



MSc in Clinical Psychology

Transdiagnostic Cognitive Behavioral Group Therapy for Fathers: A Pilot Study

Effects on Perceived Social Support, Dyadic Satisfaction and Quality of Life

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Foreword and acknowledgements

This article is part of a research project for a degree in MSc in Clinical Psychology, which was completed during four semesters. On the first semester of the masters program, the project was chosen and an instructor for the project. At the end of the semester the proposal for the project was finalized. On the second semester the research project was developed and structured. At the end of the semester the literature review and an application for the research was handed in. On the third semester, the method chapter was written and data was collected. On the fourth and last semester, the data was analyzed and a scientific research article was completed.

The data for the research was collected between two students. The data was then divided between the students with the outcome of two science research articles. The following article examines the effect of transdiagnostic cognitive behavioral group therapy on the effects on perceived social support, dyadic satisfaction and quality of life. The other article is on the effects of therapy on symptoms of depression, anxiety and stress. The theoretical background for the research is from studies about parents' mental health and therapy.

Supervisors were Linda Bára Lýðsdóttir and Jón Friðrik Sigurðsson. The treatment sessions were conducted in the congregation hall in Neskirkja and the data analyses and article writing was done in Reykjavík University. Co-authors of the article are Baldur Hannesson, Linda Bára Lýðsdóttir and Jón Friðrik Sigurðsson.

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Abstract

Objective: Researches have shown that fathers experience emotional difficulties in the postnatal period and it is more likely if the mother has emotional difficulties. Therapies exclusively for fathers have not been researched. This study takes on how fathers' perceive social support, dyadic satisfaction and quality of life after receiving transdiagnostic cognitive behavioral group therapy (TCBGT) for fathers of infants. Furthermore, an analysis was done on the difference between those who completed treatment and those who dropped out.

Method: Fathers of infants, 12 months or younger, were offered a brief TCBGT. There were 17 participants, ten of which completed the treatment. The treatment protocol consisted of six two hour sessions twice a week, one introduction session, and five therapy sessions.

Participants answered background questions and the following self-report scales; Depression Anxiety and Stress Scale, Multidimensional Scale of Perceived Social Support, Quality of Life Scale and Dyadic Adjustment Scale. **Results:** The difference between the groups was marginally significant on stress and the effect size was large. Pre- and post-treatment measures on the QLS were significantly different, a large effect size was found and 40% of the fathers showed reliable change post-treatment. **Conclusion:** The completers were somewhat more stressed than the dropout group. Pre-treatment the fathers scored closer to a clinical sample on perceived quality of life but post-treatment their scores were similar to a normal sample. The review from the fathers on the treatment revealed they thought treatment was helpful. The treatment shows promising results but this field needs further research.

Keywords: fathers, mental health, therapy, quality of life, social support, marital satisfaction

Transdiagnostic Cognitive Behavioral Group Therapy
for Fathers: A Pilot Study

Effects on Perceived Social Support, Dyadic Satisfaction and Quality of Life

Mental disorders have been studied in relation to parental feelings in the prenatal and postnatal period. The main focus has primarily been on mothers' postpartum depression although in recent years more focus has been given to other mental disorders and the whole perinatal period. Postpartum depression is categorized as clinical depression and has been a research topic for years (American Psychiatric Association, 2013). O'Hara and Swains (1996) meta-analysis concluded from 59 researches that the prevalence of postpartum depression was around 13%.

Fathers are also prone to symptoms of depression in the postnatal period and an integrative review showed that the rate of depression in community samples could vary from 1.2% to 25.5%. This discrepancy in prevalence is due to multiple measures determining depression (Goodman, 2004; Melrose, 2010). Paul and Bazemore (2010) study showed that 10% of expecting and new fathers experience symptoms of depression, the symptoms being most severe three to six months after childbirth.

There is a correlation between postpartum depression in fathers and mothers, which is a concern for the family well-being (Dudley, Roy, Kelk, & Bernard, 2001; Goodman, 2004). The main predictive factor for symptoms of depression in fathers is having a depressed spouse. If the mother was dealing with depression 24% to 50% of the fathers were also depressed (Goodman, 2004). Paulson et al. (2016) found that mothers depressive symptoms six months after birth became more serious if the fathers had symptoms of depression in the prenatal period.

Depression is not the only mental disorder that can have an impact on the life of a new parent. Parents can also experience symptoms of anxiety (Matthey, Barnett, Howie, & Kavanagh, 2003). Research has shown that in the prenatal period 4.1% to 16% of fathers

experience anxiety symptoms and in the postnatal period 2.4% to 18% of fathers experience anxiety symptoms (Helle et al., 2016; Leach, Poyse, Cooklin, & Giallo, 2016). Symptoms of anxiety in fathers are a field of research that needs further exploring (Leach et al., 2016).

One of the risk factors for mental disorders is a perceived lack of social support. If social support, especially the support of a spouse is lacking, symptoms of depression in women become more severe (O'Hara et al., 1996). Researches have shown different results on the correlation between social support and mental health in fathers. One research on social support and postpartum depression in fathers showed that perceived social support could not significantly predict postpartum depression for fathers (Kamalifard, Hasanpoor, Kheiroddin, Panahi, & Payan, 2014). Another study showed that low social support, low marital satisfaction and high discrepancy between expectation and experience of social and family life has correlations with depressed mood in fathers (Bielawska-Batorowicz & Kossakowska-Petrycka, 2006).

Marital satisfaction is an important factor for the well-being of parents and may be influenced by the mental health of either of the partner. Couples in both low-risk and high-risk pregnancies rate a decline in their relationship eight months postnatal compared to the prenatal period (Mercer, Ferketich, & DeJoseph, 1993). Ramchandani et al. (2011) found that parents feel that paternal postpartum depression is associated with more risk of disagreements in the relationship. The relationship may also affect the mental well-being of either of the partner. O'Hara et al. (1996) found that a bad relationship with a spouse had an effect to the worse on postpartum depression. If mothers have the support of their spouse in therapy, depressive symptoms decline significantly more than if the spouse is not included (Misri, Kostaras, Fox, & Kostaras, 2000). Research has shown that a positive relationship between a parent and a child is less likely if the marriage is troubled. Working on the marital relationship is therefore of great importance for the whole family (Erel & Burman, 1995).

The mental well-being of parents after childbirth may have severe effects on their quality of life. Howell, Mora, Horowitz and Leventhal, (2005) concluded that women diagnosed with postpartum depression scored lower on self-report scales that evaluate quality of life than mothers without depression. However little is known about how new fathers dealing with mental health problems perceive their quality of life.

Studies on fathers and their well-being are scarce. A meta-synthesis on fathers' experience of pregnancy, birth and maternity care found that fathers struggle to support the mothers while balancing their own uncertainty and fear about the future (Steen, Downe, Bamford, Edozien, 2012). If fathers have information and the support of health professionals, it can benefit the mother, the baby and the family as a whole (Steen et al, 2012; Yokote, 2007).

Kowlessar, Fox and Wittkowski (2015) reported that if fathers would get psycho-educational material that could help them, they would get more confident and feel more involved during the pre- and postnatal stage. Psycho-educational material could for example be delivered in a cognitive behavioral therapy (CBT) in a group, the same way it has been used for mothers (Meager & Milgrom, 1996). Meta-analysis on treatments for women with depression during and after pregnancy showed that CBT group therapy had a large effect size. Other therapies with a large effect size were medication, medication combined with CBT and interpersonal psychotherapy (Bledsoe & Grote, 2006).

One of the CBT therapies that have been used in groups is transdiagnostic cognitive behavioral therapy (TCBT), which was developed from cognitive behavioral therapy manuals for many different disorders (Barlow et al., 2011; Harvey et al., 2004). TCBT has shown good results as an individual therapy (Titov et al., 2011) as well as a group therapy (Farchione et al., 2012; Norton, 2008). It has also shown good results as a group therapy for postpartum depression in mothers (Meager & Milgrom, 1996). Applying TCBT to fathers in the postnatal period may be of importance since it could affect a broad range of symptoms.

Research on fathers and their well-being is a relatively new field and the research base is not extensive. The studies in this field have mostly been qualitative and less quantitative. There were no treatments found that were exclusively for fathers which is one of the reasons this pilot study offered treatment for fathers. In this study, fathers with infants 12 months or younger were offered to participate in a transdiagnostic cognitive behavioral group therapy (TCBGT). The treatment effect on symptoms of depression, anxiety and stress is reported in another science article.

This research had two goals. First goal was to analyze the difference between the completers group and the dropout group, and the second goal was to study the effects of therapy on perceived social support, marital satisfaction and the quality of life of fathers. The hypothesis in this study is that fathers receiving TCBGT will rate their quality of life, marital satisfaction and social support higher post-treatment than pre-treatment.

Method

Participants

Participants were 17 fathers of infants 12 months or younger. The mean age of participants was 32.3 years (SD=6.5, range 22 – 46). Seven dropped out after session one (dropout group), and ten fathers continued treatment (completers group). The inclusion criteria were having a baby 12 months of age or younger, being in a relationship with the mother of the child and experiencing symptoms of depression, anxiety or stress.

Measures

Participants answered five self-report scales and a questionnaire about their background. In this research, the following four self-report scales were used together with information from the background questionnaire.

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) is a 12-point scale that evaluates how much social support the participant experiences. It looks at three sources of support: family, friends and significant others (Zimet,

Powell, Farley, Werkman, & Berkoff, 1990). MSPSS has good validity and high internal consistency. The reliability is good, on the total score ($\alpha = 0.94$) and the three factors family ($\alpha = 0.88$), friends ($\alpha = 0.87$) and significant others ($\alpha = 0.87$) (Canty-Mitchell & Zimet, 2000; Kazarian & McCabe, 1991). The Icelandic MSPSS has good psychometric properties (Jóhannudóttir, 2011).

Dyadic Adjustment Scale (DAS; Spanier, 1976) is a self-report scale with 32 questions about the relationship with a partner. The scale consist of the following factors: *Dyadic Consensus* on what is important for the relationship (13 items), *Dyadic Satisfaction* of both individuals in the relationship (10 items), *Dyadic Cohesion* of closeness and shared activities (5 items) and *Affective Expression* which reflect the sexual relationship and affection (4 items) (Spanier, 1976). DAS has good reliability ($\alpha = 0.92$) and over all acceptable psychometric measures. The subscales also show acceptable reliability ($\alpha = 0.71 - 0.87$). (Graham, Liu, & Jeziorski, 2006). The Icelandic version of DAS was reliable ($\alpha = 0.89$) and had good psychometric properties (Sæmundsdóttir & Jónsdóttir, 2011).

Quality of Life Scale (QLS; Flanagan, 1978) is a questionnaire with 16 questions, which evaluate participants' quality of life. QLS has been shown to be valid and reliable ($\alpha = 0.82$ to 0.92) (Burckhard, Anderson, Archenholtz, & Hagg, 2003). The Icelandic version of the scale has acceptable psychometric properties in a clinical sample ($\alpha = 0.72$) but good properties ($\alpha = 0.86$) in a public sample (Jónsdóttir & Sigurðardóttir, 2016).

Depression Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995) is a questionnaire that consists of 42 questions divided into three subscales measuring symptoms of depression, anxiety and stress. The psychometric properties of the scales are good and it distinguishes well between symptoms. Internal consistency of depression, anxiety and stress in a clinical sample are good ($\alpha = 0.97$, $\alpha = 0.92$, and $\alpha = 0.95$ respectively) (Antony, Bieling, Cox, Enns, & Swinson, 1998) and also in a public sample ($\alpha = 0.95$, $\alpha = 0.90$ and $\alpha = 0.93$ respectively) (Crawford & Henry, 2003). The scale has been translated to Icelandic and

shows good psychometric properties (depression $\alpha = 0.92$, anxiety, $\alpha = 0.85$ and stress $\alpha = 0.90$) (Ingimarsson, 2010).

Research Design and Procedure

This study used within subject design. The selection of participants was in the form of advertising. The advertisement was done on social media via Facebook, in healthcare centers and sports training centers. Also in articles in the local newspaper, on the newspaper website and on interviews on local radio stations. The treatment was advertised as psycho-education for fathers of infants 12 months or younger which were experiencing symptoms of depression, anxiety and/or stress. Those interested could get more information about the research on a Facebook page or by contacting the researchers through email who then mailed information back.

If fathers were interested in taking part in the treatment, they were invited to the first session, which consisted of an introduction of the treatment and answering questionnaires. Before answering, all participants had to sign an informed consent. They were then asked to participate in five more sessions to receive a brief transdiagnostic cognitive behavioral group therapy (TCBGT).

Each session lasted for two hours, twice a week. The session materials were presented with slides and a whiteboard. The participants got the session slides in an email after each session. The main intake of the treatment was adjusted from an Icelandic developed TCBGT that has been used at the Mental Health Service at Landspítali - The National University Hospital of Iceland (Kristjánsdóttir, 2016). In-session examples were adjusted to suit parenting and the marital relationship. The treatment was mainly in the form of a psycho-education, there were always two therapists present and much time was given for discussion. In the beginning of each session, participants were asked to answer questionnaires. Table 1 shows an overview of the treatment sessions.

Table 1. *Overview of treatment sessions*

Session	Main objectives	Homework
1	Introduction to group rules Basic principles of CBT	Thought record
2	Automatic thoughts Review homework samples More information about the relationship between feelings, thoughts and behavior Cognitive distortions	Thought record with situation, thought, feelings and alternative thoughts
3	Alternative thoughts Review homework samples Symptoms of depression and anxiety How behavior can affect symptoms of depression and anxiety	Letting go of safety behaviors Thought record with situation, thought, feelings and alternative thoughts
4	Review homework samples Alternative thoughts, underlying assumptions and core beliefs	Thought record with situation, thought, feelings and alternative thoughts
5	Review homework samples Goal setting Review of the techniques that have been introduced	

In the last session, they were all asked to answer questions about the pros and cons of the treatment, evaluate the length of the treatment and more. The participants got no payment

for participating. An experienced psychologist that has worked with parents at Landspítali – The National University Hospital of Iceland, supervised the study and trained the therapists. The National Bioethics Committee in Iceland gave permission for the study (16-119-S1) and the Icelandic Data Protection Authority also approved the research. If the participants were experiencing emotional problems because of the therapy they would be offered a treatment session with an experienced psychologist.

Statistical analysis

Statistical comparison was conducted with the SPSS statistical package, 24th version (SPSS for Windows, Rel. 24th, SPSS Inc., Chicago IL, USA). The missing data in the self-report scales were handled by the 10% rule. If $\leq 10\%$ of questions had not been answered the mean value of the person's total score was added up to insert, instead of the missing item (Dong & Peng, 2013). No participant had more than 10% missing items. Intent-to-treat (ITT) was used for the data analysis, which means last observation carried forward. It is used to minimize the risk of over-interpreting the treatment effects (Kristjánssdóttir et al., 2016).

Before analyzing, the data was screened to be sure that no assumptions were violated. Preliminary analysis was conducted with descriptive statistics. Descriptive statistics were used to see if there was any difference between the completers group and the dropout group. An independent samples t-test was conducted to compare if there was a significant difference between how the dropout group and completers group answered the self-report scales.

The effect size Cohen's d was calculated with the formula: $M_1 - M_2 / s_{\text{pooled}}$. For the use of the Cohen's d the general guidelines are as follows. If Cohen's d is 0.2 to 0.5 it is small, 0.5 to 0.8 is medium and 0.8 and higher is a large effect size (Cohen, 1992). Effect size was calculated even though the t-test was not statistically significant because that does not mean that the effect was unimportant in practical terms (Field, 2013).

A paired-samples t-test was conducted to see if there was a significant difference between pre-treatment and post-treatment measures. Cohen's d effect size was also calculated

and reliable change index for two of three self-report scales. Reliable change index (RCI) was calculated by dividing the difference between before and after treatment scores by the standard error of the differences between the two. To find the standard error the alpha score of test-retest reliability is acquired. RCI is used because it tells whether the change reflects more than just a fluctuation in a measurement tool that is imprecise (Jacobson & Truax, 1991). The self-report scale MSPSS was not examined with the RCI because there was a lack of Icelandic studies to find a good standard error.

Results

All 17 participants were in a relationship and living with the infants' mothers. The background information between the groups, completers and dropouts, are shown in table 2.

Table 2. *Background information about the completers group and dropout group*

Background information	Completers Count (%)	Dropouts Count (%)
Relationship status		
Married	4 (40%)	2 (29%)
Unmarried	6 (60%)	5 (71%)
Children		
One	5 (50%)	4 (57%)
More than one	5 (50%)	3 (43%)
Age of infant		
Younger than 6 months	3 (30%)	6 (86%)
Older than 6 months	7 (70%)	1 (14%)
Education		
Compulsory	4 (40%)	2 (29%)
Other courses or degrees	2 (20%)	3 (43%)
University degree	4 (40%)	2 (29%)
Employed		
Yes	8 (80%)	6 (86%)
No	2 (20%)	1 (14%)
Uses psychotropic medication		
Yes	3 (30%)	2 (29%)
No	7 (70%)	5 (71%)
Have sought help for emotional difficulties		
Yes	5 (50%)	2 (29%)
No	5 (50%)	5 (71%)
Have been to alcoholic and drug rehab		
Yes	3 (30%)	1 (14%)
No	7 (70%)	6 (86%)

The only difference found was that 70% of completers but only 14% of the dropouts had an infant older than six months and 50% of completers had sought help for emotional difficulties but only 29% of the dropouts. The results for an independent t-test for completers and dropouts on the self-report scales are shown in table 3.

Table 3. Mean, standard deviation, significance (*p*) and effect size (*d*) for completers and dropouts

Measure	Completers Mean (<i>SD</i>)	Dropouts Mean (<i>SD</i>)	<i>P</i>	Cohen's <i>d</i>
MSPSS	72.2 (6.5)	71.1 (11.5)	0.83	0.12
<i>Family support</i>	23.8 (3.7)	24.1 (3.7)	0.99	0.08
<i>Friends support</i>	22.5 (2.4)	21.7 (4.9)	0.71	0.20
<i>Significant others support</i>	25.9 (2.0)	25.3 (3.7)	0.80	0.20
QLS	72.1 (7.45)	75.7 (13.2)	0.53	0.34
DAS	136.7 (7.5)	133.9 (19.9)	0.73	0.18
<i>Consensus</i>	62.2 (3.8)	59.6 (8.8)	0.48	0.38
<i>Satisfaction</i>	46.7 (2.7)	47 (7.4)	0.92	0.05
<i>Expression</i>	10.7 (1.5)	10.6 (2.2)	0.89	0.05
<i>Cohesion</i>	17.1 (4.2)	16.7 (3.4)	0.84	0.04
DASS Depression	9.9 (7.2)	5.2 (4.5)	0.16	0.78
DASS Anxiety	8.6 (5.9)	5.2 (4.1)	0.22	0.67
DASS Stress	16.2 (7.4)	9.3 (6.5)	0.07	0.99

MSPSS, Multidimensional Scale of Perceived Social Support; DAS, Dyadic Adjustment Scale; QLS, Quality of Life Scale; SD, standard deviation.

No difference was found in mean scores on the MSPSS, the DAS and the QLS between the dropout and completers group and the effect size was low or non-existing. The mean scores for the completers group were higher on all three subscales of the DASS indicating more severe symptoms of depression, anxiety and stress than of those in the dropout group. This difference was not significant, a medium effect size was found for the depression and anxiety factors and a large effect size was found for the stress factor.

A paired samples t-test for pre- and post-treatment results on the MSPSS, DAS and the QLS is shown in table 4. For both the MSPSS and the DAS, no significant difference was found between pre- and post-treatment. Scores on QLS were significantly higher for post-treatment ($M = 82.6$, $SD = 12.0$) than for pre-treatment ($M = 72.1$, $SD = 7.4$), $t(9) = -3.4$, $p = 0.008$, and a large effect size ($d = 1.05$) was found.

Table 4. *Pre and post-treatment scale measures: mean, standard deviation, significance and effect size*

Measures	Pre-treatment Mean (SD)	Post-treatment Mean (SD)	<i>P</i>	Cohen's <i>d</i>
MSPSS	72.2 (6.1)	75.5 (6.1)	0.131	0.54
<i>Family support</i>	30.4 (4.2)	31.7 (3)	0.226	0.36
<i>Friends support</i>	22.5 (2.4)	23.7 (2.8)	0.217	0.46
<i>Significant others support</i>	19.3 (1.6)	20.1 (1.9)	0.104	0.46
QLS	72.1 (7.4)	82.6 (12.0)	0.008	1.05
DAS	136.7 (7.5)	141.4 (7.1)	0.099	0.64
<i>Consensus</i>	62.2 (3.8)	64.0 (4.7)	0.193	0.42
<i>Satisfaction</i>	46.7 (2.7)	48.3 (3.4)	0.091	0.52
<i>Expression</i>	10.7 (1.5)	11.1 (1.4)	0.223	0.28
<i>Cohesion</i>	17.1 (4.2)	18.0 (3.1)	0.343	0.24

MSPSS, Multidimensional Scale of Perceived Social Support; DAS, Dyadic Adjustment Scale; QLS, Quality of Life Scale; SD, standard deviation.

Reliable change index (RCI) in therapy was measured for the QLS and the DAS, shown in table 5. Results showed that on the QLS measures, 40% of participants showed reliable change from pre- to post-treatment and 60% showed no change. On the DAS measures, 20% showed reliable change and 80% no change.

Table 5. *Reliable change on QLS and DAS*

Scale	Reliable change (%)	No change (%)
QLS	40%	60%
DAS	20%	80%

QLS, Quality of life scale; DAS, Dyadic Adjustment Scale.

The answers fathers gave to the questions on how they experienced the treatment were summarized. Examples of the answers given to the question about the main qualities of the course were: “The help and the education I get”, “CBT is brilliant”, “Good to meet other fathers in the same shoes as you”, “The silver lining, it is good to meet up in a group with fathers and talk about anxiety”, “I have friends with anxiety that are fathers, I am looking forward to sharing with them”, “I thought it taught me an interesting way to deal with life” and another said “Informative”. The last answer was “The treatment should be compulsory for new fathers. It is good to have tools to challenge your own mind that can be in many forms in the postnatal period and also for everything else you do in life that is not related to the parenting role”

Examples of answers to the question about what can we do to make the treatment better, were: “Try to connect the group more, more conversations”, “Sometimes you go to fast and not everyone gets the content of the slide” and “very few participants”.

The participants were also asked about what they thought of the length of each session, the number of session and if they would have liked to have a shorter or longer period between sessions. Most said that they wanted more sessions, most were happy with the length but some said they would like to have each session shorter. Nearly all said that they wanted the sessions to be once a week and not twice a week.

Discussion

The purpose of this study was twofold; to analyze the difference between the fathers who attended treatment and those who dropped out, and to assess if the treatment had a positive effect on how fathers perceive their social support, dyadic adjustment and quality of life.

The seventeen fathers were from all walks of society. They had different family sizes, age and education. The different backgrounds of the participants suggests that anyone can experience difficult emotions after the birth of an infant.

When analyzing the difference between the fathers attending to the treatment and those who dropped out, minor differences were found. The main difference was the age of their infants, the completers mostly had infants older than six months and the dropouts mostly had infants six months or younger. The reason could be that fathers with younger children had less time to spare and could not commit to two treatment sessions per week. There was also some difference between the groups in relations to prior therapy those who stayed in therapy were more likely to have had prior help for emotional difficulties.

Some difference was also found on depressive, anxiety and stress symptoms on the DASS. Completers scored higher on all factors and the difference was close to significance on the stress factor. This difference was also apparent because of the medium to large effect sizes for the scores. This suggests that the fathers in the completers group were experiencing more severe mental problems and therefore in a greater need of therapy than the dropout group. It is important to bear in mind that because of the small sample size it can be difficult to show a significant difference between the groups.

It is interesting to compare the scores of the fathers in this study to the scores of clinical and normal samples on the self-report scales. That could give a better understanding on what these fathers are experiencing compared to others.

The fathers' scores on the DASS were compared to the scores of a normal and a clinical sample from an Icelandic study (Ingimarsson, 2010). The fathers scored higher than the average on every scale compared to a normal sample and lower than the average on every scale compared to the clinical sample. Compared to Icelandic cutoff scores the fathers' depression symptoms were normal but the anxiety and stress symptoms were mild.

Looking at the other scales and comparing the fathers with other groups, the following was apparent. When the fathers' scores on the MSPSS and the DAS were compared to Icelandic healthy norms (Jóhannudóttir, 2011; Sæmundsdóttir & Jónsdóttir, 2011), the fathers rated their social support and dyadic satisfaction on average higher than the

norms. That could be one of the reasons why their scores took a small change during therapy. The fathers already had higher than average scores and therefore a change on those scales was not of great importance.

There was one scale which the fathers scored close to a clinical sample and that was the one that evaluates their quality of life. Norms for QLS in a clinical sample and a student sample (Jónsdóttir & Sigurðardóttir, 2016) were compared to the results of the fathers, which were two standard deviations from the healthy sample.

Pre-treatment the completers group also scored close to the clinical sample but post-treatment their scores were similar to the normal sample and 40% of the group had a reliable change in treatment on the QLS. In the treatment this was the only scale that had a significant change and a large effect size. These results are promising for fathers' mental care and could indicate that fathers feel a lack of quality in life in the postnatal period.

Even though QLS had the only significant change, the fathers in the completers group showed some improvement on all scales. The effect sizes were small on most subscales although there was a medium effect size on the total scores of MSPSS and DAS and a large effect size on the QLS. Arguably due to a small sample size the difference between the groups was not significant. On the other hand, there was a significant difference on a scale that the fathers scored similar to a clinical sample. That could indicate that the treatment is somewhat effective.

The effectiveness can also be seen from the fathers' reviews regarding the treatment where the majority reported that they found the treatment beneficial. One said it taught an interesting way to deal with life, another said that the treatment should be compulsory for new fathers and most fathers wanted extra sessions.

Kowlessar et al. (2015) reported that fathers could be more confident and more involved if they got psycho-educational material. The result in this study does indicate that fathers can benefit from psycho-educational material delivered in a brief TCBGT. Steen et al.

(2012) argued that fathers needed more support so they could support the mother and the infant. Especially because researches have shown that, there is a correlation between parents' mental health problems (Dudley et al., 2001; Goodman, 2004). There was no information gathered concerning the mothers mental health which could have been interesting, in future studies that would be a good addition.

It is important for health professionals and society to open their eyes to the mental health problems that both parents can be experiencing in the postnatal period. Society can never invest enough in families and if parents with mental health problems are not supported, it can affect the infant (Erel & Burman, 1995). It is important to be aware of emotional problems parents can experience and subsequently offer some kind of a treatment.

It is clear that there is a need for further research, as this was a pilot study. The study would have benefitted from having more participants as it was difficult to get fathers to participate but plenty showed interest. One of the reasons could be that it is a relatively new concept that fathers can experience strong emotions in the postnatal period. Future studies should use a bigger sample and a control group.

In this study, most fathers were happy with the treatment and thought it was useful which is the ultimate goal. The fathers also perceived their quality of life better post-treatment. These results give a good indication that therapy for fathers could be an important part of family support. Although the results are promising, there is much need for further research.

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