

Comparison of the Effectiveness of Mindfulness Therapy and Transactional Analysis on Sexual Function and Marital Commitment in Female Patients with Bipolar Disorder

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Article Info

Article type:

Original Research

How to cite this article:

Pidad, F., Ghasemi Motlagh, M., & Mafakheri, A. (2024). Comparison of the Effectiveness of Mindfulness Therapy and Transactional Analysis on Sexual Function and Marital Commitment in Female Patients with Bipolar Disorder. *Psychology of Woman Journal*, 5(4), 120-130.

<http://dx.doi.org/10.61838/kman.pwj.5.4.14>



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ABSTRACT

Objective: The aim of this study was to compare the effectiveness of mindfulness therapy and transactional analysis on sexual function and marital commitment in female patients with bipolar disorder.

Methods and Materials: In this study, 20 women with bipolar disorder, who referred to Gyrus Specialty Neurology and Psychiatry Clinic in Tehran, were selected through purposive sampling from April to August 2022 and were randomly assigned to three groups: mindfulness therapy, transactional analysis therapy, and a control group. All participants completed the Female Sexual Function Index (FSFI) by Rosen et al. (2000) and the Marital Commitment Questionnaire by Adams and Jones (1997) before and after the intervention. The mindfulness therapy group received eight sessions of 90 to 120 minutes, twice weekly, while the transactional analysis therapy group underwent nine sessions of 60 to 120 minutes, also twice weekly. Data were analyzed using descriptive statistics and repeated measures analysis.

Findings: The results indicated that both mindfulness therapy and transactional analysis therapy positively affected sexual function and marital commitment in female patients with bipolar disorder. Furthermore, the comparison of the effectiveness of the two therapies in all dimensions showed that mindfulness therapy had a greater impact on both sexual function and marital commitment in these patients compared to transactional analysis therapy.

Conclusion: Both mindfulness therapy and transactional analysis significantly improved sexual function and marital commitment in women with bipolar disorder, with mindfulness showing greater effectiveness. These findings suggest the potential benefits of incorporating mindfulness techniques into therapeutic practices for enhancing marital and sexual well-being.

Keywords: Mindfulness therapy, Transactional analysis, Sexual function, Marital commitment, Bipolar disorder

1. Introduction

Bipolar disorder is a chronic mental illness and one of the top 10 most disabling diseases worldwide (DuBow et al., 2021). Bipolar disorder is classified as a mood disorder characterized by at least one episode of mania or a mixed episode in an individual's lifetime. Most patients also experience one or more episodes of major depression at other times, and the majority of patients return to their normal state between these episodes (American Psychiatric Association, 2022). This disorder typically manifests in late adolescence or early adulthood (Sadock, 2015). According to the Diagnostic and Statistical Manual of Mental Disorders, the 12-month prevalence of bipolar I disorder in the United States is approximately 0.6%, while in 11 other countries, it ranges from 0.0% to 0.6%. The lifetime prevalence ratio of bipolar I disorder between men and women is approximately 1.1 to 1. The international 12-month prevalence of bipolar II disorder is about 0.3% (Sadock, 2015). Furthermore, the prevalence of mood disorders in Iran is reported at 4.29%, with the prevalence of bipolar disorder at 0.96% (Mahmoodi et al., 2019).

Bipolar disorder affects many aspects of a patient's life, including marital interactions and marital commitment (Hawke et al., 2013). Commitment is considered a decision to continue a marital relationship and is defined as psychological attachment to a partner. Marital commitment is perceived as the couple's desire to preserve the marriage and remain faithful to their spouse, family, and values (Hou et al., 2019; Mehrpouya et al., 2022). Researchers divide commitment into three distinct components: personal commitment, moral commitment, and structural commitment. These components are related to relationship satisfaction. Personal commitment refers to an individual's desire and interest in continuing the marriage, based on attraction and marital satisfaction. Moral commitment refers to the obligation individuals feel to remain in the relationship. Structural commitment includes the availability of alternative social relationships (Saadati Gorji, 2021). In many cases, marital commitment strengthens the sense of obligation to maintain the marriage as a moral or social duty, thus reducing the inclination toward divorce and encouraging efforts to improve marital quality (Mortezayi & Rezazadeh, 2020). Studies show that low levels of marital commitment can lead to dissatisfaction and divorce (Mehrpouya et al., 2022). Moreover, individuals with bipolar disorder often experience interpersonal conflicts and

marital dissatisfaction, with divorce rates being three times higher in such couples (Arab Vornusfaderani et al., 2017).

As outlined above, the literature also confirms the impact of bipolar disorder on sexual function (Lee et al., 2015). Sexual function refers to how the body responds during various stages of the sexual response cycle. Aspects of sexual function include desire, arousal, orgasm, and ejaculation (Agustus et al., 2017). Many researchers believe that sexual dysfunction plays a significant, bidirectional role in marital problems, particularly among individuals with mental illnesses. Additionally, sexual dysfunction may exacerbate certain illnesses or delay treatment response (Namli et al., 2018). However, there is limited information on the sexual and marital functioning of individuals with severe mental illnesses (Aggarwal et al., 2019). According to studies, 40% of women experience sexual dysfunction in their marital relationships, and they are more affected by sexual problems than men (Karami et al., 2017). However, women's sexual function and dysfunction have historically been under-researched and poorly understood (Kammerer-Doak & Rogers, 2021).

Given the high prevalence and negative consequences of bipolar disorder, addressing therapeutic interventions is crucial. Several therapeutic approaches have been proposed, including Acceptance and Commitment Therapy (ACT) and mindfulness therapy, both of which are considered part of the third wave of cognitive-behavioral therapies. Mindfulness does not involve escaping from anxious thoughts and feelings but rather recognizing them as transient (Hoge et al., 2020). Mindfulness can help individuals break free from automatic thoughts, unhealthy habits, and behavioral patterns, thus playing a key role in regulating behavior. Therefore, mindfulness emphasizes developing a new relationship with thoughts, rather than changing them. This therapy is a structured, short-term, eight-session intervention, where practical training is a critical component. Unlike traditional cognitive therapy, its aim is not to change the content of thoughts but to cultivate a different relationship with thoughts, emotions, and feelings, maintaining full and moment-by-moment attention with an attitude of acceptance and non-judgment. Research indicates that mindfulness-based cognitive training has a significant impact on generalized anxiety disorder (Pourfaraj & Miladi, 2022), sexual relationships (Segal et al., 2018), sexual quality of life (Koerner & Jacobson, 2019), anxiety, and dysfunctional attitudes (Hazlett-Stevens, 2022) in both clinical and non-clinical populations.

Another approach used in this study is Transactional Analysis (TA), a psychological framework introduced by Eric Berne in the 1950s (Clarkson, 2013). This perspective is notable in several respects. First, as a contemporary psychoanalytic approach, it has gained a prominent position among systemic and analytical perspectives. Thus, it can be used more confidently in preventing and treating behavioral and interpersonal issues within the family system (Zamani et al., 2018). Many experts believe that the adaptive processes of couples that influence marital satisfaction include proper behavioral exchange, active expression of affection and positive emotions, effective communication for resolving conflicts and problems, fulfilling essential life tasks, mutual support, sexual satisfaction, shared beliefs and expectations, and high communication skills in dealing with life events (Polenick et al., 2017; Powell, 2015). Research shows that this psychotherapy approach increases positive emotions (Sardarpur et al., 2016), sexual satisfaction (Honari, 2014), strengthens positive personality states, reduces clinical symptoms, enhances happiness (Reed, 2015), and improves psychological well-being (Haghighi Cheli et al., 2019).

In light of the above, while various approaches and therapies have been employed to assist with these disorders, without comparison, it is difficult to evaluate whether any treatment method is the "best" for the condition it is used for. Moreover, any comparison should be fair, though defining fairness in such cases is challenging and often debated in research. Determining whether a comparison is fair is not always straightforward. Comparisons, likely a well-recognized human feature, are often based on perception. For example, a patient may feel they recover faster with a specific treatment compared to a previous method, but it would not be prudent for their physician to use this information to guide all patients toward that treatment. In summary, the comparative effectiveness of mindfulness therapy and transactional analysis in reducing bipolar disorder symptoms has been neglected by researchers. Yet, there is a need for more research to evaluate the efficacy of these therapies in clinical psychological disorders. According to existing research within the country, this study is the first to determine the difference in effectiveness between these two therapies for bipolar disorder. Additionally, as psychological therapies should move toward distinguishing effective treatments from ineffective ones, clinical specialists must establish criteria to assess whether a therapy is clinically meaningful. These criteria will also help psychologists review the results of previously published therapies, potentially leading them to reconsider

their therapeutic approaches. Therefore, measuring the effectiveness of clinical interventions—whereby the expected therapeutic outcomes are objectively defined and the necessary data collected and analyzed—is a key part of identifying clinically meaningful and effective therapies. Consequently, comparing the effects of mindfulness therapy and transactional analysis will enable therapists to choose the correct treatment and reduce unsuccessful treatment outcomes. Based on the results of various studies on the efficacy and positive effects of therapeutic methods in reducing psychological symptoms, as well as the effectiveness of both treatments for bipolar disorder, the question arises: which of these two methods has greater effectiveness? Thus, the present study aims to answer whether the effectiveness of mindfulness therapy and transactional analysis differs in terms of sexual function and sexual satisfaction in female patients with bipolar disorder.

2. Methods and Materials

2.1. Study design and Participant

This study is an applied research with a quasi-experimental design, utilizing a pre-test and post-test with two experimental groups and one control group, along with a follow-up phase. The target population included all female patients diagnosed with bipolar affective disorder who visited the Gyrus Specialty Neurology and Psychiatry Clinic in Tehran during the research period. Based on the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), these patients were diagnosed with bipolar disorder by psychotherapists. From this population, patients were selected through voluntary convenience sampling and randomly (by lottery) assigned to two equal groups. To obtain the sample, the researcher visited the Gyrus Specialty Neurology and Psychiatry Clinic in Tehran, reviewed patient files, and consulted with psychiatrists and psychotherapists at the clinic. Out of 35 patients diagnosed with bipolar disorder, 30 patients met the inclusion criteria and remained in the study after fulfilling the conditions for participation. They were randomly divided into two equal groups (15 in the mindfulness therapy group and 15 in the transactional analysis therapy group).

The inclusion criteria were: being married, consenting to participate in the study by signing a consent form, being in a relatively recovered state (i.e., not experiencing acute manic symptoms), not being in an acute phase of the disorder, not having received psychotherapy in the past six months, not having experienced acute stressful events in the past six

months, and not having a history of substance abuse, including drugs, psychotropics, or alcohol. Exclusion criteria included missing more than two therapy sessions, participating in concurrent therapy programs aimed at addressing sexual or marital issues, or participating in concurrent therapy for other psychological issues.

2.2. Measures

2.2.1. Sexual Function

Female Sexual Function Index (FSFI), developed by Rosen et al. (2000), consists of 19 items that assess sexual function in women. The questions are scored on a Likert scale from 0 to 5, and the total score is obtained by summing the individual item scores. A person's score on this index is calculated across six domains: desire, arousal, vaginal lubrication, orgasm, satisfaction, and pain. The total sexual function score is the sum of the scores across the six domains, with the maximum possible score being 36. Scores below 28 are considered indicative of sexual dysfunction. The validity and reliability of this questionnaire were confirmed by Rosen et al. (2000). In the study by Babayi et al. (2019), Cronbach's alpha for this questionnaire was calculated at 0.95 (Babayi et al., 2019).

2.2.2. Marital Commitment

Marital Commitment Inventory (DCI), developed by Adams and Jones (1997a), contains 44 items and measures three dimensions of marital commitment: personal commitment (commitment to the spouse based on attraction to the spouse), moral commitment (commitment to the marriage based on the sanctity and respect of the marital relationship), and structural commitment (commitment to the spouse and marriage based on a sense of obligation or fear of the consequences of divorce). Responses are scored on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The highest possible score is 172, and the lowest is 44. Scores close to 172 indicate high commitment, while scores close to 44 indicate low commitment. Cronbach's alpha for the three subscales in the study by Adams and Jones (1997) was reported as 0.91, 0.89, and 0.86, respectively. In the study by Mohammadi et al. (2014), Cronbach's alpha for the entire questionnaire was 0.87, indicating satisfactory reliability and internal consistency (Mohammadi et al., 2014).

2.3. Interventions

2.3.1. Mindfulness Therapy

Mindfulness therapy was conducted over 8 sessions, each lasting 90 to 120 minutes, twice weekly, according to a structured protocol. The sessions were designed to allow participants to freely express their concerns and receive treatment comfortably (Kabat-Zinn, 2009; Malourdi Desjordi et al., 2022; Pourfaraj & Miladi, 2022; Segal et al., 2018).

Session 1: The first session begins with the pre-test, establishing rapport with the participants, and conceptualizing the problem. The goal is to help participants become comfortable with the therapy process and gain a basic understanding of mindfulness and how it can help address their issues.

Session 2: Participants are introduced to relaxation techniques, specifically muscle relaxation. After a brief review of the previous session, the therapist explains how to perform relaxation by tensing and relaxing muscles, focusing on the appropriate posture for the exercise.

Session 3: In this session, muscle relaxation is practiced with six different muscle groups, this time with participants' eyes closed. At the end of the session, participants are assigned a homework task to practice the muscle relaxation technique at least once before the next session. A simple instruction sheet is provided.

Session 4: This session focuses on teaching mindful breathing techniques. After a brief review of the previous session, participants learn how to focus on their breath as a way to center their attention and calm their mind.

Session 5: The body scan technique is introduced in this session after a brief review of previous lessons. At the end of the session, participants are given a homework assignment to practice mindful eating by focusing on their sense of taste during at least one meal, preferably with their family.

Session 6: This session covers mindfulness of thoughts. After a short review of previous practices, participants learn to observe their thoughts without judgment, increasing their awareness of how their mind works.

Session 7: This session is a consolidation of the mindfulness skills learned in Sessions 4, 5, and 6. Participants practice each technique (mindful breathing, body scan, and mindfulness of thoughts) for 20 to 30 minutes to reinforce their skills.

Session 8: In the final session, participants are encouraged to apply the mindfulness techniques they have

learned to their marital and sexual life. The session concludes with the post-test, taking about 30 minutes to assess their progress and outcomes.

2.3.2. Transactional Analysis

The transactional analysis group also participated in sessions lasting 60 to 120 minutes, twice weekly, over nine sessions, following a structured protocol (Berne, 2020; Clarkson, 2013; Haghighi Cheli et al., 2019; Honari, 2014; Keyvan et al., 2022; Stewart & Jones, 2021).

Session 1: The first session involves administering the pre-test, establishing rapport with the participants, and conceptualizing the problem. The first 30 minutes of the session are dedicated to the pre-test.

Session 2: Participants are introduced to the “Child ego state” and its signs. The therapist explains the four life positions (decision-making states) and how they affect personal and interpersonal dynamics.

Session 3: In this session, participants are introduced to the “Parent ego state” with practical examples of its signs. After a short review of the previous session, participants explore how this state influences their behavior and relationships.

Session 4: This session focuses on the “Adult ego state” and the reinforcement of responsibility. After a brief review, participants learn how to strengthen their rational and responsible decision-making capacities.

Session 5: Participants are introduced to the concept of the life script and its role in decision-making. After reviewing the previous session, participants explore how their life story influences their choices and relationships.

Session 6: This session covers types of transactions and their signs. After a brief review, participants learn about the

dynamics of communication and how different types of exchanges affect their interactions with others.

Session 7: This session focuses on understanding games and their role in interpersonal relationships. Participants are taught how to recognize and manage games in their relationships after a review of the previous session.

Session 8: Participants are introduced to the concept of strokes (forms of recognition and acknowledgment) and how they influence relationships. After a brief review of the previous session, the therapist explains the different types of strokes and their impact.

Session 9: In the final session, participants are encouraged to apply the transactional analysis techniques they have learned in their marital and sexual life. The session concludes with the post-test, which lasts about 30 minutes, to assess their progress and outcomes.

2.4. Data Analysis

In this study, descriptive analysis was used to describe the collected data, and the results were analyzed using SPSS 26 statistical software. Descriptive statistics (such as mean and standard deviation) were used to describe the data. In inferential statistics, the Shapiro-Wilk test was used to assess normality. Repeated measures ANOVA was applied to examine between-group differences, considering both the within-group factor (test) and the between-group factor (group membership). Tukey’s post hoc test was used to compare the experimental groups with each other and with the control group.

3. Findings and Results

In Table 1, the main variables, including sexual function and marital commitment, are described using mean and standard deviation statistics.

Table 1

Mean and Standard Deviation of Pre-test, Post-test, and Follow-up Scores for Sexual Function, Sexual Satisfaction in Experimental and Control Groups

Dependent Variable	Group	Pre-test Mean	Pre-test SD	Post-test Mean	Post-test SD	Follow-up Mean	Follow-up SD
Sexual Function	Mindfulness	21.66	4.29	30.38	5.61	28.42	4.99
	Transactional Analysis	19.07	3.74	24.04	4.06	23.32	3.37
	Control	25.85	4.69	25.55	4.25	25.00	4.73
Marital Commitment	Mindfulness	80.91	10.23	114.14	10.29	109.11	10.08
	Transactional Analysis	91.97	9.63	103.86	9.96	101.67	9.26
	Control	94.01	9.61	92.87	9.38	93.75	9.30

Additionally, all skewness and kurtosis values are within the range of (-2 to 2), indicating that the distribution is not skewed or kurtotic. The Shapiro-Wilk test was used to assess the normality assumption. The null hypothesis for normality of the score distribution in all three groups for both sexual function and marital commitment variables was confirmed, meaning that the assumption of normality for the pre-test

distribution in all three groups was met. Furthermore, the results showed that the sphericity assumption was satisfied based on the results of the Mauchly's test of sphericity, with values of 0.863 and 0.701, both non-significant ($p = 0.813$ and $p = 0.530$), confirming the homogeneity of variances across the three time points of the study.

Table 2

Results of Repeated Measures ANOVA for Examining the Effectiveness of Mindfulness and Transactional Analysis on Sexual Function and Marital Commitment

Treatment	Source	Sum of Squares	df	Mean Squares	F	p
Mindfulness (Sexual Function)	Time	1016.817	1	1016.817	318.492	0.000
	Time * Group	1000.417	1	1000.417	313.798	0.000
	Error	89.267	42	3.188		
Transactional Analysis (Sexual Function)	Time	504.60	1	504.60	131.635	0.000
	Time * Group	493.06	1	493.06	128.626	0.000
	Error	107.33	42	3.833		
Mindfulness (Marital Commitment)	Time	805.514	1	805.514	306.054	0.000
	Time * Group	980.227	1	977.041	443.229	0.000
	Error	79.101	42	5.111		
Transactional Analysis (Marital Commitment)	Time	590.70	1	590.70	222.476	0.000
	Time * Group	507.41	1	505.14	201.410	0.000
	Error	73.80	42	4.219		

The results of Table 2 show that the effects of mindfulness and transactional analysis interventions are statistically significant ($p < 0.05$), indicating that the post-

test means of sexual function and marital commitment in both groups had significantly changed.

Table 3

Results of Repeated Measures ANOVA for Between-Group Comparison of the Effectiveness of Mindfulness and Transactional Analysis on Sexual Function and Sexual Satisfaction

Variables	Source	Sum of Squares	df	Mean Squares	F	Significance	Eta Squared	Power
Mindfulness (Sexual Function)	Group	6100.900	1	6100.900	7.731	0.010	0.579	0.602
	Error	7776.43	42	2770.730				
Transactional Analysis (Sexual Function)	Group	1095.511	1	1095.511	1.358	0.015	0.360	0.379
	Error	30005.9	42	1154.1				
Mindfulness (Marital Commitment)	Group	7365.556	1	7365.556	11.203	0.001	0.588	0.607
	Error	6679.41	42	4536.203				
Transactional Analysis (Marital Commitment)	Group	2030.763	1	2196.400	7.407	0.004	0.394	0.403
	Error	2014.15	42	1682.15				

According to the results in Table 3, the main effect of group for the variable sexual function in the mindfulness group ($F = 7.731$, $sig \leq 0.000$) and transactional analysis group ($F = 1.358$, $sig \leq 0.015$) was significant. Based on the eta-squared, 57.9% of the changes in sexual function were due to the effect of mindfulness intervention, and 36% of the changes were due to the effect of transactional analysis. The

main effect of group for marital commitment was also significant for the mindfulness group ($F = 11.203$, $sig \leq 0.000$) and transactional analysis group ($F = 7.407$, $sig \leq 0.015$), where 60.7% of the changes in marital commitment were attributable to mindfulness, and 40.3% were due to transactional analysis.

Table 4

Summary of Tukey Post-Hoc Test Results to Determine Differences Between Pre-test, Post-test, and Follow-up in the Experimental Groups

Pre-test	Stages	Mean Difference	Standard Error	Sig.
Sexual Function	Post-test	0.695	0.152	0.001
	Follow-up	0.724	0.152	0.001
Post-test	Follow-up	0.255	0.152	0.431
Sexual Satisfaction	Post-test	0.709	0.170	0.001
	Follow-up	0.448	0.170	0.001
Post-test	Follow-up	0.370	0.170	0.328

The results of [Table 4](#) indicate that there is a significant difference in sexual function and marital commitment scores between the pre-test and post-test, as well as between the pre-test and follow-up stages. However, the difference between the post-test and follow-up stages was not significant, indicating stability in the treatment effect. The

comparison of means shows that sexual function and marital commitment in bipolar patients significantly improved in the post-test and follow-up stages compared to the pre-test stage. Mindfulness therapy had a greater impact than transactional analysis on these outcomes.

Table 5

Summary of Tukey Post-Hoc Test Results for the Two Experimental Groups

Variable	Groups	Mean Difference	Standard Error	Sig.
Sexual Function	Mindfulness – Transactional Analysis	1.35	0.184	0.001
Marital Commitment	Mindfulness – Transactional Analysis	2.84	0.888	0.001

The results of [Table 5](#) show a significant difference in sexual function and marital commitment scores between the mindfulness group and the transactional analysis group in female patients with bipolar disorder.

4. Discussion and Conclusion

The results demonstrated that mindfulness therapy and transactional analysis had a significant impact on the dependent variables. In other words, there was a significant difference between the experimental and control groups in at least one of the variables of sexual function and marital commitment. This finding is consistent with previous studies ([Chadwick et al., 2011](#); [Kamran et al., 2022](#); [Malourdi Desjordi et al., 2022](#)).

To explain these findings, the unique features of both the transactional analysis and mindfulness approaches can be highlighted. The use of mindfulness techniques expands an individual's awareness of script patterns, games, dramas, ego states, and transactions, helping the person adopt a third-person perspective on their moment-to-moment awareness ([Zvelc et al., 2011](#)). In fact, using mindfulness exercises facilitated the growth of the Adult ego state in bipolar patients, as it taught them how to maintain contact with their body and senses in the here and now. Such changes had both

direct and indirect effects on improving marital commitment and sexual function in women. Mindfulness exercises were beneficial in the process of changing scripts, and participants gained significant benefits from simple daily mindfulness practices. Mindfulness can be considered a key aspect of the integrated Adult ego and central to the process of integrating the Adult state. Thus, mindfulness therapy had positive effects on increasing self-regulation, improving sexual function, and enhancing marital commitment in the female patients with bipolar disorder participating in this study ([Aaberg, 2016](#)).

Regarding the greater effectiveness of mindfulness therapy compared to transactional analysis, the capacity of mindfulness to remain in the present moment and its non-judgmental nature likely enhanced individuals' ability to select more useful and effective responses to interpersonal interactions, preventing automatic and hasty reactions. This deep and thoughtful cognitive process can promote better communication and acceptance in marital relationships. Furthermore, the use of mindfulness techniques increased compassion, kindness, and self-love. As individuals who are kind to themselves tend to validate and trust their own experiences more and rely less on others for emotional approval and security, they are likely to experience higher

marital satisfaction. Marital satisfaction, in turn, contributes to increased marital commitment.

The greater effectiveness of mindfulness therapy compared to transactional analysis can also be attributed to the nature of mindfulness. Extensive health psychology research emphasizes how mental and behavioral processes, such as controlling and accepting negative emotions, reducing arousal, decreasing internal alarm, relaxation techniques, and problem-solving skills, can help individuals cope with stressful situations. Mindfulness's effectiveness in enhancing sexual function likely stems from variables such as increased relaxation and internal awareness through mindfulness techniques, reduced negative emotions related to unpleasant thoughts and emotions, increased distress tolerance, and training in identifying and replacing dysfunctional and negative beliefs. Additionally, it appears that mindfulness-based cognitive therapy exercises, which increase awareness of the present moment through techniques such as focusing on breathing and the body, have beneficial effects on individuals' coping abilities (Hazlett-Stevens, 2022).

Although more limited in scope than mindfulness, transactional analysis therapy was also effective. Transactional analysis counseling is a tool for improving communication and mutual understanding in marital relationships. The simple concepts of transactional analysis provide a basis for enriching couples' communication by equipping them with tools to understand themselves and their spouse. They learn more effective ways to interact and recognize each other (Morris, 2006). It is clear that as individuals become aware of their personality structure, they recognize and expand more of their abilities, which has a significant impact on reducing mood disorders and regulating social rhythms. The main goals of transactional analysis counseling are to improve communication skills, increase awareness of communication styles (such as stroke economy, transactions, and games), facilitate emotional expression and management, expand the client's resources, and prevent distress. Additionally, transactional analysis counseling helps individuals achieve autonomy (the opposite of dependent symbiosis) and use each ego state freely and consciously by keeping the Adult ego in control (Morris, 2006). Achieving autonomy involves freeing up awareness, spontaneity, and intimacy, allowing women with bipolar disorder to gain the freedom to choose and break free from the constraints of games and scripts. They can give and receive strokes openly and honestly (without ulterior transactions), fostering spontaneity in their relationships.

Naturally, achieving such a level of autonomy allows them to experience clearer, healthier, and more committed interpersonal interactions with their spouses, leading to increased sexual desire, arousal, and reduced sexual dysfunction, positively impacting marital relationships.

Regarding the impact of transactional analysis on sexual satisfaction, it is important to note that according to transactional analysis teachings, individuals are constantly in dynamic interaction and exchanging information with other systems (Clarkson, 2013; Honari, 2014). Thus, its communication teachings seem well-suited for improving exchanges between individuals. Transactional analysis teaches individuals about complementary, crossed, and ulterior transactions, helping them establish more effective communication by recognizing their own and others' "ego states," especially by paying attention to verbal and non-verbal cues. Moreover, using techniques to suppress the "Parent" ego state of the other party helps individuals manage potentially conflict-ridden situations by having their strengthened Adult ego oversee the situation and create constructive, rather than destructive, relationships. Transactional analysis teachings, which emphasize creating an intimate environment and avoiding psychological games, as well as refraining from offering negative, unconditional strokes and criticism, can prevent feelings of ill-will from the other party. Additionally, transactional analysis techniques regarding strokes, providing strokes, intimacy, open expression of feelings, and self-disclosure in a psychologically safe and empathetic environment can reduce existing negative interactions and increase marital commitment.

5. Limitations and Suggestions

This study faced some limitations. Despite the researcher's efforts to implement the therapy protocols precisely, some challenges in working with individuals with bipolar disorder cannot be ignored, which was one of the research limitations. The therapist for both models was the same person, which might have led to overlap in the effects. Few women were willing to participate in face-to-face therapy, as they found it confrontational. Therefore, it is predicted that the inclusion of face-to-face therapy in the experiment posed significant challenges in recruiting participants. Personality differences and previous experiences of participants in the therapy groups may have influenced the results. Additionally, participants' attitudes toward the assessments, their level of cooperation with the

researcher, and their sincerity and commitment to fully adhering to the educational protocols were factors beyond the researcher's control and could have affected the results. Although participants were asked to refrain from engaging in any other therapy programs addressing sexual issues, there was still the possibility that some patients participated in other therapies.

It is recommended that mindfulness therapy workshops be offered at universities. Educational authorities are encouraged to include training on sexual function, sexual satisfaction, and marital commitment in their curricula to prevent behavioral disorders. Moreover, the lack of a comprehensive system for recording medical, psychiatric, and psychotherapeutic records represents a significant gap in conducting clinical research and providing services to patients with bipolar disorder. Establishing such a system would facilitate more precise research of this kind. Further research with larger sample sizes and culturally diverse groups is recommended to further validate the effectiveness and applicability of these findings. Similar studies should be conducted with other patient populations, not just those with bipolar disorder, and the results compared. Finally, it is suggested that the present study be replicated across other centers (both private and public) to increase the generalizability of the results.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

This study adhered to all ethical principles. Initially, participants were informed about the research's objectives and procedures. All participants provided written informed consent. The study complied with all APA ethical standards and the Helsinki Declaration guidelines.

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