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EMPIRICAL PAPER

Efficacy of metacognitive therapy for hypoactive sexual desire disorder among Iranian couples

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Abstract

Objective: The aim of present study was to compare the efficacy of metacognitive therapy (MCT) against Masters–Johnson sex therapy (MJST) for hypoactive sexual desire disorder (HSDD) in Iranian couples. Methods: A randomized treatment trial was conducted. Participants were recruited from the family counseling clinics in Tehran and Isfahan. All were suffering from HSDD as defined by DSM-IV-R criteria. They were assigned randomly to two groups that received 10 sessions of either MCT or MJST. A sexual desire questionnaire was completed by participants before and after therapy and at 6-month follow-up. Results: Sexual desire increased significantly in the MCT group with respect to the MJST group which failed to show any significant improvement from baseline. Both groups showed a reduction in scores at 6-month follow-up. The difference recorded between the two groups after therapy was no longer significant at 6-month follow-up. Conclusion: MCT affected sexual desire more than MJST as evaluated after therapy but the gain was not maintained at follow-up. Future research needs to investigate whether a greater focus on metacognitive beliefs about sexual behavior can improve the stability of treatment effects.

Keywords: metacognitive therapy; sex therapy; treatment; sexual desire; sexuality

Clinical or methodological significance of this article: Meta-cognitive therapy is effective for HSDD.

Introduction

The theory of cognitive-behavioral therapy for depression was conceived by Beck in the 1970s. Following Beck's theory, the concept of metacognition was introduced by Flavell in 1979. Metacognition is a cognitive process about cognition, thinking about thinking, or knowledge about what one knows (Flavell, 1979).

Metacognition monitors, controls, and evaluates the process and products of knowledge. Everyone has such thoughts, whether negative or positive, but some people are more affected by their negative thoughts and are given to anxiety and depression (Flavell, 1979). Metacognitive studies began in the area of developmental psychology and subsequently spread to other fields, such as the psychology of memory, aging, and neurosciences. The metacognitive model was first used to treat anxiety by Adrian Wells, an English psychologist at the University of Manchester. As a post-modern therapy, it has been developed to treat different kinds of psychopathology (Wells, 2009).

Metacognitive therapy (MCT) is based on an information-processing model of psychological disorder (Wells & Matthews, 1996), in which emotional and behavioral disturbance is thought to result from the persistence of repetitive negative thinking and unhelpful patterns of attention. Specifically, the patient engages in prolonged worry and rumination about events and in unhelpful self-focused
coping behaviors, such as thought suppression and self-monitoring. Treatment aims to remove these processes (which are collectively called the Cognitive Attentional Syndrome), so that normal behavior and self-regulatory processes can take over. According to the model, these unhelpful processes arise from underlying metacognitive beliefs, particularly beliefs about the uncontrollability and negative effects of thinking, and beliefs that worry and rumination are helpful. MCT uses four essential therapeutic skills. First, the therapist must understand the different levels of cognition (i.e., the distinction between normal cognition and metacognition) and be able to switch between them. Second, the therapist must be able to identify maladaptive cognitive processes characterized by different forms of Cognitive Attentional Syndrome. Third, the therapist uses metacognitive-focused Socratic dialogue. Fourth, the therapist must help the patient use performance-based metacognitive strategies in order to modify metacognitive beliefs and increase flexible control of thinking. One such technique is Detached Mindfulness which is used to help patients stand back from thoughts and disengage reactions to them. This technique is often used in combination with experiments such as postponing worry and rumination in response to negative thoughts (Wells, 2009). MCT is gaining popularity and has been evaluated across mental health problems (Wells et al., 2010, 2012; Yilmaz, Gencoz, & Wells, 2008, 2011). Researchers in Iran have demonstrated that the method is appropriate for Iranian individuals with depression, body dysmorphic disorder, and obsessive–compulsive disorder (Andouz, Dolatshahi, Moshtagh, & Dadkhah, 2012; Ashouri, tef Vahid, Gharaei, & Rasoulian, 2013; Farahmand, Hassanzadeh, Mirzaian, Fayyazi Bordbar, & Feizi, 2014; Rabiei, Mulkens, Kalantari, Molavi, & Bahrami, 2012).

The treatment of psychosexual disorders is a new field for researchers and therapists in Iran because of earlier attitudes, beliefs, and taboos associated with this area (Ramezani, Ahmadi, Ghaemmaghami, Azad-Marzabadi, & Pardakhti, 2015). In a previous study, we estimated that hypoactive sexual desire disorder (HSDD) affects 17.6–52% of the Iranian population (Ramezani et al., 2015). This high prevalence coupled with neglect of this area suggests that more research into therapeutic methods is needed.

Few studies have concerned the use of MCT to treat psychosexual disorders. This personally non-invasive approach could be useful and as it deals with regulating thinking processes rather than going into explicit sexual content or behavior. There is no specific MCT model for psychosexual disorders, but the approach is trans-diagnostic. We chose to use the MCT depression model (Wells, 2009) as a basis for the treatment of HSDD.

Method

Participants and Procedure

This study was a multicenter randomized trial which compared two methods of psychotherapy for the treatment of sexual desire disorder. Our main research question was whether MCT is an effective treatment for HSDD. In order to address this question we compared MCT with another active treatment based on the sex therapy approach of Masters and Johnson. The trial was conducted from February 2012 to February 2013 in Tehran and Isfahan, Iran. It was approved by the research and ethical committee of Baqiyatallah University of Medical Sciences.

We used a two-phase recruitment process. In the first stage, a call for sexual disorder treatment was announced among individuals attending two family therapy centers. In the second stage, all participants seeking treatment for sexual problems were screened by a physician by systematic clinical interview and HSDD was established on the basis of DSM-IV-R criteria (Spitzer, Gibbon, & William, 1994). Inclusion criteria were: married, 18 years of age or over and written inform consent to treatment for the couple. Exclusion criteria were any medical condition or psychiatric comorbidity, absence at least two therapy sessions, and dissatisfaction with cohabitation. We recruited 30 cases for the third stage. They were assigned to two groups on the basis of social security number (individual national code) and a random digit table. Randomization was done by a researcher who was not involved in the treatment process. The MCT group received 10 individual treatment sessions. We used Wells’s MCT depression treatment plan (Wells, 2009). The positive control group underwent MJST by the standard method (Masters, Johnson, & Kolodny, 2006). To avoid measurement bias, all treatments were done by one of the researchers and a colleague administered and assessed the questionnaires.

Measures

The participants completed three questionnaires at the initial screening: sexual desire and arousal questions from the Female Sexual Function Index (FSFI), the General Health Questionnaire 28 items (GHQ-28) and the Evaluation & Nurturing Relationship Issues Communication and Happiness questionnaire (ENRICH). The three questionnaires were answered again after treatment and ENRICH and
the FSFI sexual desire and arousal questions were administered again at 6-month follow-up. The primary outcome measure was the score obtained for the FSFI sexual desire and arousal questions.

**FSFI sexual desire and arousal questions.** We retrieved sexual desire and arousal questions from the FSFI (Rosen et al., 2000), which has been validated for the Iranian population (Fakhri, Pakpour, Burri, Morshed, & Zeidi, 2012). In a preliminary pilot study, FSFI was answered by 20 couples with sexual desire problems. Exploratory factor analysis with principle component analysis was applied to the results and showed that the first six questions of the FSFI were appropriate to evaluate sexual desire in couples. We therefore used six questions (two questions on desire and four questions on arousal and interest) to assess sexual desire in the study. Each question was rated 0–5 and the total score could be between 2 and 30.

**General Health Questionnaire – 28 items.** The GHQ–28 was devised by Goldberg to assess mental health for research in mental health care (Goldberg et al., 1997). In Iran this questionnaire has been translated to Persian and used in different studies. Its validity and reliability have been confirmed in the Iranian population (Noorbala, Bagheri Yazdi, & Hafezi, 2012; Noorbala, Bagheri Yazdi, Yasamy, & Mohammad, 2004). The GHQ-28 was only used to screen mental health and detect high stress levels.

**Evaluation & Nurturing Relationship Issues Communication and Happiness questionnaire.** The ENRICH questionnaire was developed in the 1980s by Olson to assess marital satisfaction. The short form 47-item version of this questionnaire was translated into Persian and its validity and reliability were confirmed for the Iranian population. It has nine subscales: 1-personality issues, 2-marital communication, 3-conflict resolution, 4-financial management, 5-pleasure activity, 6-sexual relation, 7-marriage and children, 8-family, and friends, 9-religious orientation (Ahmadi, 2010; Sanaii, 2007).

**Data Analysis**

We used SPSS-20 for data analysis. After descriptive analysis, ANOVA was used to compare mean questionnaire scores between the two groups. Then repeated-measure ANOVA was used to compare the scores obtained before and after therapy and at 6-month follow-up. In this way, assumptions were observed. Muchley's test for sphericity was used for compound symmetry and if it was statistically significant, univariate ANOVA was applied; otherwise we used Pillai's test for multivariate ANOVA. We used the partial eta squared statistic from SPSS to show effect size. This statistic reports the “practical” significance of each term, based on the ratio of the variation (sum of squares) accounted for by the term, to the sum of the variation accounted for by the term and the variation left to error. Larger values of partial eta squared indicate greater variation accounted for by the model term, to a maximum of 1. In all tests, significance was set at \( p < .05 \) and power analysis was performed when there was no statistical significance.

**Results**

Before examining the main research question, statistical analysis was performed to represent the demographic and basic data. We recruited 15 cases of sexual desire disorder in each group. Demographic characteristics and basic data of the subjects are shown in Table I. Most participants were middle-aged women who had been married for about 9 years (range 1–20 years) and had university degrees.

<table>
<thead>
<tr>
<th>Time of evaluation</th>
<th>Group</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before therapy</td>
<td>MCT*</td>
<td>6</td>
<td>16</td>
<td>11.1</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>MJST*</td>
<td>6</td>
<td>16</td>
<td>9.1</td>
<td>2.9</td>
</tr>
<tr>
<td>After therapy</td>
<td>MCT</td>
<td>10</td>
<td>18</td>
<td>15.1</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>6</td>
<td>17</td>
<td>11.2</td>
<td>3.4</td>
</tr>
<tr>
<td>6-month follow-up</td>
<td>MCT</td>
<td>7</td>
<td>16</td>
<td>11.2</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>6</td>
<td>17</td>
<td>10.9</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Notes:

*Metacognitive therapy.
*Masters–Johnson sex therapy.
Mean sexual desire score, mental health status (GHQ score) and sexual satisfaction (ENRICH score) did not differ significantly between groups before treatment.

Repeated-measures ANOVA was run to examine changes in sexual desire and sexual satisfaction over time (comparing baseline scores with those after therapy and at follow-up).

Sexual desire increased significantly after MCT, but showed relapse at 6-month follow-up. No statistically significant differences were found after MJST or at 6-month follow-up. Table II shows mean sexual desire scores that increased significantly after treatment. Time-related enhancement of sexual desire and arousal in the MCT group were significantly higher after treatment with an effect size of 29.3% according to repeated-measures ANOVA ($F = 15.161$, $p < .001$, effect size as $\eta^2 = 0.293$) but they showed relapse at 6-month follow-up in both groups. Figure 1 shows the changes in sexual desire score in both groups on an individual basis. As shown in this diagram, desire and arousal scores increased after treatment in both groups but the increase was only statistically significant in the MCT group immediately after therapy ($F = 5.986$, $p = .021$, effect size as $\eta^2 = 0.18$), whereas 6 months later both groups had relapsed (black bars).

Unlike sexual desire, ENRICH subscales showed no significant differences in repeated-measure scores or between groups. Table III shows the mean scores in each subscale at the three assessment times.

Discussion

Although MJST improved patients’ sexual desire by the end of treatment, the improvement was lost in the post-treatment period. Initially, Masters and Johnson’s sex therapy principles were based on systemic behavior therapy and emphasized communication skills, couple education, and mutual cooperation. This approach was attractive to many therapists in the 1970s. It seemed to be evidence-based and was relatively simple to learn and use. More recent studies showed that internet-based MJST was effective (Van Diest, Van Lankveld,
Leusink, Slob, & Gijs, 2007). Additionally, three systematic reviews and meta-analyses determined the efficacy of MJST, but they found the effect size of the approach was low and importantly, a relapse was evident after 6 months (Berner & Gunzler, 2012; Gunzler & Berner, 2012; Pereira, Arias-Carrion, Machado, Nardi, & Silva, 2013). This result is also confirmed by the present study.

Our findings showed that MCT increased sexual desire score in our clinical sample more than the control treatment over 10 sessions. These results are promising and suggest that MCT is an acceptable treatment and had a greater effect size. However, the gains were no longer evident at 6-month follow-up.

It is not clear why the gains were not maintained. We did not measure the processes (worry, rumination) or metacognitive beliefs thought to contribute to the disorder. This was a major limitation because one or more of these parameters may not have changed as much as is desirable. By measuring these constructs in future studies we may be able to say more about the mechanisms behind symptom improvement and recurrence.

In this preliminary study we used the MCT approach to depression as a basis for treatment, but we have no data on the skill of the therapist in delivering the treatment. Furthermore, the therapist was not specifically trained in MCT or MJST, so we cannot comment on the effect of therapeutic skill on outcome.

Wells and King determined that MCT had a significant impact on generalized anxiety disorder after 3–12 sessions, for the first time. The effect size of treatment with respect to the different tools used in their study varied from 1.12 to 1.82, and relapse rate was 25% (Wells & King, 2006). Other studies have confirmed the efficacy of MCT in anxiety disorder (Heiden, 2013; Wells et al., 2010), and in a recent meta-analysis, Normann and colleagues reported an effect size of MCT for anxiety disorder in the range 1.18–2.00 versus about 0.98 for conventional cognitive-behavior methods (Normann, van Emmerik, & Morina, 2014). Several studies have shown a success rate of at least 60% over 8–10 sessions for treatment of depression (Callesen, Jensen, & Wells, 2013; Wells et al., 2012).

The efficacy of MCT has been approved in the treatment of obsessive compulsive disorder (Fisher & Wells, 2005, 2008; Myers & Wells, 2005, 2013; Myers, Fisher, & Wells, 2008, 2009), post-traumatic stress disorder (Wells & Colbear, 2012; Wells & Sembi, 2004), psychosis (Hutton, Morrison, Wardle, & Wells, 2014; Morrison et al., 2011; Morrison & Wells, 2003; Morrison, French, & Wells, 2007; Welsh, Cartwright-Hatton, Wells, Snow, & Tiffin, 2014), and drinking and other addictive behaviors (Spada & Wells, 2008, 2009; Spada, Caselli, Nikcevic, & Wells, 2015). A search of the literature did not locate any studies regarding MCT for family and couple therapy or treatment of sexual problems.

The present study is the first in this area in Iran. The psychopathology of HSDD seems to involve several mental and emotional factors with anxiety

Table III. Comparison of ENRICH subscales in the two treatment groups.

<table>
<thead>
<tr>
<th>ENRICH* subscale</th>
<th>Study groups</th>
<th>Mean ± SD Before therapy</th>
<th>Mean ± SD After therapy</th>
<th>Mean ± SD Follow-up</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal issues</td>
<td>MCT</td>
<td>3 ± 0.8</td>
<td>3.4 ± 0.6</td>
<td>3 ± 0.8</td>
<td>0.85</td>
<td>.356</td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>2.8 ± 0.7</td>
<td>3.1 ± 0.7</td>
<td>2.8 ± 0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital satisfaction</td>
<td>MCT</td>
<td>3.3 ± 0.6</td>
<td>3.4 ± 0.5</td>
<td>3.1 ± 0.3</td>
<td>0.51</td>
<td>.481</td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>3.3 ± 1</td>
<td>3.2 ± 0.9</td>
<td>2.8 ± 0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict resolution</td>
<td>MCT</td>
<td>2.9 ± 0.6</td>
<td>2.9 ± 0.6</td>
<td>2.9 ± 0.6</td>
<td>0.04</td>
<td>.835</td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>2.9 ± 0.8</td>
<td>2.9 ± 0.7</td>
<td>2.8 ± 0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial management</td>
<td>MCT</td>
<td>2.7 ± 0.7</td>
<td>2.7 ± 0.6</td>
<td>2.4 ± 0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>2.6 ± 0.6</td>
<td>2.6 ± 0.6</td>
<td>2.4 ± 0.7</td>
<td>0.001</td>
<td>.97</td>
</tr>
<tr>
<td>Leisure activity</td>
<td>MCT</td>
<td>2.9 ± 0.7</td>
<td>3.2 ± 0.7</td>
<td>2.9 ± 0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>2.9 ± 0.7</td>
<td>3.1 ± 0.8</td>
<td>2.9 ± 0.7</td>
<td>0.001</td>
<td>.97</td>
</tr>
<tr>
<td>Sexual relation</td>
<td>MCT</td>
<td>2.9 ± 0.7</td>
<td>2.9 ± 0.5</td>
<td>2.5 ± 0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>3 ± 0.9</td>
<td>2.6 ± 0.7</td>
<td>2.3 ± 0.6</td>
<td>0.23</td>
<td>.64</td>
</tr>
<tr>
<td>Child-parents relation</td>
<td>MCT</td>
<td>2.5 ± 0.8</td>
<td>2.7 ± 0.7</td>
<td>2.5 ± 0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>2.6 ± 0.5</td>
<td>2.4 ± 0.5</td>
<td>2.5 ± 0.5</td>
<td>0.075</td>
<td>.79</td>
</tr>
<tr>
<td>Friends-family relation</td>
<td>MCT</td>
<td>3.3 ± 0.6</td>
<td>3.1 ± 0.8</td>
<td>3.3 ± 0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>3.2 ± 0.4</td>
<td>2.5 ± 0.7</td>
<td>3.2 ± 0.6</td>
<td>2.66</td>
<td>.11</td>
</tr>
<tr>
<td>Religious orientation</td>
<td>MCT</td>
<td>3 ± 0.9</td>
<td>3.1 ± 0.7</td>
<td>3 ± 0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MJST</td>
<td>2.7 ± 0.6</td>
<td>2.6 ± 0.7</td>
<td>2.6 ± 0.6</td>
<td>1.824</td>
<td>.19</td>
</tr>
</tbody>
</table>

*aEvaluation & Nurturing Relationship Issues Communication and Happiness questionnaire (ENRICH).

*bMetacognitive therapy.

*Masters-Johnson sex therapy.
and depression as essential elements (Basson, 2005, 2007; Maurice, 2005, 2007; Rowland, 2006; Sadock, 2009). Gelo and Mergenthaler demonstrated that MCT can be very useful for emotion regulation and can improve metacognitive interpersonal therapy (Gelo & Mergenthaler, 2012). In line with this literature, our results suggest that the MCT model may also be used to improve HSDD.

Regarding the limitations of the present study, although we used a randomized experimental study, we were unable to design a double blind study. Self-report bias and poor recall may have contributed to errors in self-report measures. Future studies should have larger sample size and compare MCT to other therapeutic options. We also suggest using more homogeneous samples in future studies, such as considering women and men in separate studies, with measures validated for women and men, respectively. Our sample had the limitation of containing few men. Most importantly, future research will have to ascertain whether metacognitive beliefs and processes related to sexual behaviors are determinants of HSDD outcome in clinical samples. Despite these limitations the study demonstrated that MCT is a promising new approach for treatment of HSDD.

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**Disclosure Statement**

No potential conflict of interest was reported by the authors.

**References**


