



# Effectiveness of Metacognitive Therapy on Meta-Worry Questionnaire, Fear of Positive Evaluation and Interpersonal Sensitivity of Female Students with Social Anxiety

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## ABSTRACT

*This study aimed to examine the effectiveness of metacognitive therapy on social anxiety, meta-worry, fear of positive evaluation, and interpersonal sensitivity in female students with social anxiety. The research employed a quasi-experimental design with a pretest-posttest control group. The statistical population included all students at the Najafabad Branch of Islamic Azad University for the 2023-2024 academic year. The sample was selected using a convenience sampling method, and data were collected using the Meta-Worry Questionnaire (Wells, 2005), the Fear of Positive Evaluation Scale (Wix-Heimberg & Rodbark, 2008), and the Interpersonal Sensitivity Measure (Bayes & Barker, 1989). A total of 40 students were randomly assigned to either the experimental or control group. The experimental group received metacognitive therapy, while the control group did not receive any treatment. Data were analyzed using multivariate analysis of covariance (MANCOVA). The results indicated that metacognitive therapy significantly reduced fear of positive evaluation and interpersonal sensitivity ( $P < 0.01$ ). Based on these findings, there was a significant difference between the experimental and control groups in reducing fear of positive evaluation and interpersonal sensitivity.*

**Keywords:** social anxiety, Meta-Worry, fear of positive evaluation, interpersonal sensitivity.

## INTRODUCTION

Social anxiety disorder is one of the most prevalent psychological disorders during adolescence and young adulthood, arising from a combination of personal motivations and external influences such as group values and social representations (Mihai, 2024). The lifetime prevalence of social anxiety has been reported as 13.3%, with its peak onset occurring in the second decade of life (Zou, 2024). A significant number of university students struggle with this disorder, which can lead to various negative consequences in their academic and social lives (Nazemi, Najafi, Hosseini, Maleki, & Rahimian, 2018). Thus, university students are among those most affected by social anxiety, highlighting the importance of addressing its treatment within this population. One of the key constructs related to social anxiety is meta-worry. Meta-worry refers to the negative evaluation of one's worry or worries about worry, leading to catastrophizing and difficulty in mental control, which in turn exacerbates and sustains anxiety (Behjat, Mirshamsi, Karbalaie Saleh, & Dashtbozorgi, 2020). Meta-worry increases anxiety and conflicting emotional symptoms (Nigar, Khawaja, & Strodl, 2011). From a metacognitive perspective, meta-worry results in avoidance behaviors and attempts to control worry-triggering thoughts. Failure in this process reinforces individuals' beliefs about the uncontrollability of worry (Salmani, Hosseini, Mohammadi-Khani, & Karami, 2014). Another construct associated with social anxiety disorder is the fear of positive evaluation. This refers to the distress and excessive concern caused by being positively evaluated by others (Shaban-Nejad & Nozari-Zadeh, 2024). This fear can hinder individuals' social interactions and relationships, potentially leading to avoidance of social situations and exacerbating feelings of loneliness, anxiety, and depression (Rossby, Spaulding, & Taylor, 2024). A further construct related to social anxiety disorder is interpersonal sensitivity. This refers to the extent to which individuals are aware of and influenced by others' emotions and behaviors, which can intensify social anxiety and manifest as fear and apprehension in social situations (Ding, 2024).



effectiveness being confirmed. Among these treatments, studies have highlighted the impact of cognitive-behavioral therapy on tolerance of ambiguity, uncertainty, and sleep quality in students with social anxiety (Jami, Sobhi-Nejad, Salarifar, Tabatabai, & Kanifar, 2024), as well as its effectiveness in treating anxiety disorders (Hall, Luo, Bhullar, Moses, & Wootton, 2024). Additionally, research has examined the role of integrating digital news communication in the treatment of anxiety disorders (Li, 2023) and the effectiveness of integrative family therapy in addressing social anxiety disorder (Hunger-Schoppe, Schweitzer, Hilzinger, Krempel, Dauber, Sander, & Lieb, 2022). These therapeutic approaches have also been explored concerning reducing meta-worry, fear of positive evaluation, and interpersonal sensitivity, which are key constructs associated with social anxiety.

One of the emerging treatments for psychological disorders that has shown promising results in improving various conditions is metacognitive therapy. Developed by Wells (2011), this evolving therapeutic approach has demonstrated effectiveness in treating social anxiety. Metacognitive therapy operates on the premise that it is not the content of thoughts that contributes to anxiety disorders, but rather the processes governing thinking. This approach focuses on thinking about thinking and aims to challenge maladaptive cognitive beliefs and processes (Kennair, Solem, Hagen, Havnen, Nysaeter, & Hjemdal, 2021). By targeting metacognitive processes that sustain the anxiety cycle, this therapy equips individuals with effective coping mechanisms, empowering them to manage and reduce the impact of anxiety on their lives (Wells, Welford, King, Papageorgiou, Wisely, Mendel, 2010). Additionally, metacognitive therapy has been shown to significantly reduce worry severity, anxiety symptoms, and cognitive distortions in individuals with anxiety disorders (Rawat, Sang Roula, Khan, Faisal, Chand, Yousaf, 2023; Walczak, Breinholst, Ollendick, & Esbjørn, 2019). The effects of this treatment have been found to persist for 6 to 12 months post-therapy. Its success lies in identifying and restructuring core beliefs that perpetuate psychological disorders, rather than merely alleviating symptoms of anxiety and depression as seen in many traditional therapies. Instead of focusing on symptom reduction and temporary relief, metacognitive therapy targets rigid thinking habits, which, if left unchanged, can lead to a relapse into mental illness. The primary goal of this approach is to correct cognitive and emotional dysregulation in psychological disorders, emphasizing the importance of metacognition in understanding cognitive functioning. This therapy centers on modifying metacognitive beliefs and fostering alternative attentional strategies, using techniques such as detached mindfulness to eliminate the cognitive-attentional syndrome and challenge maladaptive metacognitive beliefs (Wells, Reeves, Heal, Davies, Shields, Heagerty, & Capobianco, 2022).

Studies have shown promising results regarding the effectiveness of metacognitive therapy in treating social anxiety and other anxiety disorders (Solem, Wells, Kennair, Hagen, Nordahl, & Hjemdal, 2021; Lassen, Touil, Svendsen, Hasten, & Solem, 2022). In a recent study, Bagheri et al. (2024) examined the impact of metacognitive therapy on stress, emotion regulation, and self-esteem in individuals with social anxiety, concluding that this therapeutic approach is effective for anxiety disorders and their associated challenges (Bagheri, Sovabi, Abbasi, Taghavi, & Esrafilian, 2024). Given these findings, metacognitive therapy emerges as a treatment capable of improving various disorders, including anxiety disorders and their related difficulties. However, no study—either domestically or internationally—has specifically investigated the effects of metacognitive therapy on perseverative worry, fear of positive evaluation, and interpersonal sensitivity in students with social anxiety. This represents a significant research gap in the field of social anxiety. Therefore, the present study seeks to examine the effectiveness of metacognitive therapy in addressing perseverative worry, fear of positive evaluation, and interpersonal sensitivity in students with social anxiety disorder. The key research question is whether metacognitive therapy can reduce perseverative worry, fear of positive evaluation, and interpersonal sensitivity in students suffering from social anxiety disorder.

## METHOD

This study employed a quasi-experimental design with a pre-test, post-test, and a control group. The statistical population consisted of female psychology students at Najafabad Islamic Azad University. After completing the Social Anxiety Questionnaire, 40 students who scored high in social anxiety were selected to participate in the study. They were then randomly assigned to two groups of 20: an experimental group and a control group.

To conduct the study, after selecting the sample and assigning participants to groups, both groups completed the Fear of Positive Evaluation Questionnaire (Weeks et al.) and the Interpersonal Sensitivity Questionnaire (Boyce & Parker). The experimental group participated in seven weeks of 90-minute intervention sessions, while the control group received no intervention. At the end of the intervention, the same tests were



administered again as post-tests for both groups.

### Measurement Tools

- **Social Anxiety Questionnaire by Grabeck:** This questionnaire was developed by Ilina Jarabek in 1996 to measure social anxiety. It consists of 25 items, rated on a 5-point Likert scale (Almost Always, Often, Sometimes, Rarely, Rarely). This questionnaire was validated in Iran by Sam Daliri (2002) on a sample of 477 students, and its reliability and validity were reported as satisfactory. In the present study, the reliability of the instrument was calculated using Cronbach's alpha, which resulted in a coefficient of 0.87, indicating high reliability and strong measurement consistency.
- **Meta-Worry Questionnaire (MWQ):** Wells extracted the items related to meta-worry from the Anxious Thoughts Questionnaire and compiled them into an independent questionnaire titled the Meta-Worry Questionnaire. This questionnaire consists of 7 items, assessing concerns related to worrying itself. The reported Cronbach's alpha for this scale is 0.88 for worry frequency and 0.95 for beliefs about worry (Wells, 2011). The validity of the Meta-Worry Questionnaire in Iran was reported as 0.71 by Salmani, Hasani, Mohammadkhani, and Karami (2014). In the present study, its reliability was also assessed using Cronbach's alpha, yielding a coefficient of 0.74, which confirms satisfactory reliability.
- **Interpersonal Sensitivity Scale (IPSM):** This scale, was developed by Boyce and Parker (1989) to assess interpersonal sensitivity or sensitivity to social rejection. It consists of 36 items and includes 5 subscales: Interpersonal Awareness, Need for Approval, Separation Anxiety, Shyness, and Fragile Self-Esteem. The questionnaire is scored on a 4-point Likert scale. Boyce and Parker reported a Cronbach's alpha of 0.86 for the total scale. Additionally, they estimated the concurrent validity of this test with the clinical judgment of interpersonal sensitivity at 0.72, indicating a high level of concurrent validity. In the present study, Cronbach's alpha for the total scale was 0.86, confirming the high reliability of the data.
- **Fear of Positive Evaluation Questionnaire by Wicks, Hemberg, and Rödberg:** The Fear of Positive Evaluation Questionnaire was designed and developed by Wicks, Hemberg, and Rödberg in 2008 to measure fear of positive evaluation. The questionnaire consists of 10 items and uses a 5-point Likert scale to assess the fear of positive evaluation. The validity and reliability of this questionnaire in the study by Ghasempour and Fallah (2014) were reported as 0.89 and 0.76, respectively, indicating good validity. In the present study, the reliability of the questionnaire was calculated using Cronbach's alpha, resulting in a coefficient of 0.79, which indicates good reliability.

### Implementation and Data Analysis Method

After selecting the participants based on ethical principles, brief information regarding the topic and objectives of the research was provided to them. The participants were assured that the results of the study would be published in the form of a general conclusion, and they were informed that they were free to withdraw at any stage of the training. The questionnaires were initially completed by both groups and then the experimental group attended seven 90-minute sessions based on Wells' metacognitive therapy for anxiety disorders (Wells, 2011), while the control group received no treatment. After the completion of the training sessions, the interpersonal sensitivity scale and the fear of positive evaluation scale were administered as post-tests.

**Table 1: Description of Wells' Metacognitive Intervention Sessions**

Session One	<b>Teaching Metacognitive Strategies:</b> In this session, after introducing and familiarizing the participants, various definitions of metacognition were provided, followed by the presentation of major metacognitive strategies, which include: planning strategies, control and monitoring strategies, and organizing strategies.
Session Two	<b>Teaching the Stages of Metacognitive Execution:</b> In this session, the stages of metacognitive execution were outlined, including diagnostic evaluation and awareness of prior knowledge, planning, self-regulation, continuous monitoring, and review.
Session Three	<b>Teaching Dewey's Pragmatic Problem-Solving Approach:</b> During this session, various definitions of problems and problem-solving were discussed, followed by an examination of Dewey's pragmatic approach to problem-solving. The stages of this approach are: presenting the problem, defining the problem, designing a hypothesis, testing the hypothesis, and selecting the best hypothesis.
Session Four	<b>Teaching Gestalt Problem-Solving Approach (Problem-Solving through Insight):</b> In this session, problem-solving through insight was discussed, with its stages including: recognizing the problem, latent period, insight, retention of insight-based solutions, and generalization of insight-based solutions.



Session Five	<b>Teaching Critical Thinking in Learning:</b> In this session, the importance of critical thinking in learning was addressed, followed by various definitions of critical thinking, and frameworks for critical thinking were presented.
Session Six	<b>Teaching the Stages of Critical Thinking Execution:</b> These stages include recognizing the problem, defining, introducing, and understanding the nature of the problem, discovering possible solutions, acting on the discovered solutions, and reviewing and evaluating the results of the activities performed.
Session Seven	<b>Review of Previous Session's Exercises:</b> In this session, the exercises conducted in the previous session were reviewed, and post-assessment was carried out with the students.

## FINDINGS

The participants in this study consisted of 40 female students with social anxiety, who were randomly assigned to experimental and control groups, with 20 students in each group. The effects of the metacognitive intervention on the students are examined below. First, the descriptive statistics results are presented in Table 1.

**Table 2. Descriptive Findings of Variables (Fear of Positive Evaluation and Interpersonal Sensitivity) (Each Group: 20 Participants)**

Group	Index	Pre-Test			Post-Test		
		meta-worry	Interpersonal Sensitivity	Fear of Positive Evaluation	meta-worry	Interpersonal Sensitivity	Fear of Positive Evaluation
Control	Mean	69.5	40.4	89.55	69.3	40.25	89.7
	Standard Deviation	2.8562	2.0105	4.82837	2.90372	2.0995	4.80241
Experimental	Mean	69.95	38.6	87.55	66.55	35.55	84.25
	Standard Deviation	2.62528	2.08756	4.63936	2.81864	2.52305	4.86529

As shown in Table 2, the mean and standard deviation of worry in the experimental group were 69.95 and 2.62, respectively, in the pre-test, and 66.55 and 2.81, respectively, in the post-test. The mean and standard deviation of interpersonal sensitivity in the experimental group were 38.6 and 2.08, respectively, in the pre-test, and 35.55 and 2.52, respectively, in the post-test. The mean and standard deviation of fear of positive evaluation in the experimental group were 87.55 and 4.63, respectively, in the pre-test, and 84.28 and 4.86, respectively, in the post-test.

No significant changes were observed in the control group. To examine the significance of these changes, an analysis of covariance (ANCOVA) was applied.

The normality of data distribution in both groups was tested using the Shapiro-Wilk test. The results indicated that the assumption of normality for fear of positive evaluation and interpersonal sensitivity was satisfied in both the experimental and control groups. The Levene test results for the homogeneity of variance in fear of positive evaluation and interpersonal sensitivity were also confirmed. The results of the regression slope homogeneity assumption showed that the significance level of the interaction effect was not significant for all dependent variables, and the assumption of homogeneity of regression slopes was upheld. Furthermore, the M-box test results confirmed that the assumption of covariance matrix homogeneity was met. Since the assumptions of ANCOVA were satisfied, the results of the multivariate analysis of covariance are presented next.

**Table 3. Summary of Multivariate Analysis of Covariance Test Results**

Test	V	F	Degree of	Degree of	p	Eta
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	<b>a</b>	<b>l</b>	<b>u</b>	<b>e</b>	<b>Freedom (Hypothesis )</b>	<b>Freedom (Error)</b>	<b>Sq uar ed</b>
<i>Pillai's Effect</i>	0	7			4	33	0.872
	8	4					
	7	1					
<i>Lambda Wilks</i>	0	7			4	33	0.872
	1	4					
	2	8					
	8	1					
<i>Hotelling's Effect</i>	6	7			4	33	0.872
	8	4					
	0	8					
	1	1					
<i>Largest Root Test</i>	6	7			4	33	0.872
	8	4					
	0	8					
	1	1					

The results in Table 3 indicate that the *F* value for the Wilks' Lambda test [ $\eta = 0.87$ ,  $p > 0.001$ ,  $F = 74.81$ ] is statistically significant; therefore, the therapeutic interventions have had an effect on at least one of the dependent variables. Additionally, the Eta Squared value suggests that the intervention accounts for 87% of the variance in the dependent variables.

**Table 4. Results of Analysis of Covariance for Stereotypical Behavior and Social Interactions in Experimental and Control Groups.**

	<b>Source of Changes</b>	<b>sum of squares</b>	<b>df</b>	<b>mean square</b>	<b>F</b>	<b>Sig.</b>	<b>Eta squared</b>
<i>Meta-Worry</i>	<i>Pre-test Effect</i>	253.252	1	253.252	195.187	.000	.626
	<i>Group Effect</i>	75.922	1	75.922	58.515	.000	
<i>Fear of Positive Evaluation</i>	<i>Pre-test Effect</i>	171.357	1	171.357	195.028	.000	.672
	<i>Group Effect</i>	62.935	1	62.935	71.629	.000	
<i>Interpersonal Sensitivity</i>	<i>Pre-test Effect</i>	840.838	1	840.838	711.871	.000	.715
	<i>Group Effect</i>	103.843	1	103.843	87.915	.000	

The results in Table 4 indicate that after adjusting for the effects of the pre-test, there is a significant difference between the mean scores of the experimental and control groups in the post-test for the variables studied. Specifically, a significant difference was found between the experimental and control groups in the variable of cognitive distortions in the post-test ( $\eta = 0.626$ ,  $p = 0.001$ ). A significant difference was also observed in the fear of positive evaluation variable in the post-test ( $\eta = 0.72$ ,  $p = 0.001$ ). Additionally, there was a significant difference between the experimental and control groups in interpersonal sensitivity in the post-test ( $\eta = 0.74$ ,  $p = 0.001$ ). Based on the effect size, it can be concluded that the treatment was highly effective, with the greatest effectiveness observed in the interpersonal sensitivity variable.



## Discussion and Conclusion

The present study aimed to examine the effectiveness of metacognitive therapy on meta-worry, fear of positive evaluation, and interpersonal sensitivity in students with social anxiety disorder. The results indicated a positive effect of metacognitive therapy on meta-worry, fear of positive evaluation, and interpersonal sensitivity in students with social anxiety. In other words, after the seven-session metacognitive intervention, the mean scores of meta-worry, fear of positive evaluation, and interpersonal sensitivity in the experimental group significantly decreased compared to the control group. This finding suggests that students with social anxiety experience emotional and psychological difficulties, and if an intervention is applied, it is expected that their emotional and psychological issues will improve. The result of this hypothesis is consistent with findings from several studies (Wells et al., 2023; Vogel et al., 2016; Bagheri et al., 2024; Qasempour & Fallah, 1393; Brahimzadeh, Soleimani, & Sadeghi, 1402). In explaining the results of the hypothesis, it can be stated that metacognitive therapy is associated with changes in underlying cognitive style and metacognitive beliefs, which can significantly improve social anxiety (Wells, Reeves, Heal, Davies, Shields, Heagerty, 2024), and thus reduce meta-worry, fear of positive evaluation, and interpersonal sensitivity in individuals with social anxiety. In this therapeutic approach, changes in cognitive style (e.g., worry and self-focused attention) and metacognitive beliefs lead to a reduction in social anxiety issues such as fear of positive evaluation and interpersonal sensitivity (Qasempour & Fallah, 1393).

Meta-cognitive therapy focuses on an individual's awareness and regulation of their cognitive processes, helping the patient understand and manage their cognitive patterns, and shift focus from the content of their thoughts to the process of thinking itself (Wells, Reeves, Heal, Fisher, Doherty, Davies & Capobianco, 2023). This can lead to a reduction in meta-worry and fear of positive evaluation. Meta-cognitive therapy enhances emotional regulation skills, especially cognitive reappraisal, and expressive suppression, which indicates that students with social anxiety can benefit from improved strategies to manage their emotions, crucial for their overall well-being and social interactions (Bagheri et al., 2024). Therefore, it can be expected that this cognitive reappraisal can impact meta-worry, fear of positive evaluation, and interpersonal sensitivity in this group of students.

Vogel et al. (2016) stated in their study that meta-cognitive therapy helps improve participants' coping strategies in social situations by training them to shift their focus from internal anxieties to external stimuli. It can be a valuable tool in treating social anxiety disorder. They argue that this therapeutic approach is an alternative treatment that may be more effective than traditional cognitive-behavioral methods, particularly in enhancing attention control and reducing negative self-focused thoughts (Exner & Hansmeier, 2022). Meta-worry, fear of positive evaluation, and interpersonal sensitivity are also among the negative consequences that social anxiety disorder brings to individuals affected by it. Therefore, this therapy can be an appropriate treatment approach for reducing these negative feelings in individuals with social anxiety disorder.

In another explanation of the impact of meta-cognitive therapy on reducing meta-worry, fear of positive evaluation, and interpersonal sensitivity in students with social anxiety disorder, it can be stated that meta-cognitive therapy can be a valuable intervention for improving meta-cognitive beliefs in patients with social anxiety disorder. This is because it has implications for the development of targeted therapeutic strategies, which can enhance treatment outcomes for this population and offer benefits that appear to be both immediate and lasting (Vogel et al., 2016). This factor itself can increase the effectiveness of the intervention program on social anxiety-related issues in students, such as meta-worry, fear of positive evaluation, and interpersonal sensitivity. Ultimately, it can be said that meta-cognitive therapy, by increasing positive experiences, provides individuals with greater motivation to use techniques to reduce the unhealthy cycle of meta-cognitive beliefs and anxiety in various situations (Ebrahimzadeh, Soleimani & Sadeghi, 2023), which in turn can reduce meta-worry, fear of positive evaluation, and interpersonal sensitivity in students.

The findings of this study indicate that metacognitive therapy can be integrated into mental health support services for students, particularly those struggling with social anxiety. This, in turn, can lead to positive psychological, academic, and social outcomes, emphasizing the importance of focusing on mental health in educational environments. Furthermore, this study enhances the understanding of how targeted therapeutic approaches, such as metacognitive therapy, can have a positive impact on mental health outcomes in students with social anxiety and pave the way for further research and its application in clinical interventions. In summary, this study provides compelling evidence that metacognitive therapy is an effective intervention for reducing fear of positive evaluation and interpersonal sensitivity in students with social anxiety. Therefore, it can be considered a suitable therapeutic intervention for alleviating the problems of students suffering from social anxiety. Finally, based on the present study, it can be concluded that metacognitive therapy can be effective in reducing meta-worry, fear of positive evaluation, and interpersonal sensitivity in students with social anxiety disorder. Therefore, implementing such therapeutic interventions to improve the mental health of



students, who are going through one of the most important periods of their lives, can be beneficial.

The limitations of this study include the small sample size, which consisted only of female students with social anxiety disorder from Azad University of Najafabad in Isfahan, as well as the lack of a follow-up period. Therefore, caution should be exercised when generalizing the results to other populations. It is recommended that similar studies be conducted across different educational levels, universities, and with male participants, using larger sample sizes. The results of this study should be compared with future research to validate the findings. Additionally, integrating metacognitive therapy into treatment programs for individuals with social anxiety disorder could further enhance its therapeutic potential. Exploring this approach in various populations and contexts is encouraged. Incorporating a one-month follow-up period would provide valuable insights into the long-term sustainability of the therapeutic effects, demonstrating that the benefits of metacognitive therapy are not merely temporary. Thus, follow-up studies are crucial for understanding the enduring impact of this therapy.

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### REFERENCES:

- Bagheri, S. F., Savabi, N. V., Abbasi, A. Z., Taghavi, L. S., & Esrafilian, F. (2024). The Effectiveness of Metacognitive Therapy on Depression, Emotion Regulation, and Self-concept in Students with Social Anxiety Disorder: A Quasi-Experimental Study. [doi.org/10.5812/jihs-145992](https://doi.org/10.5812/jihs-145992)
- Behjat A, Mirshamsi Z, Karbalaee Saleh S, DashtBozorgi, Z. (2020). The Effectiveness of Rehabilitation Program of Dohsa-hou on Perceived Stress, Metaworry and Quality of Life of Hemodialysis Patients. *IJRN*. 7 (1), 44-54. <http://ijrn.ir/article-1-550-fa.html>
- Ding, N. (2024). Interpersonal sensitivity, social anxiety, and social networking site use among college students. *International Journal of Research Studies in Psychology*, 10(2). [doi.org/10.5861/ijrsp.2024.022](https://doi.org/10.5861/ijrsp.2024.022)
- Exner, C., & Hansmeier, J. (2020). Metakognitive Therapie (Vol. 76). Hogrefe Verlag GmbH & Company KG.
- Ebrahimzade, K., Soleymany, E., & Sadeghi, K. (2023). Comparison of the effectiveness of Metacognitive Therapy and assertiveness Training on Social Avoidance and Distress of Junior high school students with Foreign language Anxiety. *Knowledge & Research in Applied Psychology*, 24(2), 1-12. [doi.org/10.30486/jsrp.2021.1926422.2909](https://doi.org/10.30486/jsrp.2021.1926422.2909)
- Hall, M., Luo, A., Bhullar, N., Moses, K., & Wootton, B. M. (2024). Cognitive behaviour therapy for social anxiety disorder: a systematic review and meta-analysis investigating different treatment formats. *Australian Psychologist*, 1-14. [doi.org/10.1080/00050067.2024.2356804](https://doi.org/10.1080/00050067.2024.2356804)
- Hunger-Schoppe, C., Schweitzer, J., Hilzinger, R., Krempel, L., Deußner, L., Sander, A., ... & Lieb, H. (2022). Integrative systemic and family therapy for social anxiety disorder: Manual and practice in a pilot randomized controlled trial (SOPHO-CBT/ST). *Frontiers in Psychology*, 13, 867246. [doi.org/10.3389/fpsyg.2022.867246](https://doi.org/10.3389/fpsyg.2022.867246)
- Vogel, P. A., Hagen, R., Hjemdal, O., Solem, S., Smeby, M. C., Strand, E. R., ... & Wells, A. (2016). Metacognitive therapy applications in social anxiety disorder: an exploratory study of the individual and combined effects of the attention training technique and situational attentional refocusing. *Journal of Experimental Psychopathology*, 7(4), 608-618. <https://doi.org/10.5127/jep.054716>
- Jami, F., Shahabizadeh, F., Salarifar, M. H., Tabatabaee, T., & Ghanifar, H. (2022). The Effectiveness of Cognitive-Behavioral Education based on Intolerance of Uncertainty and Emotional Regulation on Behavioral Activation/Inhibition Systems and Generalized Anxiety Disorder of Students with Social Anxiety Disorder. *Journal of Nursing Education*, 11(3), 1-17. <http://jne.ir/article-1-1343-fa.html>
- Kennair, L. E. O., Solem, S., Hagen, R., Havnen, A., Nysæter, T. E., & Hjemdal, O. (2021). Change in personality traits and facets (Revised NEO Personality Inventory) following metacognitive therapy or cognitive behaviour therapy for generalized anxiety disorder: Results from a randomized controlled trial. *Clinical Psychology & Psychotherapy*, 28(4), 872-881. <https://doi.org/10.1002/cpp.2541>
- Lassen, E. R., Touil, M., Svendsen, T. L., Haseth, S., & Solem, S. (2022). Patient motivation in group metacognitive therapy for generalized anxiety disorder. *Psychotherapy Research*, 32(5), 585-597. <https://doi.org/10.1080/10503307.2021.2001068>
- Li, L. (2023). Treatment of social anxiety disorder by integrating digital news communication with psychological identification. *CNS Spectrums*, 28(S2), S68-S68. <https://doi.org/10.1017/S1092852923004236>
- Mihai, A. (2024). Anxietatea socială-factorul care condiționează succesul în procesul de învățare. *Revista de*



*Pedagogie*, 72(1), 153-166.

Nazemi, H., Najafi, M., Makvan Hoseini, S., Maleki, A., & Rahimian Boger, E. (2019). The Effectiveness of Virtual Reality Exposure Therapy in Reducing Symptoms of Social Avoidance and Distress in People with Social Anxiety Disorder. *Journal of Research in Behavioural Sciences*, 16(3), 389-399. <http://rbs.mui.ac.ir/article-1-620-en.html>

Nigar G, Khawaja JM, Strodl E. (2011). Intolerance of uncertainty and metaworry: Relative importance in discriminating GAD. *Queensland University of Technology*. <https://eprints.qut.edu.au/46270/>

Qasimpour, A, Fallah, A. (2014). The effectiveness of teaching emotional regulation strategies on the symptoms of fear of positive evaluation of adolescent boys with social anxiety disorder. *Journal of Community Health*, 8(4), 60-67.

Rawat, A., Sangroula, N., Khan, A., Faisal, S., Chand, A., Yousaf, R. A., ... & Yousaf, H. (2023). Comparison of Metacognitive Therapy Versus Cognitive Behavioral Therapy for Generalized Anxiety Disorder: A Meta-Analysis of Randomized Control Trials. *Cureus*, 15(5). [doi.org/10.7759/cureus.39252](https://doi.org/10.7759/cureus.39252)

Rassaby, M., Spaulding, I. G., & Taylor, C. T. (2024). Fear of positive evaluation and social affiliation in social anxiety disorder and major depression. *Journal of Anxiety Disorders*, 107, 102931. [doi.org/10.1016/j.janxdis.2024.102931](https://doi.org/10.1016/j.janxdis.2024.102931)

Shahandeh, M., & Nozarzadeh Arani, H. R. (2021). The Effectiveness of social-communication skills training on meta-cognitive beliefs and fear of positive and negative evaluation in high school students. *Social Psychology Research*, 11(43), 53-66. [doi.org/10.22034/spr.2021.233166.1488](https://doi.org/10.22034/spr.2021.233166.1488)

Solem, S., Wells, A., Kennair, L. E. O., Hagen, R., Nordahl, H., & Hjemdal, O. (2021). Metacognitive therapy versus cognitive-behavioral therapy in adults with generalized anxiety disorder: A 9-year follow-up study. *Brain and Behavior*, 11(10), e2358. [doi.org/10.1002/brb3.2358](https://doi.org/10.1002/brb3.2358)

Safikhani Gholizadeh, S., & Mahmoudi, A. (2019). The effectiveness of Metacognitive Therapy in a Group Method on Metacognitive Beliefs in female students with social anxiety disorder. *Armaghane Danesh*, 24(3), 540-554. <http://armaghani.yums.ac.ir/article-1-2150-en.html>

Salmani B, Hasani J, Mohammad-Khani Sh, Karami GhR. (2014). The efficacy of metacognitive therapy on metacognitive beliefs, metaworry and the signs and symptoms of patients with generalized anxiety disorder. *Feyz*, 18(5), 428-39. <https://feyz.kaums.ac.ir/article-1-2375-fa.pdf>

Vogel, P. A., Hagen, R., Hjemdal, O., Solem, S., Smeby, M. C., Strand, E. R., ... & Wells, A. (2016). Metacognitive therapy applications in social anxiety disorder: an exploratory study of the individual and combined effects of the attention training technique and situational attentional refocusing. *Journal of Experimental Psychopathology*, 7(4), 608-618. <https://doi.org/10.5127/jep.054716>

Walczak, M., Breinholst, S., Ollendick, T., & Esbjørn, B. H. (2019). Cognitive behavior therapy and metacognitive therapy: moderators of treatment outcomes for children with generalized anxiety disorder. *Child Psychiatry & Human Development*, 50, 449-458. <https://doi.org/10.1007/s10578-018-0853-1>

Wells, A. (2011). *Metacognitive therapy for anxiety and depression*. Guilford press.

Wells, A., Welford, M., King, P., Papageorgiou, C., Wisely, J., & Mendel, E. (2010). A pilot randomized trial of metacognitive therapy vs applied relaxation in the treatment of adults with generalized anxiety disorder. *Behaviour research and therapy*, 48(5), 429-434. [doi.org/10.1016/j.brat.2009.11.013](https://doi.org/10.1016/j.brat.2009.11.013)

Wells, A., Reeves, D., Heal, C., Davies, L. M., Shields, G. E., Heagerty, A., ... & Capobianco, L. (2022). Evaluating metacognitive therapy to improve treatment of anxiety and depression in cardiovascular disease: the NIHR funded PATHWAY research Programme. *Frontiers in psychiatry*, 13, 886407. [doi.org/10.3389/fpsy.2022.886407](https://doi.org/10.3389/fpsy.2022.886407)

Wells, A., Reeves, D., Heal, C., Fisher, P., Doherty, P., Davies, L., ... & Capobianco, L. (2023). Metacognitive therapy home-based self-help for anxiety and depression in cardiovascular disease patients in the UK: A single-blind randomised controlled trial. *PLoS medicine*, 20(1), e1004161. <https://doi.org/10.1371/journal.pmed.1004161>

Wells, A. (2005). Detached mindfulness in cognitive therapy: A metacognitive analysis and ten techniques. *Journal of Rational- Emotional & Cognitive Behavioral Therapy*, 23(4), 337-355. <http://dx.doi.org/10.1007/s10942-005-0018-6>

Zou, Y. (2024). The Impact of Social Anxiety on College Students. In *SHS Web of Conferences* (Vol. 193, p. 02010). EDP Sciences.