *43*(1-2), 49-56. doi:10.1007/s10464-008-9220-x

Reiter, S. F., Bjørk, M. H., Daltveit, A. K., Veiby, G., Kolstad, E., Engelsen, B. A., & Gilhus, N. E. (2016). Life satisfaction in women with epilepsy during and after pregnancy. *Epilepsy & Behavior*, *62*251-257. doi:10.1016/j.yebeh.2016.06.025

Ross LE McLean LM Anxiety disorders during pregnancy and the postpartum period: a systematic review. *J Clin Psychiatry* 2006;67 (8) 1285- 1298

Russell EJ, Fawcett JM, Mazmanian D (2013) Risk of obsessive-compulsive disorder in pregnant and postpartum women: a meta-analysis. J Clin Psychiatry 74(4):377–385

Sahrakorpi, N., Koivusalo, S. B., Stach-Lempinen, B., Eriksson, J. G., Kautiainen, H., & Roine, R. P. (2017". "The Burden of Pregnancy"; heavier for the heaviest? The changes in Health Related Quality of Life (HRQoL) assessed by the 15D instrument during pregnancy and postpartum in different body mass index groups: a longitudinal survey. *Acta Obstetricia Et Gynecologica Scandinavica*, *96*(3), 352-358. doi:10.1111/aogs.13068

Sadat, Z., Taebi, M., Saberi, F., & Kalarhoudi, M. A. (2013). The relationship between mode of delivery and postpartum physical and mental health related quality of life. *Iranian Journal Of Nursing & Midwifery Research*, *18*(6), 499-504.

Sanner, C.M. & Neece, C.L. J Child Fam Stud (2017). https://doi.org/10.1007/s10826-017-0884-4

Socialstyrelsen, Nationella riktlinjer för vård vid depression och ångestsyndrom Stöd för styrning och ledning. Stockholm: Socialstyrelsen; 2017

Socialstyrelsen, Vård efter förlossning, en nationell kartläggning av vården till kvinnor efter förlossning. Stockholm: Socialstyrelsen: 2017

Spinelli, M. (2009). Postpartum psychosis: detection of risk and management. *American Journal Of Psychiatry*, *166*(4), 405-408. doi:10.1176/appi.ajp.2008.08121899

Sullivan, M., Karlsson, J. & Taft, C. (1997) SF-12 Hälsoenkät. Svensk Manual [SF-12 Health Survey. Swedish Manual]. Göteborg: Göteborg University and Sahlgrenska University Hospital.

Sultan, S., Leclair, T., Burns, W., Abate, C., & Rondeau, E. (n.d). A systematic review on factors and consequences of parental distress as related to childhood cancer. *European Journal Of Cancer Care*, *25*(4), 616-637.

Thomason, E., Volling, B. L., Flynn, H. A., McDonough, S. C., Marcus, S. M., Lopez, J. F., & Vazquez, D. M. (2014). Parenting stress and depressive symptoms in postpartum mothers: Bidirectional or unidirectional effects?. *Infant Behavior And Development*, *37*406-415. doi:10.1016/j.infbeh.2014.05.009

Tietz, A., Zietlow, A., & Reck, C. (2014). Maternal bonding in mothers with postpartum anxiety disorder: the crucial role of subclinical depressive symptoms and maternal avoidance behaviour. *Archives Of Women's Mental Health*, *17*(5), 433-442. doi:10.1007/s00737-014-0423-x

Twohig MP, Hayes SC, Masuda A (2006) Increasing willingness to experience obsessions: acceptance and commitment therapy as a treatment for obsessive-compulsive disorder. Behav Ther 37(1):3–13

Twohig, M. P., Abramowitz, J. S., Bluett, E. J., Fabricant, L. E., Jacoby, R. J., Morrison, K. L., & ... Smith, B. M. (2015). Exposure therapy for OCD from an acceptance and commitment therapy (ACT) framework. Journal Of Obsessive-Compulsive And Related Disorders, 6167-173. doi:10.1016/j.jocrd.2014.12.007

Triviño-Juárez, J., Romero-Ayuso, D., Nieto-Pereda, B., Forjaz, M., Criado-Álvarez, J., Arruti-Sevilla, B., & ... Plá-Mestre, R. (2017). Health related quality of life of women at the sixth week and sixth month postpartum by mode of birth. *Women & Birth*, *30*(1), 29. doi:10.1016/j.wombi.2016.06.005

Vesga-Lopez, O., Blanco, C., Keyes, K., Olfson, M., Grant, B. F., & Hasin, D. S. (2008). Psychiatric Disorders in Pregnant and Postpartum Women in the United States. Archives of General Psychiatry, 65(7), 805–815. http://doi.org/10.1001/archpsyc.65.7.805

Vowles, K., , , McCracken, L. M., Vowles, K. E., & Zhao-O'Brien, J. (n.d). Further development of an instrument to assess psychological flexibility in people with chronic pain. *Journal Of Behavioral Medicine*, *33*(5), 346-354.

Wenzel, A., Haugen, E. N., Jackson, L. C., & Brendle, J. R. (2005). Anxiety symptoms and disorders at eight weeks postpartum. *Journal Of Anxiety Disorders, 19*295-311. doi:10.1016/j.janxdis.2004.04.001

Wenzel, A. (2011). Psychotherapy for perinatal anxiety. In , *Anxiety in childbearing women: Diagnosis and treatment* (pp. 181-200). Washington, DC, US: American Psychological Association. doi:10.1037/12302-010

Whitaker, C., Stevelink, S., & Fear, N. (n.d). The Use of Facebook in Recruiting Participants for Health Research Purposes: A Systematic Review. *Journal Of Medical Internet Research*, *19*(8),

Whitaker, K., Young-Hyman, D., Vernon, M., & Wilcox, S. (2014). Maternal stress predicts postpartum weight retention. *Maternal And Child Health Journal, 18*(9), 2209-2217. doi:10.1007/s10995-014-1470-7

The World Health Organization quality of life assessment (WHOQOL): Position paper from the World Health Organization, In Social Science & Medicine, Volume 41, Issue 10, 1995, Pages 1403-1409, ISSN 0277-9536, https://doi.org/10.1016/0277-9536(95)00112-K.

WHOQOL, G. (1994). Development of the WHOQOL: Rationale and Current Status. *International Journal Of Mental Health*, (3), 24.

Tiemeier, H., , , Wolff, N., Darlington, A., Hunfeld, J., & ... Hofman, A. (n.d). Determinants of Somatic Complaints in 18-month-old Children: The Generation R Study. *Journal Of Pediatric Psychology*, *35*(3), 306-316

Qobadi, M., Collier, C., & Zhang, L. (2016). The Effect of Stressful Life Events on Postpartum Depression: Findings from the 2009-2011 Mississippi Pregnancy Risk Assessment Monitoring System. *Maternal & Child Health Journal, 20*164-172. doi:10.1007/s10995-016-2028-7

Zigmond, A. S., & Snaith, R. P. (1983). The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica*, *67*(6), 361. doi:10.1111/j.1600-0447.1983.tb09716.x

Zimet, G.)., Dahlem, N.)., Zimet, S.)., & Farley, G.). (1988). The Multidimensional Scale of Perceived Social Support. *Journal Of Personality Assessment*, *52*(1), 30-41. doi:10.1207/s15327752jpa5201_2

Appendix 1 *Information letter to the participants*

Bidra till ökad kunskap om psykisk ohälsa efter förlossning!

Bästa deltagare!

När Socialstyrelsen nyligen genomförde en granskning av hur omhändertagandet av nyförlösta kvinnor ser ut i Sverige visade det sig finnas stora brister. Många nyblivna föräldrar lämnas utan stöd både när det gäller fysiska och psykiska problem som uppstått under graviditeten eller efter förlossningen.

Det är vanligt med både nedstämdhet och ångest efter att ha fått barn och till en viss grad är det att betrakta som normalt. Depression efter förlossning är ett relativt väl utforskat område. Det finns inom många landsting krav på att föräldrar ska skatta nedstämdhet en tid efter förlossningen. Men när det kommer till ångest finns det inte lika tydliga riktlinjer för hur detta ska undersökas och många nyblivna föräldrar går med hög grad av oro och ångest i tron att det kanske ska vara så.

Detta arbete handlar om psykisk hälsa/ohälsa efter förlossningen. Vi är särskilt intresserad av OCD (tvångssyndrom) och ångest som drabbar upp till 15 procent av alla som nyligen fått barn. OCD/ångest kan innebära att den drabbade lider av svåra påträngande tankar om sitt barn. Ofta börjar föräldern utföra ”ritualer” för att neutralisera dessa påträngande tankar. Särskilt tabubelagda tankar, aggressiva eller sexuella tvångstankar, kan vara svåra att ta upp med sin kontakt på till exempel barnavårdscentralen eller med sin läkare.

Denna enkät riktar sig till ett stort antal kvinnor och vi kommer analysera det insamlade materialet för att se vilka samband som finns mellan påträngande tankar, nedstämdhet, oro, ångest och tvångssyndrom och aspekter av föräldrarollen, upplevt socialt stöd, grad av acceptans och upplevd livskvalitet.

Enkäten riktar sig till dig som fött barn de senaste 12 månaderna.

Vissa frågor i formuläret kan upplevas som störande. Var vänlig och gör ditt bästa att besvara ALLA frågor i formuläret. Försök att inte ägna för mycket tid vid varje fråga utan svara så spontant du kan.

Du kan när som helst välja att avbryta din medverkan.

De flesta frågor är obligatoriska och enkäten tar cirka tjugo minuter att besvara.

Du är helt anonym, inga personuppgifter samlas in. All data behandlas strikt konfidentiellt, det betyder att inga IP-adresser eller andra uppgifter lagras eller sparas.

Tack för att du tar dig tid att delta, din medverkan är värdefull!

/Johan Thiséus

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Hanledare:

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Matti Cervin, leg psykolog, BUP, Lund

Appendix 2 *Swedish version of the Parental Thoughts and Behaviors Checklist adapted to a survey format*

<u>Parental Thoughts and Behaviors Checklist</u>

Var vänlig och läs igenom följande anvisningar innan ni fyller i formuläret:

Vi är intresserade av dina erfarenheter av obehagliga, orealistiska, störande eller oönskade tankar, inre bilder eller impulser kring ditt barn, som poppar upp i ditt medvetande när du minst önskar det. De flesta har erfarenhet av den här typen av tankar och impulser, men människor är olika i hur ofta den här typen av tankar uppstår och hur obehagliga de upplevs. Exempel på tankar relaterade till små barn är:

- ***En oönskad tanke om att avsiktligt skada barnet, även om du aldrig skulle göra det.***
- ***Ett infall om att tappa barnet från en hög höjd***
- ***En oönskad längtan efter att vidröra barnets kön***
- ***Upprepade tankar om att barnet ska kvävas eller hastigt dö.***

Kom ihåg att vi INTE frågar om generell oro om barnets allmänna hälsa eller andra familjeangelägenheter. Snarare är vi intresserade av ORIMLIGA tankar, mentala bilder och impulser som kan uppstå för ditt inre.
Vi är medvetna om att det kan upplevas som obehagligt att beskriva den här typen av tankar. Kanske oroar du dig för att du är en dålig förälder om du har dessa tankar. Det är viktigt att vara medveten om att de allra flesta har den här typen av upplevelser då och då – och att det är ganska vanligt hos nyblivna föräldrar.
Dina svar är helt anonyma och behandlas med strikt konfidentialitet.

Vänligen fyll i om du har upplevt – eller inte upplevt – varje typ av orimlig/oönskad tanke som finns i listan nedan genom att markera ”JA” eller ”NEJ”. Om du har haft tankar tidigare, men inte längre, markera ”TIDIGARE”. Även om du bara kortvarigt haft den här typen av tankar är det viktigt att du markerar detta.

Har du haft någon av dessa tankar om ditt barn?

	JA	*NEJ*	*TIDIGARE*
1. Tankar om att barnet kanske kommer att sluta andas			
2. Tankar om att barnet håller på att kvävas			
3. Tankar om att barnet skulle kunna kvävas i sömnen			
4. Tankar om att barnet skulle kunna dö i plötslig spädbarnsdöd			
5. Tankar om att slå barnet för hårt när han/hon ska rapa			
6. Oönskade tankar om att skrika på, skaka eller slå barnet			
7. Tankar om att avsiktligt dränka barnet			
8. Tankar om att knivhugga barnet			
9. Tankar om att bränna barnet med hett vatten			
10. Tankar om att oavsiktligt skada barnets fontanell			
11. Tankar om att barnet kommer att dö genom en olycka			
12. Rädsla att tappa barnet när du håller honom/henne			
13. Tankar om att tappa barnet från en hög höjd			
14. Rädsla att skada barnet genom att lyfta honom/henne på fel sätt			
15. Rädsla att barnet ska kvävas genom att sätta t ex en leksak eller mat i halsen			
16. Tankar om att barnet ska attackeras av ett djur (t ex en hund)			
17. Tankar om att barnet ska drunkna medan det badas			
18. Tankar om att barnet ska vara med i en bilolycka			
19. Tankar om att något händer dig eller din partner så att ni inte längre kan ta hand om barnet			
20. Rädsla att glömma barnet i sin bilbarnstol			
21. Oönskade tankar om att du skulle kunna lämna bort barnet			
22. Rädsla att någon skulle kunna ta barnet ifrån dig			

23. Oönskade tankar om att lämna barnet någonstans när han/hon gråter

24. Tankar om att barnet blir sjukt av att vara på golvet eller vara i kontakt med andra smutsiga ytor

25. Tankar om att barnet blir sjukt av kroppsavfall (avföring, urin)

26. Oro kring hushållsprodukter (t ex blekmedel, rengöringsmedel, lösningsmedel)

27. Oro kring att insekter eller djur ska komma i kontakt med barnet

28. Oro att du eller någon annan på något sätt skulle smitta barnet

29. Oacceptabla tankar kring barnets könsorgan

30. Tankar kring barnets sexualitet eller framtida sexuella läggning

31. Oacceptabla sexuella tankar kring barnet medan du ammar

32. Andra orimliga och oönskade sexuella tankar kring barnet

33. Orealistiska rädslor att barnet skulle ha en allvarlig sjukdom (CP-skada, MS, utvecklingsstörning)

På nästa sida finns det ett antal frågor om de tankar som du markerat med ”JA”. Titta igenom de frågor som du svarat ”JA” på och gå sedan vidare till nästa sida.

Anvisningar: Svaren på följande frågor ska baseras på de orimliga/oönskade tankar som du på föregående sida indikerade att du hade. Ha den senaste veckan i åtanke när du besvarar frågorna. Välj ett alternativ under varje fråga.

1. Hur mycket av din tid tas upp av orimliga/oönskade tankar om din bebis? Hur ofta förekommer dessa tankar eller idéer? (Fundera både över antal gånger och hur länge det varar).

0 = Ingen

1 = Mindre än en timme per dag, eller tillfälliga tankar

2 = 1 till 3 timmar per dag eller ofta förekommande tankar

3 = 3 till 8 timmar per dag eller mycket ofta förekommande tankar

4 = Mer än 8 timmar per dag eller konstant förekommande tankar

2. Hur mycket stör dessa tankar ditt familjeliv eller arbete? Finns det saker du inte kan göra på grund av tankarna?

0 = Inte alls

1 = Det stör litegrann, men överlag är jag inte begränsad

2 = Tankarna påverkar mig tydligt, men går fortfarande att hantera

3 = Tankarna orsakar stora svårigheter att utföra saker

4 = Jag är helt oförmögen att utföra saker på grund av tankarna

3. Hur mycket ångest eller obehag upplever du till följd av dessa orimliga/oönskade tankar?

0 = Ingen

1 = Inte alltför störande

2 = Störande – men går fortfarande att hantera

3 = Väldigt störande

4 = I princip konstant förlamande ångest

4. Hur mycket anstränger du dig för att motstå tankarna? Hur ofta försöker du avleda dig själv, eller avfärda tankarna? (Skatta bara din ansträngning att försöka motstå tankarna, inte om du lyckas eller misslyckas).

0 = Jag gör alltid ett försök att motstå tankarna, eller så behöver jag inte

1 = Jag försöker mestadels motstå tankarna

2 = Jag gör en del ansträngningar att motstå tankarna

3 = Jag ger efter för tankarna, utan att försöka motstå dem, men jag gör det motvilligt

4 = Jag ger villigt upp helt och hållet för alla tankar

5. Hur mycket kontroll har du över dina tankar? Hur framgångsrik är du på att stoppa eller avleda tankarna när de uppstår? Kan du avfärda dem?

0 = Jag har total kontroll över tankarna

1 = Jag har stor kontroll – jag kan ofta stoppa eller avleda tankar

2 = Jag har måttlig kontroll – ibland kan jag stoppa eller avleda tankar

3 = Jag har liten kontroll – jag lyckas sällan stoppa eller avleda tankar

4 = Jag har ingen kontroll – jag är oförmögen att stoppa eller avleda tankarna ens tillfälligt

Anvisningar: Återigen, fundera över de orimliga/oönskade tankar som du markerat på föregående sida. Var vänlig att markera huruvida någon av dessa tankar har fått dig att ägna dig åt någon eller några av nedanstående handlingar eller strategier.

Fick någon av dina påträngande tankar dig att…	*JA*	*NEJ*	*TIDIGARE*
1. Ge dig själv försäkring eller intala dig själv om att allt är okej?			
2. Lägga tid på att försöka rättfärdiga eller förstå tanken?			
3. Kolla till barnet oftare?			
4. Distrahera dig med andra aktiviteter?			
5. Distrahera dig med andra tankar?			
6. Försöka trycka undan den oönskade tanken så fort som möjligt?			
7. Undvika situationer som kan innebära att tanken dyker upp?			
8. Exempel på situationer:			
9. Undvika ditt barn?			
10. Söka stöd, till exempel genom att prata med din partner eller din förälder?			
11. Fråga andra om tankarna är ”okej” eller ”normala”?			
12. Att erkänna för andra att du har dessa tankar?			
13. Be till gud om tankarna?			
14. Andra handlingar/strategier som du använder för att hantera tankarna?			
15. Exempel på andra handlingar/strategier:			

På nästa sida ställs frågor om strategier och andra aktiviteter som du har markerat med ”JA” på den här sidan. Titta igenom svaren som du markerat med ”JA” och fortsätt sedan besvara frågorna på nästa sida.

Anvisningar: Var vänlig och besvara följande frågor om de handlingar eller strategier som du på föregående sida markerade att du använder dig av. Ha den SENASTE VECKAN i åtanke när du besvarar frågorna. Välj ett alternativ under varje fråga.

1. Hur mycket tid lägger du på att utföra dessa handlingar/ strategier? Hur ofta använder du dem som ett svar på oönskade tankar? (Ta hänsyn till både antalet gånger och hur mycket tid som går åt).

0 = Ingen

1 = Mindre än en timme per dag eller vid enstaka tillfällen

2 = 1 till 3 timmar per dag eller vid ett flertal tillfällen

3 = 3 till 8 timmar per dag eller vid många tillfällen

4 = Mer än 8 timmar om dagen eller i princip hela tiden

2. Hur mycket påverkar dessa handlingar/strategier hur du fungerar i familjen, på fritiden eller på jobbet (eller annan roll)? Finns det saker du inte kan göra på grund av dessa handlingar/strategier?

0 = Inget

1 = De stör lite grann, men överlag är jag inte begränsad

2 = De stör absolut, men går fortfarande att hantera

3 = De orsakar stora problem i hur jag fungerar

4 = De gör mig oförmögen att fungera

3. Hur skulle du uppleva att bli förhindrad att utföra dessa handlingar/strategier när du känner att du behöver utföra dem? Hur mycket obehag/ångest skulle du då känna?

0 = Ingen

1 = Inte alltför störande

2 = Störande men fortfarande hanterbart

3 = Mycket störande

4 = Ihållande och kraftigt störande ångest

4. Hur stor ansträngning gör du för att stå emot att utföra dessa handlingar/strategier?

0 = Jag gör alltid ett försök att motstå eller så behöver jag inte anstränga mig

1 = Jag försöker oftast motstå

2 = Jag gör vissa ansträngningar att motstå

3 = Jag ger efter för mina rädslor, utan att försöka motstå, men gör det motvilligt

4 = Jag ger helt och fullt efter för mina rädslor

Hur stark är driften att utföra dessa strategier när du drabbas av en oönskad tanke? Hur stor kontroll har du över handlingarna/strategierna?

0 = Total kontroll

1 = Jag kan ofta stoppa eller avleda handlingarna/strategierna

2 = Jag kan ibland jag stoppa eller avleda handlingarna/strategierna

3 = Jag lyckas sällan avleda eller stoppa handlingarna/strategierna

4 = Behovet av att utföra handlingen/strategin är övervältigande – jag lyckas sällan ens skjuta upp handlingen/strategin tillfälligt