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A Survey of Social Difficulties in Adults with ADHD and their Relationship to Symptom Severity and Quality of Life

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Master thesis, Science Program in Psychology. 2018

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Abstract

The aims of this study were to survey a sample of Swedish adults with self-reported ADHD and to investigate: 1) the extent of their reported impairments in social functioning and the relationship between these and the severity of their ADHD symptoms, comorbid symptoms of anxiety and depression, psychological flexibility and ADHD-specific quality of life (QoL); 2) investigate whether the participants had ever been offered treatment involving social skills training and whether they think they would benefit from such treatment; and 3) the extent to which the participant's QoL was impacted by social impairments. A total of 273 adults (aged 18-73 years) answered an online survey posted on ADHD -interest groups on Facebook. The survey included questions designed by the author/supervisor to assess social impairments and standardized measures of ADHD, anxiety, depression, ADHD-specific QoL, and psychological inflexibility. The results of the survey indicated that participants tended to agree more than disagree on experiencing social impairments as a result of their ADHD, and the extent of these impairments was significantly correlated with their levels of ADHD, anxiety, depression, QoL and psychological inflexibility. The social skills impairment significantly contributed to the variance in QoL even after controlling for the other variables. Of note, very few participants reported receiving any kind of treatment involving social skills training but the majority thought that such treatment would have been helpful and want such treatments. The social interactions of adults with ADHD suffer from as a result of these symptoms, which in turn is related to their overall quality of life. Treatments addressing this form of impairment in this population warrant investigation.

Keywords: Attention Deficit Hyperactivity Disorder, ADHD, ASRS, Hyperactivity, Inattention, AAQoL, Quality of Life, HADS, Anxiety, Depression, SST, Social- skill deficits, Social functioning, AAQ-II, Psychological Flexibility.

Sammanfattning

Det övergripande syftet med denna studie var att undersöka ett urval av vuxna med självrapporterad ADHD i Sverige och 1) undersöka i vilken utsträckning de rapporterar sociala svårigheter och förhållandet mellan dessa svårigheter, svårighetsgraden av deras ADHD symtom, symtom på ångest och depression, nivån av psykologisk flexibilitet och deras självrapporterade livskvalitet; 2) undersöka utbudet av social färdighetsträning och hur pass hjälpsam en sådan behandling uppskattades av deltagarna, samt 3) i vilken utsträckning deltagarnas självskattade livskvalitet påverkades av sociala svårigheter, efter att ha kontrollerat svårighetsgraden av ADHD-symtom, ångest, depression och psykologisk flexibilitet. Urvalet bestod av 273 vuxna (18-73 år), som besvarade ett frågeformulär som publicerades i relevanta intressegrupper på Facebook. Information insamlades genom; validerade självskattningsskalor, demografiska frågor, frågor beträffande erfarenheter av social färdighetsträning, skattad och upplevd hjälp av social färdighetsträning samt frågor berörande brister i social funktion. Deltagarna skattade brister i sociala funktion och bristerna korrelerade med poängen på självskattningsskalorna, som var måttligt till starkt korrelerade med varandra. Endast ett fåtal deltagarna hade fått någon form av social färdighetsträning men majoriteten ansåg att en sådan behandling skulle ha varit till hjälp och uttryckte en önskan om att få ta del av en sådan behandling.

Resultaten från denna studie har givit en antydning om att social färdighetsträning skulle kunna vara till nytta för vuxna med ADHD och deras subjektiva välbefinnande. Mer forskning skulle behövas för att undersöka orsakerna och de bakomliggande mekanismerna för att skapa en socialfärdighetstränings metod för personer med ADHD.

Nyckelord: Attention Deficit Hyperactivity Disorder, ADHD, ASRS, Hyperaktivitet, Ouppmärksamhet, AAQoL, Livskvalitet, HADS, Ångest, Depression, SST, Sociala skillnader, Social funktion, AAQ-II, Psykologisk flexibilitet.

Acknowledgments

I would like to dedicate my grateful appreciation to the participants of this study and the support given by the administrators in the Face book interest groups and pages for helping me reach the participants. A summary of the results of this study will be presented to the Facebook pages and groups involved in the study. I would also extend my great thanks to my supervisor Sean Perrin.

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Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is viewed primarily as a neurological syndrome that makes focusing on everyday tasks and routines challenging (Barkley, 2003; Hellström, 2011). For an adult or adolescent to meet the DSM-5 criteria for diagnosis, he or she must have experienced at least five symptoms from two clusters: attention deficits and hyperactivity/impulsivity, dividing the syndrome into three different subtypes; ADHD Predominantly Inattentive Presentation (ADHD-PI), ADHD Predominantly Hyperactive-Impulsive Presentation (ADHD-PHI), and ADHD Combined Presentation (Inattentive & Hyperactive-Impulsive) (ADHD-C) (American Psychiatric Association, 2013). Throughout this thesis, the acronym ADHD will be used to incorporate all subtypes unless explicitly stated otherwise. In addition, the symptoms must have been present in more than two environmental settings, such as work, school, friends or at home, been experienced for at least six months, have started to manifest before the age of 12, and cause a negative impact on the persons everyday life, including the reduction in the quality of social, academical or occupational functioning is needed to support the diagnosis (APA, 2013). Finally, the symptoms should not be better explained by another mental disorder (APA, 2013).

Individuals with ADHD suffer from higher rates of comorbidity, significant increased health related challenges, and increased health-care usage, as well as higher rates of accidental injury and death (Brod, Pohlman, Lasser & Hodgkins, 2012). ADHD is associated with difficulties in emotional and behavioral control, including poor social relationships and hasty decision making, having an impact on socioeconomic domains, including family and school (Barkley, 2003). ADHD can have a significant impact on social functioning in family matters as well as in school and work environments, and thus interventions involving social skills training (SST) may be of particular relevance to individuals with this condition (Greene, Biederman, Faraone, Sienna, & Garcia-Jetton, 1997; Hellström, 2011).

In the next section, a brief introduction to the diagnosis, prevalence, symptoms, duration, comorbidity, and recommended treatment in Sweden will be presented, as well as a short review of previous research in relation to social impairments, SST, and ADHD. This is followed by a brief introduction to the measurement of Quality of Life (QoL) in individuals with ADHD, and psychological flexibility, a variable that has been found to moderate the relationship between mental health and health problems and QoL. Finally, the research questions are presented.

Prevalence, etiology, symptoms, onset and comorbidity

Prevalence. According to a recent meta analysis, the global prevalence of ADHD in children is about 7.2% and in Sweden is around 5% (Rae, Sanders, Doust, Beller, & Glasziou, 2015; Socialstyrelsen, 2014). The prevalence of ADHD in adults worldwide is approximately 3.4% (Kessler et al., 2005). In both children and adults, ADHD is much more common among males than females. According to a recently conducted research across 10 European countries, the prevalence among males was found to be 1.6 times higher than for females and findings from a study on 3,199 adults with ADHD seeking medical help, showed that 38% of them were women and 62% were men (Fayyad et al. 2007; Nøvik et al., 2006). Findings in another study, suggests that one of the reasons for the higher prevalence among males is because there is a greater number of undiagnosed females with the syndrome (Deberdt et al., 2015). According to a recent metanalysis (Polanczyk, Willcutt, Salum, Kieling, & Rohde, 2014), when regarding geographical location and variability in prevalence of ADHD, no links have been established, after standardized diagnostic procedures have been undertaken. The variability in prevalence was not connected to what year the study was conducted and the authors concluded that there has been no increase in the prevalence of children who meet the criteria for ADHD when standardized assessment procedures are used (Polanczyk et al., 2014).

Etiology and Risk factors. Twin studies have shown heritability rates for ADHD of around 71–90% (Faraone et al., 2005). Nevertheless, heredity is not the only risk factor for ADHD; biological and environmental aspects interplay with each other, altering the probability of exposure to environmental misfortunes, and modifying the individual's sensitivity to environmental risk and protective factors (Thapar, Cooper, Eyre, & Langley, 2013). People with ADHD are greatly increased risk of experiencing impairments in all socioeconomic domains (Barkley, 2014; Brod, Pohlman, Lasser & Hodgkins, 2012). At the same time, research suggest a strong connection between family functioning and ADHD symptoms, meaning that children from homes with poor family functioning were more frequently screened for ADHD symptoms (Cussen et al., 2012). In addition, there are findings suggesting that socioeconomic status plays an important part in the development of ADHD. Results from a longitudinal study conducted in the USA, showed a higher prevalence in children with a diagnosis of ADHD at age seven in families that were either struggling with financial difficulties, living in government housing, or containing younger or single mothers (Russell, Ford, & Russell 2015). On the other hand, it is likely that the mothers also had

ADHD traits, since the prevalence of ADHD in first degree relatives of people with the syndrome is 2-8 times larger than relatives of non-ADHD controls (Faraone et al., 2005).

DSM-5 Symptoms. The cardinal features are inattention, impulsivity and hyperactivity which might manifest themselves in various ways including difficulties getting organized, staying focused and sustaining attention on tasks and activities (APA, 2013). Additional examples are difficulties in making and following through realistic plans, adapting to situational changes and hasty decision making, failure in giving close attention to detail and making careless mistakes (APA, 2013; Hellström, 2011). People with ADHD might experience difficulties in following through on instructions and fail to finish schoolwork or workplace duties. They might also avoid engaging in tasks that require sustained mental effort and have a tendency to lose things necessary for tasks or activities and being forgetful in daily routines. People with ADHD may also be perceived as fidgety, noisy and always "on the go" (APA, 2013). In addition, people with ADHD might be interpreted as if they do not seem to listen when spoken to directly and may also get easily distracted by extraneous stimuli, leave seat in situations when remaining seated is expected and experience feelings of restlessness (APA, 2013). Finally, there are several symptoms that either directly or indirectly affect social interactions, for instance blurting out answers before a question has been completed, being unable to play or engage in leisure activities quietly, having difficulty waiting their turn, excessive talking and interrupting others (de Boo, & Prins, 2007; Hellström, 2011), and general difficulties with emotion regulation (Philipsen et al., 2008).

Onset and duration. According to the DSM-5, for a diagnosis to be assigned, there must be some evidence of ADHD symptoms manifesting before 12 years of age (APA 2013). Thus, ADHD is usually diagnosed in school-aged children but is not considered to be a childhood condition as the symptoms frequently persist into adulthood (Biederman, Petty, Evans, Small, & Faraone, 2010). There is research showing that more than half of the children with ADHD carrying clinically significant symptoms into adulthood (Faraone, Biederman & Mick, 2006).

Comorbidity. There is substantial evidence that people with ADHD run a significantly heightened risk of psychiatric comorbidity (Fayyad et al., 2007). When it comes to comorbidity in children, previous research has shown that the most prevalent comorbid disorder was conduct disorder (16.5%) followed by specific developmental disorders of language, learning and motor skills (15.4%), autism spectrum disorder (12.4%), and intellectual disability (7.9%) (Jensen & Steinhausen, 2015). According to another study made

on children, the rates for comorbidity with oppositional defiant disorder (ODD) and conduct disorder (CD) range from 30 to 50% in ADHD samples. Thus, the author suggest that, due to the very high levels of comorbidity, ADHD might rather be a group of conditions, than a single homogeneous clinical essence. In these terms, the conditions might differ regarding aetiology, risk factors and prospects (Spencer, 2006).

According to studies on children, depression is also a frequent comorbidity and depressed children with ADHD were significantly less socially competent than children with ADHD who were not depressed or community controls (Blackman, Ostrander & Herman, 2005). In addition, there is evidence suggesting that that children with ADHD are more likely to develop comorbid personality disorders as adults (Smith & Samuel, 2017). According to a 16-26 year longitudinal study of children with ADHD and normal controls, those with ADHD were at increased risk of developing borderline, antisocial, avoidant, and narcissistic personality disorders in adulthood (Miller, Flory, Miller, Harty, Newcorn, & Halperin, 2008). Previous findings suggest that the prevalence of personality disorders in the general population is about 10%, compared to as much as 25 % in samples with ADHD, with the most common being avoidant personality disorder (21.7%) and borderline personality disorder (18.3%) (Smith et al, 2017). Another study assessed childhood and adult ADHD symptoms in a group of women seeking treatment for borderline personality disorder (Philipsen et al., 2008) and found a high rate of childhood (41.5%) and adult (16.1%) ADHD symptoms.

ADHD has only recently been considered a valid diagnosis for adults and the research on clarification and differentiation between ADHD and other psychiatric disorders is in an early stage (McIntosh, Kutcher, Binder, Levitt, Fallu, & Rosenbluth, 2009). There has been some research made on the subject of ADHD and depression. Biederman and colleagues explored this topic by following 123 young females with ADHD and 122 female controls in a five- year follow- up study. In the ADHD sample, the prevalence of Major Depressive disorder (MDD) was 40.7%, compared to 11% in the control group. At the time of the follow-up point, 65% of females with ADHD had MDD compared to 20.5% of controls (Biederman et al., 2008).

In a study conducted on adults, the results showed that adults with ADHD were 2.7 to 7.5 times more prone to suffer from mood disorders, including major depressive disorder 1.5 to 5.5 times for anxiety disorders, including generalized anxiety disorder, social- and specific phobias, 1.5 to 7.9 times for substance use disorders, and 3.7 times for intermittent explosive

disorder, than the general population (Kessler et al., 2006). Other research supports the results as it highlights a spectrum of comorbid conditions overlapping with adult ADHD and possibly mimicking its symptoms, including personality-, anxiety-, mood-, substance use-, learning-, and sleep disorders. The symptoms of these comorbid conditions that can be subjected to mimic those of ADHD, include hyperactivity, impulsivity, inattention, and disruption of circadian rhythms, adding complexity to making the recognition of ADHD in adults. (Kooij et al., 2012). Some research also suggest correlation between the symptom severity in ADHD and comorbidity. The more severe ADHD is, the more likely the person is to suffer from various comorbid conditions. (Adler, Spencer, Stein, & Newcorn, 2008).

When it comes to the prevalence of comorbid disorders and gender, research has shown that the risk of psychiatric comorbidity is equal among males and females with ADHD (Biederman et al., 2006, 2010). There has been a large twin study performed in Sweden that explored differences when it comes to comorbidity between the two ADHD types (Inattentive and combined subtypes). According to the study, it turns out that people with the combined hyperactive-inattentive impulsive subtype of ADHD had a higher risk of comorbid disorders than people with the inattentive only one subtype (Friedrichs, Igl, Larsson, & Larsson, 2012).

Since there are limitations in the literature explaining the clarification in the relationship between ADHD and comorbid conditions, including anxiety and depression in adults (McIntosh et. al., 2009), along with research pointing towards a connection between social difficulties and this kind of comorbidity in children (Blackman et. al., 2005), arises the reason to control and asses for these conditions in the current research.

Quality of Life (QoL)

QoL is a subjective perception of functioning and levels of wellbeing, in the domains of mental health and non-clinical aspects, including illness, independent living, social relationships, physical senses and psychological wellbeing (Hawthorne, Richardson, & Osborne, 1999). There are both general QoL and condition-specific QoL measures. The generic QoL measures evaluate the general wellbeing of an individual derived from their rated satisfaction or dissatisfaction within functional areas that are considered important for QoL (Brod, Perwien, Adler, Spencer, & Johnston, 2005). The condition-specific QoL measures assess how much impact particular symptoms have on the general wellbeing and functioning of the individual. Psychiatric disorders broadly and/or particular symptoms, including those of ADHD, are known to have a negative impact on a person's sense of wellbeing (Agarwal,

Goldenberg, Perry & Ishak, 2012; Brod, Johnston, Able, & Swindle, 2006; Coghill, 2010). Indeed, people with ADHD have been found to score between 1.5 and 2 standard deviations below the general population on QoL measures, and to manifest a visible effect in the domains of psychosocial functioning and achievement (Coghill, 2010). As individual with ADHD frequently have comorbidity, it is possible that their lower levels of QoL are linked to this comorbidity. However, studies have shown that even after comorbid disorders have been treated and/or controlled for, adults with ADHD still experience significantly lower psychological wellbeing and QoL than non-ADHD controls (Bernardi et al., 2012).

Social difficulties and social skills

Ever since the Russian psychologist Lev Vygotsky, established the Social Development Theory, the importance of everyday social interaction to the learning of social skills has been recognized (McLeod, 2014). In the case of ADHD, it recognized that the symptoms of ADHD can impair the social interactions of children with this disorder and this in turn may hinder the development of social skills (Barkley, 2003; Hellström, 2011). A cardinal symptom of ADHD is hyperactivity that can manifest in difficulties sitting down in social and learning situations, creating the tendency to leave gatherings and social activities, and this can negatively affect the development of social skills over the long-term (Brod et al., 2005; Hellström, 2011). In addition, children with ADHD are known to engage in “clowning” around, disruptive, noisy and rule-violating behaviors, interrupting others, all of which can end up in excessive talking that is poorly perceived by other children and adults (de Boo, 2007; Hellström, 2011). Indeed, research shows that children with ADHD are at greatly increased risk of both peer-rejection and peer neglect (Barkley, 2003; Hellström, 2011; Hoza et al., 2005).

The inattentive symptoms of ADHD are also known to negatively affect the social interactions of children with ADHD. Children with the inattentive type of ADHD show elevated levels of anxiety, shyness, and withdrawal compared to children with the hyperactive subtype of the disorder, and non-clinical controls, which together diminish the frequency of interaction with others (Barkley, 2003; Hodgens, Cole, & Boldizar, 2000; Maedgen & Carlson, 2010; Milich, Balentine, & Lynam, 2001). There is evidence that people with the inattentive subtype suffer from peer rejection more than non-clinical controls (Pope, Bierman, & Mumma, 1991). Inattention and a dreamy, passive, and slow style of behavior might be

seen as different in the eyes of peers and play a role in social rejection by peers and adults alike (Pope, et al., 1991; Carlson & Mann, 2000).

Children with Autistic Spectrum Disorders (ASD) have core difficulties in understanding social cues, and developing and maintaining social relationships (Föreningen Sveriges Habiliteringschefer, 2004). Children with ADHD have high rates of comorbidity with ASD, and even without ASD exhibit similar social deficits (Constantino & Todd, 2003, 2005). Research has shown that amongst young people with ADHD, in contrary to those with ASD, they commonly do know how to act in social situations but simply fail to act upon that knowledge, due to cognitive deficits, inattention, impulsivity as well as affective factors and thereby need helping tools to behave accordingly to their knowledge of social skills (Constantino & Todd, 2003, 2005). For this reason, specially adapted method to train and develop social skills in youths with ADHD have been recommended although rarely developed or offered (de Boo, 2007; Constantino & Todd, 2005, 2003; Föreningen Sveriges Habiliteringschefer, 2004).

In summary, given the cardinal symptoms of ADHD and their impact on social functioning, it is not surprising that research has shown that both children and adults with untreated ADHD have markedly poorer social outcomes than non-ADHD control groups (Barkley, 2003; Harpin, Mazzone, Raynaud, Kahle & Hodgkins, 2016). Social outcomes in this latter study were indexed by disruption to familial relationships as well social interactions in the domains of work and school, social activities, living arrangements, dating and marital history, and sexual behavior. What is less known is how the ADHD symptoms impact specific aspects of social functioning or social skills, particularly in adults with ADHD. Likewise, little is known about how the social impairments that arise because of ADHD symptoms impact upon QoL, separate from the core symptoms of ADHD themselves or any psychiatric comorbidity. Thus, there is an important gap in the literature to be addressed.

Treatment recommendations for adults with ADHD

Swedish national guidelines. The Swedish guidelines for the treatment of adults with ADHD recommend psychosocial support in combination with specialized supports and treatment. The specialized supports and treatment include individual or group based psychoeducational information and training for the affected individual and his or her relatives. In school/university settings, such supports also involve extra tuition for exams, help with taking class notes, extra time with a supervisor, a lower study-tempo, and more accessible and

individualized course literature-plans. Adults with ADHD in Sweden should also be offered pharmaceutical treatments, cognitive behavioral therapy (CBT), and “cognitive” supports, including helping-tools, a permanent-care contact, a written careplan, and follow-up assessments as necessary. Finally, adults with ADHD should be offered social supports at home and in the workplace, financial assistance and budget advice, personal support in the form of a contact person, and support and treatment in case of substance abuse or addiction (Socialstyrelsen, 2014).

International guidelines. Regarding international treatment guidelines for adults with ADHD, it is recommended for the therapist to be flexible, demonstrative and engaged in their clients, in contrast to the neutrality required in some forms of psychotherapy (Geffen & Foster, 2018). Regarding the nature of the treatment, multi-modal treatments, combining psychosocial and pharmaceutical treatments are recommended. The non-pharmacological therapies include ADHD-specific psychoeducation for patients and their families, CBT adapted to the needs of people with ADHD, exercise, and coaching (Geffen et al., 2018). Additionally, individuals with ADHD should also be offered treatments that target comorbidity including substance use disorders, depression and anxiety. Regarding the monitoring of symptoms and treatment effectiveness, it is recommended to use the Adult ADHD Symptom Rating Scale (ASRS) (Geffen et al., 2018).

Previous research on social skill training as a form of psychological treatment

Most research on the topic of social skill training (SST) for people with ADHD is made on children. Social skills training is the most common intervention when it comes to social problems in children, and there is evidence for it being an effective way to treat children with aggressive and antisocial behaviors, but the results for children with learning disabilities, ADHD and children with internalizing disorders have been less prominent (de Boo, 2007). Accordingly, there are yet no well-established interventions specific for children with ADHD (de Boo, 2007). In a metaanalysis on the topic, six different studies containing social skill training with cognitive-behavioral elements for children with ADHD were reviewed (de Boo, 2007). The candidate mediators (mechanisms) were social cognitive skills, parenting style, and medication-induced reduction of key symptoms. Candidate moderators (factors) that were discussed were different subtypes of ADHD, comorbidity, gender and age. The results showed that four out of the six analyzed SST studies showed positive effect in the social domain of children with ADHD (de Boo, 2007). Regarding the hypothetical mediators

for change, both social skills improvement and improved parenting style were not supported. The third mediator, medication- induced reduction of key symptoms showed a significant effect on social skills and behavior (de Boo, 2007).

The authors argued that the cause of insignificant results in parenting style might have been because of the limitations in the program, because there has been support for a link between negative parenting style and social skills in a mediator analysis of a comprehensive intervention program (de Boo, 2007). Yet, findings in this study pointed out the key symptoms of ADHD as mainly responsible for poor social performance in children with ADHD. The theory derived from the results was that social behavior might be improved indirectly by the improvement of self-control and emotional regulation. When it comes to moderators, ADHD subtypes and comorbidity turned out to be the factors that had significant impact and should be considered in further research on the subject, in order to evaluate their influence on the effectiveness of the treatment (de Boo, 2007). The data on age and gender as moderators, was too limited to make up any scientific assumptions. The conclusion of this metaanalysis was that more research is needed to create well established social skill training interventions, adjusted to the specific needs of children with ADHD (de Boo, 2007).

In another meta-analysis, 10 trials were reviewed in order to investigate the effects of social skill training for children and adolescents with ADHD (Storebø et al., 2011). All trials were based on cognitive-behavioral treatments but the treatments were not homogeneous. Some of the interventions included parental training, some included reinforcement techniques, others used more cognitive techniques, whilst some of the trials used themes as problem-solving and emotional regulation, for each session. The findings did not show any significant effect on social skills competences, general behavior and ADHD symptoms amongst children and adolescents in the ratings made by teachers (Storebø et al., 2011). The only results supporting social skills training were those rated by parents, even though the same outcomes rated by teachers did not show any significant effect. The authors argue that parents might be biased but at the same time know their children best and are more prone to notice small changes than teachers that are supposed to rate one child in a class of 40 pupils (Storebø et al., 2011). The participants, teachers and parents rated the interventions as positive and would recommend it to others. In conclusion, the beneficial effects treatments including social skill training were inconclusive and social skills training could neither be recommended nor refuted based on the results from this study and the authors recommended further research on the topic (Storebø et al., 2011).

In an older review, costs and effectiveness of different interventions, including social skill training for children and adolescents were examined (Kavale, Mathur, Forness, Rutherford, & Quinn, 1999). The results were not significant but that did not keep the author from making the conclusion that the cost of not teaching social skills, would be extremely high. There is evidence that the failure in developing social skills and strategies used in different kinds of social situations, might lead to various impairments in the long run, including mental health and delinquency problems. The author argues that social skill training success depends on various factors, that might vary depending on the circumstance and deficits targeted, and that those need to be investigated further before writing off the effects of social skill training, claiming that social skill training should be refined and customized—certainly not eliminated (Kavale, et al., 1999).

There is also research evaluating the effects of combined treatments. One of the studies examines the effects of treatment with methylphenidate only in comparison to treatment with methylphenidate combined with 10 weeks of multi-modal behavior therapy, suggesting no significant difference between those two (Van der Oord, Prins, Oosterlaan, & Emmelkamp, 2008). The multi-modal behavior therapy included social skill training as one component out of many, making it impossible to draw any assumptions about the effect of social skill training on its own (Van der Oord, 2008). Another study reviewed the impact of combined psychosocial and pharmaceutical treatment for children with ADHD (Majewicz-Hefley, 2007). The results were positive regarding the categories of inattention, hyperactivity, impulsivity, social skills, and academics. The effect sizes for the combined treatment were higher compared to pharmaceutical treatments only, that showed a large effect size on their own, accordingly to a meta-analysis reviewing pharmaceutical treatments only (Faraone & Biederman, 2002; Majewicz-Hefley, 2007). In another study, a competence-building, integrated model, involving home and school was reviewed. The method contained strategies based on attachment theory, learning theory and ecological/system theory, where social skills training was included. The results showed that the method was effective in the treatment of ADHD/ADD symptoms and the improvement of social skills (Lefler, Mautone, & Power, 2011). Based on these research studies, the conclusion points to social skills training integrated in other treatments being a potentially successful model of treatment for adolescents with ADHD. The studies indicate that social skills training has a positive effect on ADHD symptoms and highlight the impact of social skills and the development of learning abilities and general prosperity in terms of symptoms reduction, social skills improvement and

better school performance. They also speak for a better self-esteem that also correlates with a generally better wellbeing, prosperity and reduction of ADHD related problems (Hinshaw, S. P., et al., 2014). On the other hand, it is not possible to determine how much improvement in social performance as well as other positive changes were caused by social skills training alone by examining the effects of integrated models. At the same time, in some of the results, the effects of social skill training were inconclusive, and studies that investigated models consisting of social skills training or in the context of parental training did not yield significant results (Lefler, et al., 2011; Van der Oord, 2008).

Social skills as a stand-alone intervention for adults with ADHD has not been reported upon in the literature. However, treatment programs based on dialectical behavior therapy (DBT), a form of CBT, and incorporating elements of social skills training have begun to be evaluated in adults with ADHD. There is previous research supporting that interventions derived from CBT/DBT help to reduce the negative impact of ADHD symptoms on the individual's overall functioning, as indexed by self-esteem, social difficulties, and quality of life. One study assessed the benefits of a CBT/DBT approach by conducting a one-year program including mindfulness and other forms of emotion regulation training and distress tolerance, and interventions aimed at increasing interpersonal effectiveness (Cole et al., 2016). The treatment showed significant beneficial effects in most dimensions, including the reduction of symptoms, increases in interpersonal Effectiveness and QoL. Most prominent were the results regarding depression and symptom severity, as well as mindfulness skills. The authors concluded that the results support the use of both individual and group-based DBT/CBT interventions for adults with ADHD, particularly those who may be less responsive to pharmaceutical treatment (Cole et al., 2016). In summary, despite evidence that ADHD persists into adulthood and impairs social functioning, very little has been done to develop treatments that target social skills in adults with this condition. Also, little is known about whether adults with ADHD would view such treatment as beneficial. Thus more research is needed to determine what if any experience of treatments involving social skills training have adults with ADHD received, and to what extent they found these treatments helpful, or would view such treatments as helpful if they have not receive them.

Psychological flexibility

Psychological Flexibility (PF) refers to the ability to conduct behaviors that are in line with one's long-term goals in valued areas of life, despite the presence of unpleasant thoughts,

emotions and physical sensations that give rise to impulses to avoid these experiences (Hayes, Strosahl, & Wilson, 2012). PF can be viewed as the opposite of experiential avoidance, i.e. the person retains the willingness and ability to stay in the present moment, in touch with and open to conscious contact with thoughts, feelings, and sensory experiences, even if they bring the individual discomfort (Hayes et al., 2012). PF has been described as a “fundamental aspect” of psychological and physical health, which acts as a buffer against the effects of stress and illness and is associated with higher levels of subjective wellbeing and QoL (Kashdan, 2010). According to various research, there is a connection between PF and the severity of different forms of psychopathology; individuals with low PF (often termed psychological *inflexibility*) tend to have more severe symptoms and higher levels of functional impairment (Chawla & Ostafin, 2007). After searching the literature, I was unable to find any studies investigating the relationship between PF and the severity of ADHD or ADHD-specific QoL in either children or adults, and this study aims to help fill this gap in literature.

Aims and summary

As previously stated, ADHD is viewed as a neurodevelopmental disorder, usually having its first onset (of symptoms or the disorder) during childhood, persisting into adulthood and affecting approximately 7% of the global population, and associated with high levels of comorbidity, significant impairments in all aspects of functioning (including social), and decreased QoL (APA, 2013; Barkley, 2003; Brod et al., 2005; Coghill, 2010; de Boo et al., 2007; Fayyad, 2007; Harpin et al., 2016; Hellström, 2011). However, the extent to which social difficulties are related to the severity of ADHD symptoms and QoL in adults remains under-investigated. The overall aims of this research are threefold: 1) to investigate the extent to which Swedish adults with ADHD report difficulties in social functioning and the relationship between these impairments and the severity of their ADHD symptoms, comorbid symptoms of anxiety and depression, psychological flexibility and their QoL; 2) to investigate the extent to which Swedish adults have ever been offered any form of treatment involving social skills training and whether they think they would benefit from such treatment; and 3) to what extent the participant’s QoL is being predicted by social difficulties, after controlling for the severity of ADHD symptoms, Anxiety, Depression, Psychological Flexibility.

Research questions

1. To what extent do participants feel that their ADHD impairs their social functioning?
2. To what extent have participants been offered social skills training, and to what extent have the participants perceived social skills training helpful and would they have desired more of such training?
3. To what extent are social difficulties, correlated with the severity of ADHD, Anxiety, Depression, QoL, and Psychological Flexibility?
4. To what extent is the participant's QoL predicted by social difficulties, after controlling for the severity of ADHD symptoms, Anxiety, Depression, Psychological Flexibility?

Method

Design and procedure

To strengthen the aims and justifications for the study, a review of the literature on ADHD/ADD, psychological flexibility, quality of life and social skills training for people with ADHD was made. The articles were found through LUB Search and through references in previously reviewed articles. Also, material for parents with children that have ADHD, used for educational purposes in Swedish healthcare, in Socialstyrelsens guidelines regarding treatment of ADHD, and guidelines regarding treatment for children with autism and guidelines for treatment of Borderline Personality Disorder were considered in the review.

After the review, it was decided to undertake a cross-sectional, online survey of people self-identifying with ADHD, and incorporating: 1) questions created by the author about sociodemographic and clinical experiences specific to ADHD; 2) questions created by the author based on several items from a longer, existing social skills measure (not specific to ADHD); and 3) standardized self-report measures of ADHD symptoms/QoL, anxiety and depression, and psychological inflexibility (see Appendix A). The survey was posted online from 2018-02-22 to 2018-04-18 on Swedish Facebook-pages and groups of interests for adults with ADHD and ADD. The decision to use an online survey was based on an assumption, including previous online surveys conducted by my supervisor, that: 1) it is possible to sample Swedish adults who suffer from symptoms or a diagnosis of ADHD through online support pages; and 2) a survey in this manner would yield enough participants to have sufficient statistical power to address the research questions. Inclusion criteria for the study was age ≥ 18 years of age with self-identified ADHD (any subtype) and giving informed consent to proceed with the survey. All participants were told that they could

discontinue the survey at any time, and it was assumed that people who did discontinue may have chosen to do so or had a problem with their link to the survey.

A total of 20 interest groups and pages were approached by contacting the administrators of the pages and groups in private messages, asking for permission to post the survey on their pages. Out of the 20 page and group administrators that were contacted, 10 group administrators responded and gave permission to post the questionnaire in their groups. Two group administrators declined and two did not reply. The ones that did not reply were contacted one more time after a week had passed but did not reply and were not contacted again. Among page administrators, the number that accepted the proposal to post on their pages was four. None declined, but two did not reply. They were contacted one more time after a week had passed but failed to reply and were not contacted again. The pages that were contacted had between 3,463 and 49,425 followers, whilst the groups reporting actual “membership” had between 41 and 4,061 members. From an initial stage, the survey was also posted on my own Facebook page and shared by friends. In attempt to increase the response rate, several reminders were posted, with a few days up to a week passing in between the reminders on the ADHD/ADD interest pages and groups during the period that the survey was online.

Participants

A total of 421 people initiated the survey after giving informed consent, with 145 people failing to complete the survey, leaving a final sample of 276 participants who completed the whole survey. Three of these 276 participants reported being below 18 years of age and were excluded from further analyses. Thus the final number of participants was 273. There were no significant differences between the people who initiated but did not complete the survey, and those who did, in terms of gender.

Of the 273 participants, 193 (70.7%) were female, 79 (28.9%) were male, and one (0.4%) identified as “other”. The participants ranged in age from 18 to 73 years with a mean of 37.76 years. The majority were between 28 and 51 years of age, with 40% between 28 and 40 years and 30% between 41 and 51 years of age. Only 8.8% of the participants were above 51 years old. Regarding marital status, 32.6% were single, 62.3% were in a relationship, and 5.1% reported their marital status as “other”. Regarding living situation, slightly more than half were living with a partner, about one third were living alone, and 8% lived with parents or in a collective. A large proportion (38.5%) reported not having any children, while 61.5%

had one or more children. Nearly half (46.9%) of the participants had children living at home with them. Regarding education level, 13.6% had finished elementary school, 32.6% had finished high school, 14% had started but not finished a post-gymnasium education, 8.1% were currently studying any kind of post-gymnasium education, 19.4% were university undergrads, 7% had masters or above, and 5% classified their educational level as “other”. Finally, regarding employment status, 29.3% worked full time, 14.3% part time, 12.5% were students, 22.7% were currently on sick-leave, 4.4% were pensioners and 8.1% classified their employment status as “other”.

Survey construction

In order to answer the research questions and simultaneously control for comorbid conditions, a survey form was created by using Easy Quest and included several standardized self-report questionnaires of ADHD, ADHD- related quality of life, anxiety, depression, and psychological flexibility. The respondents experience of difficulties in social situations, and whether they would benefit from training in social skills, were important variables of interest in this study. However, after a careful review of the literature and discussion with my supervisor, we were unable to identify a published questionnaire that assessed social difficulties that arose specifically because of ADHD. Likewise, we could not identify any self-report questionnaires of social skills that would be relevant to this population. Thus, based on literature that broadly defined the kinds of interference in social functioning caused by ADHD, and a 10-item scale (described below) was created to assess this variable.

The survey began with the informed consent question, which was followed by background questions regarding demographic characteristics (i.e., age, gender, employment status, level of education, marital status, living situation, whether or not they have children and if so, if the children are currently living with them). These were followed by questions related to their having ADHD (i.e., whether a formal diagnosis of ADHD has been made by a health professional, age at time of ADHD diagnosis or if they had been assessed for the diagnosis, and if so, at what age). This was followed by questions about treatment history for ADHD, in particular, whether or not they had been offered, received, were satisfied, or thought they would benefit from psycho-pharmacological or psychological treatments for ADHD. The list of treatments given was based on those currently offered in Sweden according to government guidelines. To this list, we added specific questions about whether the participant had been offered or thought they would benefit from social skills training for

their ADHD. This section of the survey was followed by questions regarding psychiatric comorbidity, including diagnostic and treatment history. Finally, the respondents were presented with the standardized self-report measures (described below), in the following order: ASRS, AAQoL, HADS, and AAQ-II.

Measures

World Health Organisation ADHD Self-Report Scale (ASRS; Kessler et al., 2005) is a screening tool with 18 items used to assess the DSM-IV symptoms (APA, 2000) of attention-deficit/hyperactivity disorder (ADHD) in adults in the general population. The ASRS is comprised of two sub-scales reflecting symptoms of Hyperactivity/Impulsivity (Cluster A; 6 items) and Inattention (Cluster B; 12 items). Respondents are asked to read each item and then using a 4-point scale (0 = Never, 1 = Rarely, 2 = Sometimes, 3 = Often, and 4 = Very Often) to report the frequency of that symptom over the past six months. A score higher than 17 points on either Cluster A or Cluster B is strongly suggesting the presence of a current diagnosis of ADHD/ADD, with scores above 24 suggesting a diagnosis is very probable. A Swedish-language version of the ASRS is made available for free use by the authors (<https://www.hcp.med.harvard.edu/ncs/asrs.php>). The ASRS has been found to possess good psychometric properties in both the English (Cronbach's alpha 0.88) and Swedish-language versions, and to correlate significantly with alternative measures of ADHD including diagnostic interviews (Adler et al., 2006; Kessler et al., 2005; Söderström, Pettersson & Nilsson, 2014).

Adult ADHD Quality of Life Questionnaire (AAQoL; Brod, et al., 2006) is a 29-item measure derived from previous research on the impact of ADHD (specifically) on the functioning and quality of life (QoL) of adults with the disorder. The AAQoL assesses functioning in five areas; work, daily activities, relationships, psychological wellbeing, and physical wellbeing through four further sub scales: Life Productivity (11 items), Psychological Health (6 items), Life Outlook (7 items), and Relationships (5 items). All items are rated on a 5-point frequency scale, ranging from 1 (Not at all/Never) to 5 (Extremely/Very Often). All items are transformed to a percentile scale (1=0; 2=25; 3=50; 4=75; 5=100) and total scores for the whole scale and sub scales calculated by adding all items together and dividing by the by the number of answered items. Higher scores indicate higher QoL (Gjervan & Nordahl, 2010).

The AAQoL has good internal consistency and validity according to psychometric evaluation in both 2006 and 2015 (Brod et al., 2006; Brod et al., 2015). Cronbach's alphas were 0.93 for the whole scale and the sub scales ranged between 0.75 for Relationships and 0.88 for Productivity, and can thereby be considered as a valid measure of quality of life for adults with ADHD (Brod et al., 2006). Research also points to the conclusion that the ADHD specific QoL scale correlates more strongly with measures of treatment outcome and psychological wellbeing in ADHD samples than other non-ADHD specific QoL scales (Matza, Johnston, Faries, Malley & Brod, 2007). Additionally, it has been found that the AAQoL is effective in identifying important domains in an individual's life that can be used to target possible areas for change in psychological treatment (Gjervan & Nordahl, 2010; Brod et al., 2006). The AAQoL was translated from English to Swedish in previous research, following guidelines for translation recommended in literature and by the WHO (Beaton, Bombardier, Guillemin & Ferraz, 2000).

Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith 1983) is a 14-item measure designed to detect clinical levels of anxiety, depression and emotional distress among patients treated for various reasons. The HADS is comprised of an anxiety and depression sub scales (7 items each). Each item is rated on a 0-3 scale where 3 indicates higher symptom frequencies over the past week. The total scores for each sub scale ranges from 0 to 21, with the following categorizations; normal anxiety/depression = 0-7; mild anxiety/depression = 8-10; moderate anxiety/depression = 11-14; and severe anxiety/depression = 15-21. The HADS has been translated into Swedish and is widely available. In both the English language and Swedish versions, the HADS has been found to have good psychometric properties and to correlate well with alternative measures of anxiety, depression, general functioning, and to be sensitive to the effects of treatment (Mykletun, Stordal, & Dahl, 2001; Lisspers, Nygren, & Soederman, 1997). Cronbach's alpha for HADS-Anxiety had a mean of .83 and for HADS-Depression had a mean of .82 and is thereby seen as a reliable tool to measure symptom severity and prevalence of anxiety disorders and depression in both somatic and psychiatric patients as well as in the general population (Bjelland et al., 2002).

Acceptance and Action Questionnaire (AAQ-II; Bond, et al., 2011) is a 7-item measure of psychological inflexibility or experiential avoidance. The items of the AAQ-II are rated on 7-point scale (0 = Never True, 6 = Always True). A single total score is computed that ranges from 0 to 42; higher scores indicating greater levels of psychological inflexibility

(Bond et al., 2011). A Swedish version of the AAQ-II is made available by the authors via the Association for Contextual Behavioral Science (<https://contextualscience.org/>) and was used in this study. The English language and Swedish version of the AAQ-II have been found to possess good psychometric properties and to correlate with other measures of psychological flexibility, and with measures of symptoms and general functioning (Bond et al., 2011; Lundgren & Parling, 2017). The Cronbach's alpha for the AAQ-II, 7 item version is .84 (.78 - .88) and indicates a satisfactory structure of the measurement (Bond et al., 2011). The ASRS has high internal consistency. Cronbach's alpha of 0.88. The sub-scales showed similar consistency, ranging between 0.88 and 0.89 on Cronbach's alpha. The measure can thereby be considered as a reliable measure of self-assessed ADHD symptoms (Adler et al., 2006).

Social Difficulties. Since there is no standardized self-report measurement of social-skill deficits nor difficulties relevant to people with ADHD, 10 items were created by the author and the supervisor for the purposes of this survey. The 10 items were as following:

- 1) I experience difficulties communicating my thoughts and feelings to others.
- 2) I experience that others have difficulties understanding thoughts and feelings I'm trying to communicate.
- 3) I experience difficulties understanding what others expect from me in social situations.
- 4) I experience difficulties in knowing when it is my turn to talk in a conversation.
- 5) I have having trouble listening to others when they talk to me
- 6) I experience difficulties in establishing and maintaining social relationships
- 7) I experience that what I say or do is often perceived as impulsive and unpredictable in social situations
- 8) I experience difficulties being part of a group in social and/or work-related situations
- 9) I find that others have difficulties in maintaining social relationships with me
- 10) Do you think it would be helpful for you to receive any kind of treatment/training that teaches you how to reduce any negative effects of your ADHD symptoms on your relationships with others?

For items 1-9, the participants were then asked to rate the degree to which they agreed with each statement on a 0-3 point scale (0 = Disagree/Undecided, 1 = Slightly agree, 2 = Strongly agree, and 3 = Totally agree). Item 10 that aimed to measure the perceived helpfulness of any treatment targeting social difficulties from ADHD; with participants choosing between the following responses: 0 = No/Undecided, 1 = Yes, especially when I was

young, and 2 = Yes. There was no a priori plan to use the 10 items as a “new scale” measuring a particular construct, rather the purpose was to assess the extent to which the participants experienced social difficulties possibly derived from their ADHD (first 9 items) and whether social skills training would be perceived as helpful (item 10). The answers were normally distributed after being checked for normality. Yet in order to control for internal consistency, responses to the first 9 items were subjected to a principal component analysis. All items had most correlations of variables above 0.3 in the correlation matrix, and were thereby not excluded from the analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.797 and the individual items ranged between 0.774 and 0.886, meaning that the sample was adequate for factor analysis. Bartlett's Test of Sphericity was significant at $p < 0.0005$. When it comes to explaining the proportion of the variance of the variable by the extracted factor structure, all variables were above 0.4 regarding commonalities, ranging from .44- .61. Only two of the components have eigenvalues over 1.00 and these components explain 54% of the variance in the data. The first component explains more of the variance than the second component (33% versus 21%). That is, when it is assumed that there are two components, we can predict 54% of the information in all the 9 variables. The chosen factors should explain 70 to 80% of your variance at least, meaning that dividing the items into two components is not recommended (Ehrenberg, 1981; Fabrigar, Wegener, MacCallum, & Strahan, 1999; Tabachnick & Fidell, 2001). Further, a reliability analysis was made, to control for internal consistency reliability, making sure that the measure assess common characteristics, resulting in Cronbach's alpha of 0.82 for the 9 items- scale. A good measure should have a Cronbach's alpha of at least .60 and preferably closer to .90 (Aron, Aron & Coups, 2013).

Data Analysis

The data were downloaded from the survey and then uploaded into SPSS. Frequency and Descriptives commands were used to examine the range of responses to individual items to check for errors, missing data, and outliers. Owing to the way that the survey was constructed so that participants could not proceed without entering a response, there was no missing data. Inspection of the total scores on the standardized questionnaires revealed no statistical outliers and the data were roughly normally distributed. No transformation of the raw data was carried out and a mixture of parametric and non-parametric statistics were used depending upon the type of variables used in the analyses.

Ethical considerations

The research aims to survey people with ADHD or ADD, that were at least 18 years old, in which all participants will be in agreement with “Lag om etikprövning av forskning som avser människor” (SFS 2003:460). The research concerned questions about the participant's health that could be seen as "treatment of sensitive data" from the “Personuppgiftslagen p. 1.f, Hälsa” but participation will be done anonymously and the information that comes from the survey will be of that kind of nature that a connection to any specific individual will not be possible. In other words, the data provided cannot be considered "sensitive data" as they cannot be linked to any individual and thus are not personal. Thus, application to a regional ethical committee was not needed. Nevertheless, the research design was vetted and approved by my supervisor and the course leader (SFS 1998:204).

According to “Lag om etikprövning av forskning som avser människor”, participants must be informed of the content and purpose of the study prior to participation, which shall be voluntary with consent. Participants can withdraw at any time and should be made aware of this option. Thus, the publications I made on Facebook started with a presentation of myself as a psychology student with name and contact details, as well as a brief presentation of the study and its purpose. The survey also started with the above-mentioned information. In order to ensure that consent was given, each participant had to answer a question were informed consent was given before they could proceed to the next question in the survey. In addition to this question, they were also informed that participation was voluntary and that they could withdraw from the study at any time (SFS 2003:460).

A study according to the Swedish law, should as far as it is possible not jeopardize the well-being of the participants, and the benefit of the study should be greater than the risks of injury that a participation in the study could bring the individual. As the survey and its questions are constructed based on already established forms, except the social skill questions, there do not seem to be any significant risks with the participation. Participants have been informed that they could contact me via email and I would provide further information about the questions and direct them to local services or other forms of support if needed (SFS 2003:460).

The study aims to explore whether social skills training is wanted and needed among adults with ADHD. That knowledge may serve as the basis for further research regarding the realization of establishing a standardized, effective social skill training method especially

adapted to the needs of people with ADHD. A secondary aim is to evaluate the extent to which self-reported social skill deficits correlated with the severity of ADHD, ADHD- related Quality of Life, anxiety, depression, and psychological flexibility. The development of a social skill training method specific to adults with ADHD may be of benefit to their ADHD and overall functioning. Thus, there are several utility aspects included in the study (Swedish Research Council, 2002).

Results

Diagnostic and clinical characteristics of the sample

Table 1 provides information about the diagnostic characteristics of the sample in form of whether or not they have been assessed or diagnosed with ADHD, ADD or any comorbid problems by a health care professional and whether or not any of the comorbid problems are still present, regardless if they have been diagnosed/assessed and despite possible treatment attempts. ADHD- related problems and symptoms will be presented together with the results from the self- report measures.

As can be seen, the majority (94.2%) reported being diagnosed with either ADHD or ADD by a mental health professional. The most frequent comorbid conditions were depression, followed by anxiety and Post traumatic Stress Disorder (PTSD), and some form of pain (migraine, neck pain or other pain). Not reported in the table; 82.1% of the participants reported being diagnosed with ADHD or ADD as an adult, although the DSM-5 criteria indicate that the symptoms should have been present during childhood. Finally, 82.7% of the participants reported that they were currently receiving treatment for either ADHD or ADD.

Table 1. Diagnostic information for the 273 participants.

Diagnosis Type (N)	Current Diagnosis		Assessed by Professional		Currently Causing Problems	
	%	N	%	N	%	N
ADHD	65.6	179	NA		NA	
ADD	28.6	78	NA		NA	
ADHD/ADD	94.2	257	94.5	258	NA	
Learning Disabilities / Dyslexia	11.4	31	3.3	9	23.1	63
Autistic Spectrum Disorder	9.9	27	12.1	33	23.4	64
Behavior Problem	6.6	18	4.4	12	20.5	56

Anxiety / PTSD	33.3	91	7.7	21	38.1	104
Tics / Tourette's	3.3	9	2.9	8	16.5	45
Sleeping disorder	21.2	58	9.5	26	43.2	118
Depression	45.1	123	14.3	39	28.8	65
PMS / Dysphoria	5.5	15	1.5	4	19.4	53
Bipolar Disorder	7.3	20	9.2	25	13.9	38
BPD / Other PD	8.4	23	4.0	11	10.3	28
Alcohol/ Substance Abuse	10.3	28	4.0	11	10.6	29
Schizophrenia	0	0	1.5	4	1.8	5
Eating Disorder	7.7	21	2.9	8	20.9	57
Migraine/ Other Pain	25.6	70	5.1	14	31.9	87
Cancer	1.5	4	0.7	2	1.1	3
Diabetes/ Kidney Problems	3.3	9	0.7	2	1.5	4
High Blood-Pressure / Cardiovascular disease	12.5	34	8.1	22	5.1	14

Note. ADHD = Attention-deficit Hyperactivity Disorder, ADD = Attention-deficit Disorder, BPD = Borderline Personality Disorder, PD = Personality Disorder, PMS = Premenstrual syndrome, PTSD = Post traumatic stress syndrome, ASD = Autism Spectrum Disorder, HADS = Hospital Anxiety and Depression Scale.

Table 2 provides information on the participants' experience of treatment for their ADHD. As can be seen, 72% of the participants had previously received or were currently receiving medication for ADHD. The next most frequent treatment was some form of face-to-face CBT. Receipt of other treatments, including social skills training was extremely low.

Table 2. Participant's experience of specific treatments for ADHD.

Treatment Type (N)	Participants' Responses to Questions About Treatment for ADHD									
	Offered /		Received /		Currently		Not Offered /		Not Offered /	
	Not in		Not		in		Want		Don't Want	
	Treatment		Currently in		Treatment		Treatment		Treatment	
	%	N	%	N	%	N	%	N	%	N
Medication	11.4	31	22.0	60	50.2	137	11.4	31	5.1	14
CBT	7.0	19	22.3	61	5.5	15	54.6	149	10.6	29
iCBT	1.8	5	1.8	5	.7	2	44.7	122	50.9	139
SST	2.2	6	5.5	15	1.1	3	48.7	133	42.5	116
FT	3.7	10	6.6	18	.7	2	53.8	147	35.2	96
GT	9.2	25	17.6	48	3.3	9	38.1	104	31.9	87
PDT	1.5	4	9.5	26	4.0	11	60.4	165	24.5	67
Counseling	4.4	12	15.0	41	13.6	37	55.3	151	11.7	32
Mindfulness	3.7	10	19.4	53	2.9	8	50.9	139	23.1	63
Psycho- education	9.9	27	26.4	72	2.9	8	47.3	129	13.6	37
Parental Support	5.9	16	6.2	17	0.7	2	49.5	135	37.7	103

Note. CBT = Cognitive Behavioral Therapy, iCBT = Internet Based Cognitive Behavioral Therapy, SST = Social skill training, FT = Family Therapy, PDT = Psycho Dynamic Therapy, GT = Group Therapy.

Table 3 presents the means, standard deviations, and ranges of scores for the self-report measures of ADHD (ASRS), anxiety (HADS-A), depression (HADS-D), ADHD-specific quality of life (AAQoL), and psychological flexibility (AAQ-II). According to the norms, a score ≥ 17 points on either the Hyperactivity or Inattention subscales of the ASRS suggest the current presence of an ADHD/ADD diagnosis, and a score ≥ 24 points suggest such a diagnosis is very probable if the person were to be interviewed in relation to the diagnostic criteria (Kessler et al., 2005). Consistent the fact that the majority of participants self-reported a diagnosis of ADHD/ADD made by a clinician, the means on both the Hyperactivity and Inattention sub scales were above 17 points, and the mean on the Inattention scales above 24 points. In relation to anxiety and depression, a score less than 7 indicates non- clinical cases on either one of HADS subscales (Whelan-Goodinson, Ponsford, & Schönberger, 2009). Scores between 8 and 10 indicate anxiety/depression of mild severity, 11-14 indicates moderate, and 15-21 severe anxiety/depression. As seen in Table 3, the participants' mean scores on the anxiety and depression subscales of the HADS were both above 7 points. There are no norms for the AAQoL; higher scores indicate higher QoL (Gjervan & Nordahl, 2010). However, a large study of adults with ADHD/ADD carried out in the European Union and United States reported a mean (Total) score on the AAQoL of 48 (SD = 14). The current sample reported a somewhat higher mean, suggesting a higher QoL. Finally, there are no norms for the measure of psychological flexibility (AAQ-II). However, for comparison purposes, a validation study including 275 American medical students reported a mean (Total) score for the AAQ-II of 14.81 (SD = 7.10) (Palladino et al., 2013). Remembering that higher scores indicate greater psychological *inflexibility* (i.e., lower psychological flexibility), the participants in this survey are reporting relatively higher levels of psychological inflexibility (M= 24.17, SD 9.32).

Table 3. Means, standard deviations, and ranges for the self-report measures of ADHD, ADHD- specific quality of life, anxiety, depression, and psychological inflexibility.

Measure	Mean	SD	Range	% above suggested clinical cut-off
ADHD Symptoms (ASRS)	48.77	8.84	18-69	NA
Hyperactivity Symptoms (ASRS)	22.41	5.59	5-35	85.0%
Inattention Symptoms (ASRS)	26.36	4.96	5-36	95.7%
Anxiety (HADS-A)	11.32	4.06	0-21	81.3%
Depression (HADS-D)	9.8	4.81	1--21	57.5%
Total AAQoL	57.87	15.67	9-92	NA
Psychological Health (AAQoL)	63.61	18.52	8-100	NA
Relationships (AAQoL)	55.13	20.02	0-100	NA
Life Outlook (AAQoL)	57.29	18.26	4-100	NA
Life Productivity (AAQoL)	55.44	18.95	5-98	NA
Psychological Inflexibility (AAQ-II)	24.17	9.32	1-42	NA

Note. ASRS = Adult ADHD Self Report Scale, HADS = Hospital Anxiety and Depression Scale, AAQoL = Adult Attention Deficit Hyperactivity Disorder Quality of Life, AAQ-II = Acceptance and Action Questionnaire.

Research Question 1: To what extent do participants feel that their ADHD impairs their social functioning?

To address this question, the 9 survey items created to assess social difficulties in adults with ADHD were analyzed. Table 4 presents the mean and standard deviations for each individual item, as well as for the total score for the 9 items combined. The possible outcome scores on the 9 items ranged between 0-27 with higher scores indicating greater social difficulties. As can be seen from the table, the participant’s tended to agree more than disagree that their ADHD symptoms interfered with various aspects of their social functioning. The scores were normally distributed with a M= 14.81 and SD 5.56.

Research Question 2: To what extent have participants been offered social skills training, and to what extent have the participants perceived social skills training helpful and would they have desired more of such training?

The first part of the answer to this question appears in Table 2 in the row labeled SST (Social Skills Training). Table 5 reports the participant’s responses to whether social skills training would be considered helpful. As can be seen, less than 10% had been offered some form of social skills training, with nearly half of all participants desiring that kind of intervention, and the majority believing that such interventions would be helpful. Finally, and not reported in the table, the participants were asked whether *any* kind of treatment/training

that would teach them how to reduce negative effects of their ADHD symptoms on their relationships with others would be helpful. The responses were as follows: Yes = 38.5% (N= 105); Yes, when I was young = 45.1% (N= 123); and No/Undecided = 16.5% (N= 45).

Table 4. Participant's responses to questions about treatments involving the experience of social-skill training.

Treatment Status	Offered, not currently in treatment	Participants' Responses		
		Currently in treatment	Not offered, want treatment	Not offered, don't want treatment
%	7.7	1.1	48.7	42.5
N	21	3	133	116

Table 5. Participant's responses to questions about ratings of expected helpfulness of social-skill training.

Helpfulness Ratings	Participants' Responses regarding expected helpfulness of social skill training		
	Undecided	Not helpful	Helpful
%	21.2	21.6	57.2
N	58	59	156

Research Question 3: To what extent are social difficulties correlated with the severity of ADHD, anxiety, depression, QoL, and psychological inflexibility?

Table 6 presents the Pearson pairwise correlation coefficients between the sum of the participant's responses to the 9 social difficulties items and total scores on the standardized measures of hyperactivity and inattentiveness symptoms (ASRS), anxiety and depression (HADS-A/D), ADHD-related QoL (AAQoL), and psychological inflexibility (AAQ-II). As can be seen, participants who reported greater levels of social difficulties also reported more symptoms of ADHD/ADD, anxiety, depression and greater levels of psychological inflexibility and lower ADHD- related quality of life. The correlations were in the moderate to large range. Of additional interest, psychological inflexibility was significantly correlated with inattentive symptoms but not hyperactivity symptoms but was significantly correlated with ADHD-related quality of life overall.

Table 6. Pearson pairwise correlation coefficients for total scores on the measures of social difficulties, hyperactivity, inattention, ADHD-specific QoL, anxiety, depression, and psychological flexibility.

	Pearson Pairwise Correlation Coefficients						
	1	2	3	4	5	6	7
1. Social Difficulties	-						
2. Hyperactivity Symptoms (ASRS)	.455**	-					
3. Inattention Symptoms(ASRS)	.473**	.400**	-				
4. Anxiety (HADS-A)	.347**	.253**	.266**	-			
5. Depression (HADS-D)	.368**	.039	.285**	.516**	-		
6. Quality of Life (AAQoL)	.520**	.172**	.467**	.605**	.721**	-	
7. Psychological Inflexibility (AAQ-II)	.454**	.098	.268**	.644**	.608**	.651**	-

Note. ASRS = Adult ADHD Self Report Scale. HADS = Hospital Anxiety and Depression Scale. AAQoL = Adult Attention Deficit Hyperactivity Disorder Quality of Life. AAQ-II = Acceptance and Action Questionnaire. **Correlation is significant at the 0.01 level (2-tailed)

Research Question 4: To what extent is the participant’s QoL predicted by social difficulties, after controlling for the severity of ADHD symptoms, anxiety, depression, and psychological inflexibility?

To address this question, a linear regression analysis was undertaken with total scores on the AAQoL as the dependent variable, and the independent variables (in block order) as follows: total scores on the ASRS Hyperactivity sub-scale; total scores on the ASRS Inattentiveness subscale; total scores on the HADS-Anxiety subscale; total scores on the HADS-Depression subscale; total scores on AAQ-II (Model 1); and total score on the 9 social difficulties items (Model 2). Table 7 presents the total explained variance in ADHD-specific QoL (R^2) and the F-change statistic and accompanying p-value for the different models. The overall F (df, df) statistic for the two combined models was 96.33 (6, 266), which was significant ($p = .005$). As can be seen, the six variables together accounted for 68.5% of the variance in ADHD-specific QoL. After controlling for the severity of ADHD, anxiety, depression, and psychological inflexibility, social difficulties still contributed to a small but significant proportion of the total variance in QoL. Not reported in the table, the β weights for the independent variables and accompanying p-values for the T-statistics were as follows:

Hyperactivity ($\beta = -.187, p .114$), Inattention ($\beta = .648, p < .005$), Anxiety ($\beta = .79, p < .005$), Depression ($\beta = 1.336, p < .005$), Psychological Inflexibility ($\beta = .246, p < .005$), Social Skills deficits ($\beta = .462, p < .005$).

Table 7. Table 7. Results of linear regression analysis showing the influence of hyperactivity, inattentiveness, anxiety, depression, psychological inflexibility and social difficulties on ADHD-specific Quality of Life.

Variables in the Model (DV = Total Score on AAQoL)	b	SE	Beta	R ²
1. Self- report measures				.670
ASRS Hyperactivity	-.028	.111	-.010	
ASRS Inattention	.767	.127	.243**	
HADS Anxiety	.737	.188	.191**	
HADS Depression	1.406	.150	.432**	
AAQ- II	.337	.086	.201**	
2. Self- report measures including Social Difficulties				.685
ASRS Hyperactivity	-.187	.118	-.067	
ASRS Inattention	.648	.129	.205**	
HADS Anxiety	.790	.184	.205**	
HADS Depression	1.336	.148	.411**	
AAQ- II	.246	.088	.146*	
Social Difficulties	.462	.129	.164**	

Note. ASRS = Adult ADHD Self Report Scale, HADS = Hospital Anxiety and Depression Scale, AAQoL = Adult Attention Deficit Hyperactivity Disorder Quality of Life, AAQ-II = Acceptance and Action Questionnaire. Significance level = * $p < .05$, ** $p < .01$. R2 change when social difficulties is added at Step 2 is .015 ($p < .01$).

Discussion

The aim of this study was to survey a large sample of Swedish adults with self-reported ADHD and to examine the extent of social impairments arising from this condition, their experience of treatments involving social skills training, and the relationship between social impairments and QoL. A secondary aim was to investigate the relationship between social impairments and the severity of ADHD, anxiety, depression, psychological inflexibility and QoL. The study aimed thereby also to provide an indication for whether social skills training-based treatments for adults with ADHD should be developed. Before turning to the

individual research questions, I will briefly talk about the characteristics of the participants as this is relevant to the external validity of the research design employed, aiming to serve as a control of variables that might have an impact on the results and thereby, the representativeness of the sample.

Characteristics of the participants

Consistent with expectations the sampling procedure yielded a large number of adult participants (N = 273) who were self-identified with ADHD or ADD. 94.2% were diagnosed with either ADHD or ADD by a (mental) health professional. The part of the population that were not diagnosed still reported ADHD-related problems and were therefore not excluded from the final sample. Consistent with this being a genuine “clinical” sample, scores on the standardized measure of ADHD (ASRS) fell in the clinical range. The most frequent diagnosed comorbid conditions were depression followed by anxiety and Post-traumatic Stress Disorder (PTSD). Further evidence of this being a genuine clinical sample, scored in the clinical range on the measure anxiety and depression (HADS) as well. At the same time, there were other comorbid problems that were less diagnosed but experienced by the participants including sleeping difficulties. Lack of sleep is known to have negative impacts on emotion regulation and other executive functions (Tucker, Whitney, Belenky, Hinson, & Van Dongen, 2010), that are also impaired in individuals with ADHD (APA, 2013; Philipsen et al. 2008). Lack of sleep is also associated with low mood and depression (Tsuno, Besset, & Ritchie, 2005). The participants also reported relatively high scores on the AAQoL, particularly the Psychological Health subscale, which is consistent with the clinical nature of the sample. Again, higher scores on the AAQoL signify a *lower* quality of life owing to ADHD symptoms.

It is important to note that a majority of the participants reported being diagnosed with ADHD/ADD as an adult. This is interesting because the DSM-5 criteria (APA, 2013) say that at least some symptoms of the disorder must be present in youth. The finding from this survey can be interpreted several (not necessarily exclusive) ways. First, it is possible that the adult diagnoses received by the participants are “false positives” and the participants in fact suffer from some other condition. There is some evidence from a longitudinal study of 239 American youth who were initially selected at age 10 years because they had no psychiatric problems at all, that late-onset ADHD is rare and often the result of a misdiagnosis (Sibley et al., 2016). However, a much larger population-representative twin study carried out in the UK

found that late-onset ADHD occurs in approximately 6% of the population (Agnew-Blais et al., 2016). Second, it is possible that the participants suffered from symptoms of ADHD/ADD that went undetected during their childhood. While it is widely believed that ADHD is over-diagnosed in children and adolescents, this has never been tested in any study. The closest study to inform on this belief is a study of 1000 mental health professionals in Germany (Bruchmuller, Margraf, & Schneider, 2012). The authors found that the therapists rarely adhered to the diagnostic guidelines when assigning ADHD/ADD diagnoses based on written case vignettes and tended to underdiagnose girls relative to boys. The majority of participants in this sample were women, and perhaps this gender proportion is reflected in them being under-diagnosed with ADHD/ADD as youth.

In terms of treatment, the majority of participants had been offered one of the Swedish guideline recommended treatments. The most common treatments were medication for ADHD, psycho-education and some form of face-to-face CBT. Still, it is important to point out, that despite this treatment, the participants scored above the clinical thresholds on the measures of ADHD, anxiety and depression. Consistent with expectation given the vagueness of Swedish guidelines and the paucity of research on social skills training for adults with ADHD, few of the participants reported having experience of any formal social skills training as part of their treatment for ADHD, which means that few participants gave ratings about the effectiveness such treatments. It is also fair to assume that since few participants had received social skills training, that this in turn influenced their beliefs about whether or not such treatment might be helpful.

Research Question 1: To what extent do participants feel that their ADHD impairs their social functioning? I was not able to find a standardized or validated measure of social difficulties nor social -skill deficits for the purpose of this study. Instead, looking at the literature and in conversation with my supervisor who has long experience of clinical research on individuals with ADHD, I generated 9 items that tapped ways in which ADHD symptoms might be expected to interfere with social functioning. It is important to state that the questions do not assess specific social skills, rather the impairments in social functioning or possible social difficulties experienced by the individuals. The results from these items suggested that the participants tended to agree more than disagree that their ADHD symptoms caused significant interference in various aspects of their social functioning. These findings are consistent with previous research pointing towards a heightened tendency of social-

deficits among the ADHD population (Barkley, 2003; de Boo, 2007). At the same time, it is important to note that the measure itself has not been validated, meaning that the results should mostly be seen as an indication that the population experiences some form of social difficulties/impairments from their ADHD.

Research Question 2: To what extent have participants been offered social skills training, and to what extent have the participants perceived social skill training as helpful and would they have desired more of such training? Less than 10% of the participants received or were currently receiving social skill training, which is not surprising considering that there are no guidelines in Sweden recommending this kind of treatment (Socialstyrelsen, 2014). However, nearly half desired such interventions, and the majority believed that such interventions would be helpful. The subjective perception of the helpfulness of social skills training by this group might not necessarily mean that this kind of training would actually be helpful. Yet the study points to the possibility that adults with ADHD in Sweden would like to receive more social skills training and studies are needed to develop and test such approaches with this population. The participants also stated that they would have liked to receive a treatment reducing negative effects of ADHD symptoms on social relationships in adult life but especially in childhood. Treatments involving social skills training for youth with ADHD have been developed and there a few clinical trials. Further testing in a Swedish context may be warranted.

The participants also stated that they would like to receive many other kinds of treatments, including PDT, Counseling, CBT, Family Therapy and Mindfulness. At the same time, the participant's scores on the self- rating ADHD measure were in the clinical range, even though the majority (82.7%) received some form of treatment for their ADHD. The most frequent treatment was medication (72.2%) followed by psycho education (29.3%) and some kind of face- to face CBT (28.8 %). These findings suggest that the treatments they are receiving might be insufficient and that the population desires more diverse treatments, including some form of social- skill training aiming to reduce social difficulties.

Research Question 3: To what extent are social difficulties correlated with the severity of ADHD, Anxiety, Depression, QoL, and Psychological Flexibility? The present findings suggest that social difficulties are moderately related to the severity of ADHD- symptoms, anxiety, depression, QoL and psychological inflexibility. Since the measure used to asses

social difficulties has not been validated, the correlations regarding this variable should be seen as a suggestion. The strongest correlation was between social difficulties and QoL, which is not surprising considering that some of the questions on the Relationship subscale of the AAQoL might slightly overlap with the social difficulties questions that I created. Still the present findings are consistent with previous research suggesting that ADHD has significant impacts on social functioning, and this in turn may negatively impact quality of life (Barkley, 2003; Coghill, 2010; Harpin et al., 2016). According to previous research, social isolation and low social functioning contribute to loneliness (the subjective feeling of being alone) and is suggested to be linked to network size, social engagement, and pro-social behavior. The study was conducted on a sample of people with BPD, suggesting that social network diversity and impairments in interpersonal communication were especially important regarding the experience of loneliness in this group (Liebke, 2017). Since some of the traits in BPD and ADHD, including impulsivity and deficits in emotional regulation overlap, and the prevalence of comorbidity is stated to be as high as 25 % in some ADHD samples, these findings might also apply to people with ADHD, which strengthens the reason to target these issues and possibly other comorbid psycho pathological features in therapeutic interventions (Liebke, 2017; Smith et al., 2017). Recent research made on a sample of elderly adults, with and without depression, goes in line with the results from both this research and the previous made by Liebke and colleagues. Findings showed a positive correlation between the quality of life and social- network, strengthening the belief that being social and being a part of a social network is important regarding the quality of life (Gallegos- Carilo, 2009).

Of interest, given the absence of research on the relationship between psychological flexibility and ADHD, was that psychological inflexibility was significantly correlated with the severity of inattentive but not the hyperactivity symptoms of ADHD. Perhaps this is because the hyperactivity symptoms are not perceived as particularly negative or aversive, while the inattentive symptoms are. A key aspect of psychological flexibility is that the person is able to persist in valued activities despite the presence of aversive psychological experiences. (Coghill, 2010) It is possible that inattentiveness is experienced as more aversive, and as a result the participants tend to engage in more behaviors to avoid situations that have high attentional demands. This form of avoidance would result in a higher score on the measure of psychological inflexibility that was used here. Further research is needed to explore this relationship, because consistent with previous research, scores on the psychological inflexibility measure were significantly associated with lower levels of ADHD-

specific QoL. Thus, treatments that aim to increase psychological flexibility, rather than reduce symptoms, may also be of some benefit to adults with ADHD.

Research Question 4: To what extent is the participant's QoL predicted by social difficulties, after controlling for the severity of ADHD symptoms, Anxiety, Depression and Psychological Flexibility? The results of the regression analyses indicate that social impairments from ADHD make a significant contribution to ADHD-specific QoL, even after controlling for the severity of other symptoms and levels of psychological inflexibility. Although the contribution was relatively small, it does add some further weight to the argument that interventions including some form of social skills training aiming to improve social difficulties are likely to be of benefit to adults with ADHD. These findings are thereby cohesive with previous research made on the benefits of social training and children, suggesting that children with ADHD could benefit from social skill training. Results from studies made on children with ADHD had small effect or were inconclusive. This fact did not keep the authors from drawing conclusions that this is still a very important area that needs to be addressed with further research. The authors suggested that the lack of significant effects could rather be due to the fact that there is yet no developed validated method for social skill training and that the examined methods simply were not effective, rather than the fact that an effective social skill training intervention would not be beneficial (de Boo, 2007; Kavale, et al., 1999). In the current study, the contribution of social difficulties to the ADHD-specific QoL was small, which could be the result of using a non validated measurement for social difficulties.

Of further importance, is the large percentage of the total variance in ADHD-specific quality of life that was explained in the regression analyses (69%). One way to interpret these findings is that treatments for adults with ADHD should of course target core symptoms of the disorder but would also benefit from interventions aimed at reducing symptoms of anxiety and depression and improving social interactions. As stated in previous research, adult ADHD has been recognized as a valid diagnosis quite recently, meaning that its comorbidity, overlapping symptoms and differentiation needs to be investigated further and taken into consideration when it comes to treatment options (McIntosh et al., 2009). It could be that a combination of interventions like those found in DBT would be best suited for this purpose (Lopez et al., 2018). Previous research supports that interventions drawn from CBT/DBT might help to reduce the negative impact of ADHD symptoms on the individual's overall functioning, including areas of self-esteem, social difficulties, and quality of life, concluding

that the results support the use of both individual and group-based DBT/CBT interventions for adults with ADHD, particularly those who may be less responsive to pharmaceutical treatment (Cole et al., 2016).

A recent meta-analysis by the Cochrane Collaboration of CBT treatments for adults with ADHD, concluded that the evidence in favor of such treatments was weak but that this was due to low quality of many of the studies (Lopez et al., 2018). The authors suggest that further better-designed and controlled treatment trials be undertaken to improve the efficacy of CBT-based approaches, including DBT, given that many adults refuse or do not benefit from medications for ADHD. Results from this study strengthen the authors arguments since the sample population did manifest a clinical score on both sub- scales of ASRS, although given medication, arising the question, that the medicine- dominated treatments they are receiving are insufficient.

Limitations

There are a few disadvantages using an online survey approach. It is not possible to be certain that the respondents understood all of the question or answered truthfully. Further research involving interviews where follow-up questions can be asked, and self-report measures administered, and the researcher can check with the respondent whether all items were understood.

The survey consisted out of 131 items in total, with 73 questions and sub- questions. It was quite long according to feedback from the participants since it took at very least 20 minutes to finish. Considering the key symptoms of ADHD, this might have been a problem for the participants and have had an effect on the respondent ratio. 421 people attempted the survey, but only 276 finished, meaning that there was a certain amount of people that dropped out. Attentional and executive difficulties might have played a role and it is possible the participants with the most severe ADHD- symptoms were not able to finish the survey. Also, participants with comorbid intellectual deficits. reading disorders or learning disabilities might have been discouraged from taking a part in an online survey, which can play a role in the representativeness of the sample and the general population with ADHD. All questions were mandatory, meaning that the participants were not able to go to the next question without answering the previous item. It was constructed this way in order to minimize the impact of inattention and impulsivity, however this could have also impacted the respondent's answers to questions and led some to drop-out of the survey, affecting the

validity of the responses and the representativeness of the sample that completed the whole survey.

It is difficult to say whether or not the sample has been representative of adults with ADHD in Sweden. First of all, even though there are various indications of ADHD- related impairment, in terms of scores on the ASRS questionnaire, level of social difficulties, Quality of Life and reported diagnosis, in the absence of clinical interviews, it is not possible to know the extent to which the participants are representative of the ADHD population. It is important to note, however, that the ASRS is widely used in epidemiological survey where no interviews are conducted, and it is recommended in the assessment of adults with ADHD in clinical and non-clinical settings (Adler et al., 2006). Still, the prevalence of diagnoses depends on the way they are assessed and the prevalence of self- reported ADHD problems are dependent upon the subjective perception of the individual, their current state/mood and other possible variables.

Regarding gender differences, there were 193 (70.7%) women and 79 (28.9%) men who submitted the survey. There were no gender differences in the population that attempted the survey and the population who completed the survey. Previous research shows that there are more men than women are typically diagnosed with ADHD (Deberdt et al., 2015; Fayyad et al., 2007). Some research suggest that one of the reasons might be that women are possibly being under diagnosed and that the differences in men and women with ADHD are relatively small, which means that the gender imbalance might not be of great importance for the external validity after all (Babinski et al., 2011; Deberdt et al., 2015).

The recruitment of the participants was made through pages and groups of interest on Facebook. This might exclude certain people from engaging in the survey and that the current sample may be over represented by a particular group of adults with ADHD. That would include participants that had the tendency to seek help or support for their problems on social forums of the Internet or were in any other way engaged on the topic of ADHD on various discussion forums and those who were frequent computer users. This might also affect the representation regarding age. 40% of the people in the sample were between 28 and 40 years old, 30% were between 41 and 51 years old. Only a few people over the age of 60 replied. It could be due to lesser prevalence of diagnosis in that age category or deficits in computer-knowledge and lesser Internet usage. The variation in occupation might not either be representative of people with ADHD in Sweden since only 29.3% worked full time and 22.7% were currently on sick-leave. In a survey from 2015, performed by “Riksförbundet

Attention” the amount of people getting full time compensation from the Swedish “Försäkringskassan” was 11% (Riksförbundet Attention, 2016).

Considering the aims of the study where mainly exploratory, a large and various extent of significance testing was made after the data had been collected, recoded and further analyzed. To minimize the risk of man made error in collecting and recoding the data, affecting the results of the research, data was collected, recoded and tested several times, in order to asses cohesive results.

The measures HADS, ASRS, AAQoL and AAQ-II all showed good reliability with Cronbach’s alpha scores ranging from .82 - .93, indicating good internal consistency which strengthens the statistical validity of the current study (Adler et al., 2006; Bjelland, Dahl, Haug, & Neckelmannet, 2002; Bond et al., 2011; Brod et al., 2006). Regarding the Social difficulties questions, there are no established, validated measures for self- assessment of social- skill deficits nor social difficulties. In order to get an indication of the deficits, 10 questions were constructed and conducted by the author and the authors supervisor. A principal component analysis and a reliability analysis was made in order to control for internal consistency resulting in a Cronbach’s alpha of 0.82. The questions have not been controlled for reliability nor validity in any other way. The measure has not been tested on an other group meaning there are no norms to consider in the interpretation of the scores. Thereby, the self-assessed social difficulties can only be used as an indication. Further research is needed to establish both internal and external consistency of the measure.

Conclusions and Future Directions

Swedish adults with self-reported ADHD reported social difficulties, according to the non validated measure used in the study. The results can there for only be used as an indication for correlations between the measured social difficulties and the variables scores derived from the validated measures. Based on these premises, the results indicate that social difficulties, are related to the severity of ADHD- symptoms, comorbid symptoms of anxiety and depression, and their QoL. While nearly all of the patients reported receiving some form of recommended treatments, scores on all symptoms levels were still in the clinical range. Consistent to some extent with expectations, few participants reported having been offered treatments involving social skills training but a majority thought such treatment would be helpful. The results of both correlation and regression analyses suggested that such treatments should be helpful, either through a direct reduction in social difficulties, or through their

effects on ADHD, or comorbid anxiety and depression. It is also possible that such treatments may derive their benefit from their impact on the trait-like phenomena of psychological flexibility, which has been shown in previous research to act as buffer between the effects of mental health and health problems and QoL (Kashdan, 2010). The current research did not assess social skills deficits but social difficulties. Further research is needed to establish what kinds of social skills deficits might be of relevance (if at all) to the social difficulties experienced by adults with ADHD and whether these are specific to ADHD or more or less influenced by comorbid conditions. A step in this direction would be to carry out qualitative interviews with adults who have ADHD and to ask them about their social skills and any particular impairments or deficits they might suffer. This information could be used to create a self-report measure that could then be validated and revised with a larger sample. Once a validated self-report measure of social skills, specific to individuals with ADHD was developed, it would be possible to administer this measure in clinical and non-clinical populations to examine how social skills deficits related to ADHD, comorbid conditions, QoL and psychological flexibility. Such a measure, if valid, might also prove to be useful in psychological treatment studies of adults with ADHD.

Practical Implications

The overall conclusion that emerges from the results in this research suggests that social-skill training might be beneficial for adults with ADHD, in terms of their QoL and self-assessed social skill deficits, even though no causal assumption can be drawn based on the data. Thereby, could an intervention targeting ADHD symptoms affecting social functioning, possibly have an impact on the quality of life for people with ADHD. In addition, levels of psychological flexibility, depression, anxiety, ADHD- symptoms and self- assessed social-skill deficits, showed levels of correlation with the ADHD- specific Quality of Life, suggesting that there is an interaction between these variables. More research is needed to explore the implications of these findings and possible causal relationships between QoL, social difficulties, ADHD- symptoms, psychological flexibility and levels of anxiety and depression in order to find they best way to address mechanism of change in a social- skill training method for people with ADHD. Regarding treatment history, 72% of the participants had previously received or were currently receiving medication for ADHD. The next most frequent treatment was CBT. Receipt of other treatments, including social skills training was extremely low. Yet, the participants' mean scores on the ADHD- symptom scale were above

the clinical cut- off point, correlating with self reported quality of life, which rises the question that the treatments they were currently receiving might be insufficient, thus strengthening the needs for more research regarding alternative treatments.

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Appendix A

Questionnaire

Hej!

Är du över 18 år och lider av Attention Deficit Disorder med eller utan hyperaktivitet (ADHD/ADD)?

Jag studerar till psykolog på Lunds universitet och bedriver forskning till min examensuppsats kring ADHD under handledning av Dr Sean Perrin. Min forskning består av en anonym enkät för unga och vuxna med ADHD/ADD som inte bör ta mer än 20 minuter att besvara.

Enkäten innehåller frågor om vilka typer av interventioner och stöd du fått för din ADHD/ADD, din nuvarande symtombild, och generell övergripande livskvalitet. Information från undersökningen kommer att användas för att förbättra kvaliteten och effektiviteten av stöd som ges till individer med ADHD/ADD inom den svenska hälso- och sjukvården.

Undersökningen är helt anonym och det går bra att avbryta deltagandet när som helst. Det går också bra att ta en paus så länge formuläret inte stängs.

Tack för din medverkan!

Vänliga hälsningar,

Paula Nickling, Psykologkandidat, Lunds universitet

Dr Sean Perrin, Docent, Institutionen för psykologi, Lunds universitet

*

1. Jag har tagit del av informationen om denna studie, är medveten om att svaren är anonyma och att jag kan avbryta när jag vill. Härmed samtycker jag till att delta i studien.

Ja

Demografiska frågor

2. Vilket år föddes du?

3. Vilket är ditt kön?

4. Vänligen välj ett av följande alternativ som bäst beskriver din nuvarande boendesituation

Bor med partner

Bor själv

Bor med vänner/i kollektiv

Bor med mina föräldrar

5. Hur skulle du beskriva din sociala status?

Singel

I parrelation

6. Hur många barn har du?

0

1

2

3

4

5

6+

7. Har du hemmavarande barn?

Ja

Nej

Delvis

8. Vänligen välj ett av följande alternativ som bäst beskriver din utbildningsnivå

Gymnasial utbildning

Påbörjad men ej slutförd eftergymnasial utbildning

Pågående eftergymnasial utbildning

Högskole-/Kandidatexamen

Masterexamen eller högre

9. Vänligen välj ett av följande alternativ som bäst beskriver din nuvarande arbetssituation

Heltidsanställd

Deltidsanställd

Student

Arbetssökande

Sjukskriven

Föräldraledig

Pensionär

Följande frågor syftar till att beskriva din medicinska historik

10. Har dina ADHD/ADD symptom blivit utredda av en legitimerad vårdgivare?

Ja

Nej

11. Om ja, hur gammal var du när du genomgick din utredning?

0 till 5

6 till 10

11 till 15

16 till 20

20 till 25

26 till 30

31 till 35

36 till 40

41 till 45

46 till 50

51 till 55

56 till 60

61 eller äldre

12. Har du fått en formell ADHD/ADD diagnos av en legitimerad vårdgivare?

Ja, ADHD

Ja, ADD

Nej

13. Om ja, hur gammal var du när du fick din diagnos?

0 till 5

6 till 10

11 till 15

16 till 20

20 till 25

26 till 30

31 till 35

36 till 40

41 till 45

46 till 50

51 till 55

56 till 60

61 eller äldre

14. Vänligen se över följande lista av behandlingar och interventioner som erbjuds personer

med ADHD/ADD inom Hälso- och sjukvården i Sverige. Kryssa i det alternativ som avspeglar din erfarenhet av behandlingen.

Blivit erbjuden behandling	Genomgått behandling	Genomgår behandlingen nu	Hade önskat/önsk ar få behandling
---	---------------------------------	---	--

**Medicinering, specifik för
behandling av ADHD/ADD
Föräldrautbildning/stöd
(Utbildning som dina föräldrar fick
när du var ung, i syfte att hjälpa
dig och dem i
bemötandet/hanteringen av din
ADHD/ADD)
Kognitiv Beteende Terapi
(Individuella samtal med en
psykolog, mellan fyra ögon, i syfte
att utveckla specifika strategier för
att minska frekvensen av dina
ADHD/ADD-symptom, och
syndromets negativa påverkan på
dina känslor och din övergripande
funktion)
Mindfulness Baserad Terapi
(Antingen som en separat
behandling eller som en del av en
KBT behandling där du fått möta
en psykolog, i syfte att lära dig att
använda mindfulnessövningar för
att hantera/överkomma negativa
effekter av ADHD/ADD)
Social färdighetsträning (Antingen
som en del av en annan behandling
eller i form av en separat**

behandling, i syfte att träna sociala färdigheter, ex hur man talar eller betar sig med andra för att minska de negativa effekterna av din ADHD/ADD i möten med andra människor)

Psykodynamisk terapi (Individuella samtal med en psykolog i syfte att lära sig hur kvaliteten på dina relationer med dina föräldrar och andra kan påverka dina känslor och din känsla av välbefinnande)

Familjeterapi (Samtal med terapeut och din familj, antingen i vuxen ålder eller när du var ung, i syfte att utveckla strategier för

hanteringen av din ADHD/ADD)

Stödjande rådgivning (individuella samtal med en terapeut med fokus på ditt mående och din funktionsnivå i syfte att hjälpa dig med att lösa några av dina svårigheter)

Internetbaserad KBT

Utbildningsinformation om

ADHD/ADD

15. Om du genomgått/genomgår följande behandling, vänligen kryssa i det alternativ som bäst beskriver hur hjälpsam behandlingen har varit för dig

				Ej fått	Ej fått	Ej fått	Ej fått
				behandli	behandli	behandli	behandlin
				ngen och	ngen och	ngen och	ngen och
				tror inte	tror den	tror den	tror den
				den hade	hade	hade	hade
				varit	varit lite	varit	varit
				hjälp	hjälp	måttligt	mycket
				hjälp	hjälp	hjälp	hjälp

**Medicinering,
specifik för
behandling av
ADD / ADHD
Föräldrautbildni
ng/stöd
(Utbildning som
dina föräldrar
fick när du var
ung, i syfte att
hjälpa dig och
dem i
bemötandet/hant
eringen av din
ADHD/ADD)
Kognitiv
Beteende Terapi
(Individuella
samtal med en
psykolog, mellan
fyra ögon, i syfte
att utveckla
specifika**

strategier för att minska frekvensen av dina ADHD/ADD-symptom, och syndromets negativa påverkan på dina känslor och din övergripande funktion)

Mindfulness

Baserad Terapi

(Antingen som en separat behandling eller som en del av en KBT behandling där du fått möta en psykolog, i syfte att lära dig att använda mindfulnessövningar för att hantera/överkomma negativa effekter av ADHD/ADD)

Social färdighetsträning

(Antingen som

en del av en
annan
behandling eller
i form av en
separat
behandling, i
syfte att träna
sociala
färdigheter, ex
hur man talar
eller beter sig
med andra för
att minska de
negativa
effekterna av din
ADHD/ADD i
möten med
andra
människor)
Psykodynamisk
terapi
(Individuella
samtal med en
psykolog i syfte
att lära sig hur
kvaliteten på
dina relationer
med dina
föräldrar och
andra kan
påverka dina
känslor och din
känsla av

välbefinnande)
Familjeterapi
(Samtal med
terapeut och din
familj, antingen i
vuxen ålder eller
när du var ung, i
syfte att utveckla
strategier för
hanteringen av
din
ADHD/ADD)
**Stödjande
rådgivning**
(individuella
samtal med en
terapeut med
fokus på ditt
mående och din
funktionsnivå i
syfte att hjälpa
dig med att lösa
några av dina
svårigheter)
**Internetbaserad
KBT**
**Utbildningsinfor
mation om
ADD/ADHD**

16. Hur skulle du beskriva den generella verksamhetsnivån av de olika
behandlingarna/interventionerna du fått av den svenska hälso- och sjukvården ?

Inte alls hjälpsam

Lite hjälpsam

Måttligt hjälpsam

Mycket hjälpsam

ADHD/ADD kan påverka människors liv på många sätt. Följande frågor handlar om hur symtomen på ADHD/ADD påverkar dina relationer med andra människor.

Vänligen besvara följande påståenden med det svarsalternativ som bäst beskriver hur du brukar uppleva din situation.

17. Jag upplever svårigheter med att kommunicera mina tankar och känslor till andra

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

18. Jag upplever att andra har svårigheter med att förstå tankar och känslor som jag försöker kommunicera

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

19. Jag upplever svårigheter med att förstå vad andra förväntar sig av mig i sociala sammanhang

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

20. Jag upplever svårigheter i bedömningen av när det är min tur att prata i en konversation

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

21. Jag upplever svårigheter med att lyssna på andra när de pratar med mig

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

22. Jag upplever svårigheter med att anstifta och upprätthålla sociala relationer

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

23. Jag upplever att jag säger eller gör saker som uppfattas som impulsiva och oförutsägbara i sociala situationer

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

24. Jag upplever svårigheter med att vara en del av en grupp i sociala- och/eller arbetsrelaterade situationer

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

25. Jag upplever att andra har svårigheter med att upprätthålla sociala relationer med mig

Instämmer inte alls

Instämmer till liten del

Instämmer till stor del

Instämmer helt och hållet

26. Anser du att det skulle vara till hjälp för dig att få någon form av behandling/träning som lär dig hur du kan minska eventuella negativa effekter av dina ADHD/ADD symtom på dina relationer med andra?

Ja

Ja, framför allt när jag var ung

Nej

Osäker

27. Kan du titta på följande lista och berätta om du någonsin har genomgått en utredning eller diagnosticerats med något av följande problem:

Genomgått en utredning av hälsovårdspersonal?	Problematiken Diagnosticerad? finns kvar än idag
Någon form av specifika inlärningssvårigheter (t ex dyslexi, dyspraxi, dysgrafi)	
ASD (Autismspektrumstörning inklusive Aspergers syndrom)	
En annan beteendestörning än ADHD/ADD som barn (uppförandestörning, beteendestörning)	
Ångest syndrom eller posttraumatiskt stressyndrom	
Tourette's syndrom, tics, eller tvångssyndrom	
Sömnbesvär	
Depression	
Premenstruellt syndrom eller premenstruell dysforisk störning	
Bipolärt syndrom	
Personlighetsstörning eller borderline personlighetsstörning	
Substance Use Disorder (e.g., alcohol or any drugs)	
Schizofreni	
Ätstörning (ex Anorexi eller Bulimi)	
Någon form av sjukdom som innefattar återkommande eller kronisk smärta (t ex huvudvärk, migrän, nacke eller ryggsmärta, artrit, inflammatoriska	

**tarmsjukdomar, återflöde, sår,
endometriosis, fibroider,
inflammation i bäcken)
Cancer
Diabetes (typ 1 eller typ II) eller
njursjukdom
Hjärt- och kärlsjukdom eller högt
blodtryck**

För varje fråga, sätt ett kryss i den ruta som bäst beskriver ditt beteende samt hur du har känt dig de senaste 6 månaderna.

28. Hur ofta har du svårigheter med att avsluta de sista detaljerna i en uppgift/ett detaljerna i en uppgift/ett projekt när de mer krävande momenten har avklarats?

Alltid

Ofta

Ibland

Sällan

Aldrig

29. Hur ofta har du svårigheter med att få ordning på saker och ting när du ska utföra en uppgift som kräver organisation?

Alltid

Ofta

Ibland

Sällan

Aldrig

30. Hur ofta har du problem att komma ihåg avtalade möten, t ex läkarbesök, eller åtaganden?

Alltid

Ofta

Ibland

Sällan

Aldrig

31. Hur ofta händer det att du undviker eller skjuter på att sätta igång med en uppgift som

kräver mycket tankemöda?

Alltid

Ofta

Ibland

Sällan

Aldrig

32. Hur ofta händer det att du sitter och plockar med något, eller skruvar på dig och rör händer eller fötter när du är tvungen att sitta en längre stund?

Alltid

Ofta

Ibland

Sällan

Aldrig

33. Hur ofta känner du dig överaktiv och tvungen att hålla igång, som om du gick på högvarv?

Alltid

Ofta

Ibland

Sällan

Aldrig

34. Hur ofta händer det att du gör slarvfel när du arbetar med en tråkig eller svår uppgift?

Alltid

Ofta

Ibland

Sällan

Aldrig

35. Hur ofta händer det att du har svårt att hålla kvar uppmärksamheten när du utför tråkigt eller monotont arbete?

Alltid

Ofta

Ibland

Sällan

Aldrig

36. Hur ofta händer det att du har svårt att koncentrera dig på vad folk säger, även när de pratar direkt till dig?

Alltid

Ofta

Ibland

Sällan

Aldrig

37. Hur ofta händer det att du förlägger eller har svårt att hitta saker hemma eller på arbetet?

Alltid

Ofta

Ibland

Sällan

Aldrig

38. Hur ofta händer det att du distraheras av händelser eller ljud i din omgivning?

Alltid

Ofta

Ibland

Sällan

Aldrig

39. Hur ofta händer det att du lämnar din plats under möten eller i andra situationer där du förväntas sitta kvar?

Alltid

Ofta

Ibland

Sällan

Aldrig

40. Hur ofta händer det att du känner dig rastlös eller har svårt att vara stilla?

Alltid

Ofta

Ibland

Sällan

Aldrig

41. Hur ofta händer det att du har svårt att gå ner i varv och koppla av när du har en stund

över?

Alltid

Ofta

Ibland

Sällan

Aldrig

42. Hur ofta händer det att du kommer på dig med att prata för mycket i sociala sammanhang?

Alltid

Ofta

Ibland

Sällan

Aldrig

43. Hur ofta händer det att du avslutar meningar åt dem du talar med, innan de själva hinner avsluta dem?

Alltid

Ofta

Ibland

Sällan

Aldrig

44. Hur ofta händer det att du har svårt att vänta på din tur i situationer då det krävs?

Alltid

Ofta

Ibland

Sällan

Aldrig

45. Hur ofta händer det att du avbryter/stör andra när de är upptagna?

Alltid

Ofta

Ibland

Sällan

Aldrig

Följande frågor handlar om hur ADHD har påverkat ditt liv under de senaste 2 veckorna. Välj det alternativ som beskriver din situation bäst. Det finns inga korrekta eller felaktiga svar.

46. Under de senaste 2 veckorna, hur svårt har det varit för dig att:

Inte Lite Måttligt Mycket Extremt
alls grann

Hålla din bostad ren eller städad
Hantera din ekonomi (hålla koll på bankkonton, betala räkningar i tid)
Komma ihåg viktiga saker
Få inköp gjorda (som mat, kläder eller hushållsartiklar)
Vara uppmärksam när du interagerar med andra

47. Under de senaste 2 veckorna, hur ofta har du känt dig:

Väldigt ofta Ofta Ibland Sällan Aldrig

Överväldigad
Ångestfylld
Deprimerad

48. Under de senaste 2 veckorna, hur ofta har du känt:

Väldigt Ofta Ibland Sällan Aldrig
ofta

Att du inte har lyckats nå upp till andras förväntningar av dig (antingen hemma eller på arbetet)
Att du har irriterat andra
Att få saker gjorda är för ansträngande
Att andra är frustrerade på dig
Att du har överreagerat i svåra eller stressfyllda situationer
Att du spenderar din energi på ett bra sätt (får positiva resultat)
Att du kan njuta av tid tillsammans med andra
Att du klarar av att styra ditt liv väl
Att du är så produktiv som du skulle vilja vara

49. Under de senaste 2 veckorna, hur mycket har du bekymrats av:

Inte Lite
alls grann **Måttligt Mycket Extremt**

Negativ spänning i relationer
Att du inte har tid till positiv samvaro med
andra

50. Under de senaste två veckorna, hur besvärad har du varit av:

Inte Lite
alls grann **Måttligt Mycket Extremt**

Att känna dig uttröttad
Humörsvängningar (upp och ned) i
känslolivet

51. Under de senaste två veckorna hur mycket problem har du haft med att:

Inte Lite
alls grann **Måttligt Mycket Extremt**

Göra färdigt projekt eller uppgifter (i
hemmet eller på arbetet)
Påbörja uppgifter som du inte finner
intressanta
Att hantera flera uppgifter på en gång/ att
göra flera saker samtidigt
Få saker gjorda i tid
Hålla koll på viktiga saker (som nycklar eller
plånbok)

52. Under de senaste två veckorna, hur ofta har du:

Väl O I S A
digt ofta fta bland ällan ldrig

Känt dig nöjd med dig själv
Känt att andra tycker om att spendera tid med
dig
Att dina närmaste relationer går bra
känslomässigt

Följande frågor handlar om ditt välbefinnande. Vänligen läs varje påstående och sätt ett kryss i rutan till vänster om det svar, som kommer närmast hur du känt dig under den senaste veckan. Fundera inte alltför länge. Det första svar som dyker upp är antagligen riktigare än ett svar som du funderat på länge. Svara på alla frågorna. Kryssa bara i en ruta för varje påstående!

53. Jag känner mig spänd eller ”uppskruvad”

För det mesta

Ofta

Då och då

Inte alls

54. Jag uppskattar fortfarande samma saker som förut

Precis lika mycket

Inte riktigt lika mycket

Bara lite

Nästan inte alls

55. Jag känner mig rädd, som om något förfärligt håller på att hända

För det mesta

Ofta

Då och då

Inte alls

56. Jag kan skratta och se saker från den humoristiska sidan

Lika mycket som jag alltid kunnat

Inte riktigt lika mycket som förut

Absolut inte så mycket som förut

Inte alls

57. Oroande tankar kommer för mig

Mycket ofta

Ofta

Då och då

Någon enstaka gång

58. Jag känner mig glad

Inte alls

Inte så ofta

Ibland

För det mesta

59. Jag kan sitta i lugn och ro och känna mig avspänd

Absolut

Oftast

Inte ofta

Inte alls

60. Jag känner mig som om allting går trögt

Nästan jämt

Ofta

Ibland

Inte alls

61. Jag känner mig rädd, som om jag har "fjärilar i magen"

Inte alls

Någon gång

Rätt ofta

Mycket ofta

62. Jag har tappat intresset för mitt utseende

Helt och hållet

Ganska mycket

Litet grand

Inte alls

63. Jag känner mig rastlös, som om jag måste vara på språng

Väldigt mycket

En hel del

Inte så mycket

Inte alls

64. Jag ser fram emot saker och ting med glädje

Lika mycket som jag alltid gjort

Något mindre än jag brukade

Klart mindre än jag brukade

Nästan inte alls

65. Jag får plötsliga panikkänslor

Mycket ofta

Ganska ofta

Inte så ofta

Inte alls

66. Jag kan njuta av en bra bok, eller ett bra radio- eller TV-program

Ofta

Ibland

Inte så ofta

Mycket sällan

Nedan finns en lista med påståenden. Var vänlig skatta hur sant varje påstående är för dig genom att ringa in ett av de nummer som finns bredvid påståendet.

67. Mina smärtsamma erfarenheter och minnen gör det svårt för mig att leva ett liv som jag skulle sätta värde på

Alltid sant

Nästan alltid sant

Ofta sant

Ibland sant

Sällan sant

Nästan aldrig sant

Aldrig sant

68. Jag är rädd för mina känslor

Alltid sant

Nästan alltid sant

Ofta sant

Ibland sant

Sällan sant

Nästan aldrig sant

Aldrig sant

69. Jag oroar mig för att inte kunna kontrollera mina bekymmer och känslor

Alltid sant

Nästan alltid sant

Ofta sant

Ibland sant

Sällan sant

Nästan aldrig sant

Aldrig sant

70. Mina smärtsamma minnen hindrar mig från att ha ett meningsfullt och tillfredställande liv

Alltid sant

Nästan alltid sant

Ofta sant

Ibland sant

Sällan sant

Nästan aldrig sant

Aldrig sant

71. Känslor skapar problem i mitt liv

Alltid sant

Nästan alltid sant

Ofta sant

Ibland sant

Sällan sant

Nästan aldrig sant

Aldrig sant

72. Det verkar som att de flesta människor hanterar sina liv bättre än jag

Alltid sant

Nästan alltid sant

Ofta sant

Ibland sant

Sällan sant

Nästan aldrig sant

Aldrig sant

73. Ängslan står i vägen för min framgång

Alltid sant

Nästan alltid sant

Ofta sant

Ibland sant

Sällan sant

Nästan aldrig sant

Aldrig sant

Tack så mycket!

Vi har nu tagit emot ditt svar.

Vid frågor och funderingar, vänligen kontakta:

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