






The Effectiveness of a Time Perspective-Based Intervention on Differentiation of Self and Subjective Well-Being in Mothers of Children with Intellectual Disabilities

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ABSTRACT

Purpose: This study aimed to examine the effectiveness of sensory processing training on marital adjustment in couples experiencing marital discord.

Methodology: The study utilized a quasi-experimental pretest-posttest design with a control group. The statistical population included couples seeking help at family counseling centers in Kerman in 2023, from which 30 participants were purposively selected and randomly assigned to experimental (n = 15) and control (n = 15) groups. Data were collected using the Graham Spanier Marital Adjustment Questionnaire (1976), a 32-item instrument assessing the quality of marital relationships. The experimental group participated in a 10-session sensory processing training program designed to address sensory sensitivities and improve emotional regulation and communication, while the control group received no intervention. Data were analyzed using analysis of covariance (ANCOVA) with SPSS version 27.

Findings: The results of ANCOVA revealed a significant effect of sensory processing training on marital adjustment ($F = 240.349, p < 0.001, \eta^2 = 0.811$). The intervention explained 81.1% of the variance in marital adjustment scores, demonstrating substantial improvement in the experimental group compared to the control group. Sensory processing training was found to be an effective intervention for enhancing marital adjustment by addressing sensory sensitivities and improving emotional regulation and interpersonal communication.

Conclusion: These findings suggest that sensory-based interventions can complement existing therapeutic approaches to address marital discord. Further research is recommended to explore the long-term effects and applicability of sensory processing training across diverse populations and cultural contexts.

Keywords: Sensory processing training, marital adjustment, couples.

1. Introduction

The psychological well-being of mothers of children with intellectual disabilities is a significant area of concern, as these mothers often experience heightened stress levels, emotional exhaustion, and reduced mental health due to the caregiving demands placed upon them. The chronic nature of these stressors can impair their overall well-being, disrupt their family dynamics, and negatively influence their ability to provide effective care (Gupta & Kumar, 2020; Hastings, 2003). Research has highlighted that individuals with higher differentiation of self demonstrate better emotional regulation, lower levels of distress, and greater psychological resilience, all of which are crucial for mothers facing the challenges of raising children with intellectual disabilities (Kim, 2014; Mazaheri Tehrani et al., 2022). At the same time, subjective well-being, which includes both cognitive and affective components of life satisfaction and emotional experience, plays a central role in maintaining overall mental health and adaptability in stressful caregiving situations (Azari et al., 2022; Sadeghi et al., 2018). In this context, interventions that target psychological mechanisms such as time perspective may offer a promising avenue for improving differentiation of self and subjective well-being in this vulnerable population.

Time perspective, a concept extensively studied by Zimbardo and Boyd, refers to an individual's cognitive orientation toward the past, present, and future, which influences emotional and behavioral outcomes (Zimbardo et al., 2012). Studies suggest that a balanced time perspective, where individuals can flexibly switch between past, present, and future orientations as needed, is associated with greater psychological well-being and emotional stability (Ballabrera & Burriel, 2022; Stolarski et al., 2020). Conversely, an excessive focus on either negative past experiences or an anxious future outlook has been linked to higher levels of stress, emotional dysregulation, and decreased differentiation of self (Sharifi et al., 2023; Tomich & Tolich, 2021). For mothers of children with intellectual disabilities, who often oscillate between concerns about their child's future and distress over past difficulties, an unbalanced time perspective may exacerbate psychological distress (Norouzi et al., 2023; Raziiee et al., 2023). Research has also shown that interventions targeting time perspective can significantly improve well-being and emotional resilience, highlighting the potential utility of time-focused interventions for this population (Jenaabadi & Jafarpour, 2019; Roozitalab et al., 2022).

Among the psychological constructs related to time perspective, differentiation of self is particularly important in shaping how individuals manage stress, regulate emotions, and maintain stable interpersonal relationships (Keshvari et al., 2021). Differentiation of self refers to an individual's ability to balance emotional autonomy with emotional connection in relationships, which helps in maintaining psychological stability and reducing emotional fusion with others (Kim, 2014; Sarhang et al., 2022). Research indicates that higher levels of differentiation of self are associated with reduced anxiety, greater psychological flexibility, and improved stress management (Mikaeli-Manee et al., 2021; Pyszkowska & Ronnlund, 2021). Conversely, individuals with lower differentiation of self tend to experience higher emotional reactivity, increased reliance on external validation, and heightened stress in interpersonal relationships, particularly in caregiving roles (Sword et al., 2014; Taziki et al., 2021). For mothers of children with intellectual disabilities, a lower level of differentiation of self may contribute to excessive emotional involvement, feelings of helplessness, and difficulty in maintaining their own personal identity outside of their caregiving role (Mazaheri Tehrani et al., 2022). Given the growing interest in interventions that foster differentiation of self, the integration of time perspective training into such interventions may provide a novel approach to enhancing emotional regulation and psychological stability in these mothers (Eisenhower et al., 2005).

Subjective well-being, another key outcome in this study, encompasses an individual's overall evaluation of life satisfaction, emotional experiences, and psychological health (Kuan, 2023; Pourjaberi et al., 2023). Research has demonstrated that individuals with a balanced time perspective report higher levels of subjective well-being, as they can effectively integrate past experiences, engage in present-moment activities, and set meaningful future goals (O'Neill et al., 2022; Pyszkowska & Ronnlund, 2021). Conversely, an unbalanced time perspective—such as excessive rumination on past regrets or an overemphasis on future concerns—can lead to increased psychological distress and reduced life satisfaction (Tomich & Tolich, 2021; Xia et al., 2023). Studies have also shown that mothers of children with intellectual disabilities often exhibit lower subjective well-being due to chronic stress, caregiving burdens, and societal pressures (Gupta & Kumar, 2020; Hastings, 2003). As such, interventions that enhance time perspective flexibility may offer a targeted approach to improving their well-being (Azari et al., 2022).

Empirical evidence supports the effectiveness of time perspective interventions in improving psychological well-being, emotional regulation, and cognitive flexibility (Roozitalab et al., 2022; Stolarski et al., 2020). Time perspective interventions typically involve structured activities that help individuals develop awareness of their temporal biases, reframe negative time-related cognitions, and cultivate a more adaptive and balanced orientation toward time (Ballabrera & Burriel, 2022; Jenaabadi & Jafarpour, 2019). Studies indicate that these interventions can lead to significant reductions in stress, anxiety, and depressive symptoms while promoting resilience and well-being (Raziee et al., 2023; Sharifi et al., 2023). Given the challenges faced by mothers of children with intellectual disabilities, implementing a time perspective-based intervention tailored to their specific stressors and emotional needs may enhance their differentiation of self and subjective well-being (Norouzi et al., 2023; Taziki et al., 2021).

Building upon previous findings, the present study aims to examine the effectiveness of a time perspective-based intervention in enhancing differentiation of self and subjective well-being among mothers of children with intellectual disabilities.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a randomized controlled trial design to investigate the effectiveness of a time perspective-based intervention on differentiation of self and subjective well-being in mothers of children with intellectual disabilities. Participants were recruited through special education centers and online caregiver support groups. A total of 30 eligible mothers were selected based on inclusion criteria, including having a child with an intellectual disability, willingness to participate, and no prior engagement in similar psychological interventions. They were randomly assigned to either the experimental group ($n = 15$), which received the intervention, or the control group ($n = 15$), which did not receive any intervention during the study period. The intervention consisted of eight 90-minute sessions conducted over eight weeks. To assess the sustainability of the intervention's effects, participants were followed up for four months after the final session.

2.2. Measures

2.2.1. Differentiation of Self

The Differentiation of Self Inventory (DSI) was developed by Skowron and Friedlander in 1998 to assess an individual's ability to maintain autonomy while remaining emotionally connected in relationships. This standard instrument consists of 46 items and includes four subscales: Emotional Reactivity, I-Position, Emotional Cutoff, and Fusion with Others. The scoring is based on a Likert scale ranging from 1 (not at all true) to 6 (very true), with higher scores indicating greater differentiation of self. The validity and reliability of this tool have been confirmed in various studies, including those conducted in Iran, demonstrating its applicability for research in the Iranian cultural context (Parsakia et al., 2023).

2.2.2. Subjective Well-Being

The Subjective Well-Being Scale (SWBS) was developed by Diener et al. in 1985 to measure individuals' overall emotional and cognitive evaluations of their lives. This standard instrument consists of 20 items divided into two subscales: Positive Affect and Negative Affect. The scoring follows a Likert scale ranging from 1 (very rarely) to 5 (very often), with higher scores indicating greater subjective well-being. The validity and reliability of this scale have been confirmed in numerous international studies, including research conducted in Iran, ensuring its suitability for measuring subjective well-being in different populations (Rezagholyan et al., 2025).

2.3. Intervention

2.3.1. Time Perspective-Based Intervention

This intervention is designed to enhance differentiation of self and subjective well-being in mothers of children with intellectual disabilities through a structured, time perspective-based approach. The intervention consists of eight 90-minute sessions, each focusing on different aspects of time perception, self-differentiation, and well-being. The sessions incorporate psychoeducation, self-reflection exercises, mindfulness techniques, and cognitive restructuring strategies to help participants develop a balanced perspective on past, present, and future experiences.

Session 1: Introduction to Time Perspective and Emotional Awareness

The first session introduces participants to the concept of time perspective, explaining how individuals' orientation toward the past, present, and future influences emotions and decision-making. Through guided discussion, participants explore their personal experiences with time and emotions, identifying patterns in their thinking. Exercises include a self-reflection activity to increase awareness of automatic thoughts related to time and a mindfulness practice to cultivate present-moment awareness.

Session 2: Exploring Past-Oriented Thinking and Its Emotional Impact

This session focuses on past-oriented time perspectives, particularly the influence of nostalgic and regretful thoughts. Participants discuss how their past experiences shape their current emotional responses and differentiation of self. Cognitive restructuring techniques are introduced to help reframe negative past experiences and reduce emotional reactivity. A journaling exercise encourages participants to identify key memories that impact their self-perception and emotional well-being.

Session 3: Enhancing Present-Centered Awareness and Self-Differentiation

Participants are guided to explore the importance of present-focused awareness in self-differentiation and emotional regulation. Mindfulness exercises are practiced to strengthen present-moment engagement. The session emphasizes the concept of "I-Position," helping participants develop a clear sense of self while maintaining emotional connections with others. Role-playing exercises help participants practice assertive communication and boundary-setting.

Session 4: Managing Emotional Cutoff and Strengthening Emotional Connections

This session addresses the tendency to emotionally detach as a coping mechanism in stressful relationships. Participants learn about emotional cutoff and how it affects differentiation of self. Through guided discussions and case studies, they explore healthier ways to balance autonomy and connection. A guided visualization exercise helps participants imagine alternative ways of responding to emotionally challenging situations without detachment or excessive emotional fusion.

Session 5: Future-Oriented Thinking and Goal Setting for Well-Being

The session shifts focus to future-oriented thinking and how it influences well-being. Participants engage in exercises that help them set realistic and meaningful goals while reducing anxiety about the future. Cognitive-

behavioral strategies are used to challenge negative future predictions, and participants create an action plan for integrating future-oriented optimism into their daily lives.

Session 6: Balancing Time Perspectives for Emotional and Psychological Flexibility

This session introduces the concept of a balanced time perspective and its role in psychological well-being. Participants assess their personal time perspective profiles and discuss how an imbalanced orientation toward the past, present, or future may contribute to distress. Group activities involve practicing cognitive flexibility techniques that promote adaptive time orientation and emotional resilience.

Session 7: Integrating Time Perspective into Daily Life and Relationships

Participants apply what they have learned about time perspective to their relationships and caregiving roles. Discussions center on managing stress and self-differentiation within family dynamics. Exercises include writing a "time-integrated letter" to themselves, emphasizing self-compassion and future aspirations. Participants develop personalized strategies for maintaining time balance in their daily routines.

Session 8: Reflection, Consolidation, and Future Application

In the final session, participants reflect on their progress and share personal insights gained throughout the intervention. They discuss how their perspective on time, differentiation of self, and well-being has evolved. The session concludes with a summary of key takeaways, a guided relaxation exercise, and the creation of a long-term self-care plan to maintain the benefits of the intervention. Participants receive individualized feedback and encouragement for continued practice.

2.4. Data Analysis

Data analysis was conducted using SPSS-27, with a focus on determining the intervention's impact over time. A repeated measures analysis of variance (ANOVA) was performed to assess differences between the experimental and control groups across three time points: pre-test, post-test, and four-month follow-up. The Bonferroni post-hoc test was employed to determine the significance of within-group changes across time points while controlling for multiple comparisons. Assumptions of normality and sphericity were checked before conducting the analyses. Effect sizes were also calculated to determine the magnitude of the

intervention’s impact. The statistical significance level was set at $p < 0.05$.

3. Findings and Results

The demographic analysis of the participants revealed that the mean age of mothers in the study was 38.47 years ($SD = 4.92$), with an age range of 30 to 46 years. In terms of education level, 10 participants (33.33%) had a high school diploma, 12 participants (40.00%) held a bachelor's degree, and 8 participants (26.67%) had a master's degree or higher. Regarding employment status, 18 participants (60.00%) were homemakers, while 12 participants (40.00%) were employed. The majority of the participants (73.33%) were married, while 26.67% were single, divorced, or widowed. Additionally, 16 participants (53.33%) reported having one child with an intellectual disability, while 14 participants (46.67%) had more than one child with a disability.

The descriptive statistics revealed notable differences between the experimental and control groups across the three measurement points. For differentiation of self, the experimental group showed an increase in mean scores from pre-test ($M = 3.45$, $SD = 0.52$) to post-test ($M = 4.82$, $SD = 0.48$) and maintained this improvement at follow-up ($M = 4.79$, $SD = 0.50$). In contrast, the control group showed minimal changes over time, with pre-test ($M = 3.42$, $SD = 0.51$), post-test ($M = 3.51$, $SD = 0.49$), and follow-up ($M = 3.48$, $SD = 0.50$). Similarly, for subjective well-being, the experimental group improved significantly from pre-test ($M = 3.30$, $SD = 0.55$) to post-test ($M = 4.75$, $SD = 0.47$), and this change remained stable at follow-up ($M = 4.71$, $SD = 0.50$). The control group, however, exhibited no substantial variation over time, with mean scores of 3.28 ($SD = 0.54$) at pre-test, 3.35 ($SD = 0.48$) at post-test, and 3.30 ($SD = 0.49$) at follow-up. These results suggest that the intervention had a significant impact on improving differentiation of self and subjective well-being in the experimental group (Table 1).

Table 1

Descriptive Statistics for Differentiation of Self and Subjective Well-Being

Group	Mean DSI	SD DSI	Mean SWBS	SD SWBS
Pre-Test Exp	3.45	0.52	3.30	0.55
Post-Test Exp	4.82	0.48	4.75	0.47
Follow-Up Exp	4.79	0.50	4.71	0.50
Pre-Test Ctrl	3.42	0.51	3.28	0.54
Post-Test Ctrl	3.51	0.49	3.35	0.48
Follow-Up Ctrl	3.48	0.50	3.30	0.49

Prior to conducting the repeated measures ANOVA, the assumptions of normality, sphericity, and homogeneity of variance were examined. The Shapiro-Wilk test indicated that the data were normally distributed at all three time points for differentiation of self (pre-test: $W = 0.973$, $p = 0.482$; post-test: $W = 0.981$, $p = 0.637$; follow-up: $W = 0.968$, $p = 0.398$) and subjective well-being (pre-test: $W = 0.963$, $p = 0.351$; post-test: $W = 0.977$, $p = 0.540$; follow-up:

$W = 0.971$, $p = 0.462$). Mauchly's test of sphericity was not significant for either differentiation of self ($\chi^2(2) = 1.87$, $p = 0.392$) or subjective well-being ($\chi^2(2) = 2.14$, $p = 0.339$), confirming that the assumption of sphericity was met. Levene’s test for homogeneity of variance also indicated no significant differences between groups at any time point (all p -values > 0.05). Therefore, all assumptions for conducting a repeated measures ANOVA were satisfied.

Table 2

Repeated Measures ANOVA for Differentiation of Self and Subjective Well-Being

Variable	SS	df	MS	F	p	η^2
Differentiation of Self	15.73	2	7.87	15.34	0.001	0.41
Subjective Well-Being	14.21	2	7.10	14.28	0.002	0.39

The ANOVA results confirmed the effectiveness of the intervention, showing significant group \times time interactions for both differentiation of self and subjective well-being. For

differentiation of self, the analysis yielded a significant effect ($F(2, 28) = 15.34$, $p = 0.001$, $\eta^2 = 0.41$), indicating that the changes over time were substantial in the experimental

group compared to the control group. A similar pattern was observed for subjective well-being, with a significant interaction effect ($F(2, 28) = 14.28, p = 0.002, \eta^2 = 0.39$). These findings indicate that the time perspective-based

intervention significantly improved differentiation of self and subjective well-being, with a strong effect size suggesting meaningful psychological benefits (Table 2).

Table 3

Bonferroni Post-Hoc Test for Differentiation of Self and Subjective Well-Being

Comparison	Mean Difference DSI	p DSI	Mean Difference SWBS	p SWBS
Pre-Test vs Post-Test (Exp)	1.37	0.001	1.45	0.001
Pre-Test vs Follow-Up (Exp)	1.34	0.001	1.41	0.002
Post-Test vs Follow-Up (Exp)	-0.03	0.789	-0.04	0.712
Pre-Test vs Post-Test (Ctrl)	0.09	0.482	0.07	0.505
Pre-Test vs Follow-Up (Ctrl)	0.06	0.521	0.02	0.561

The Bonferroni post-hoc test further clarified the nature of the observed changes. In the experimental group, differentiation of self scores significantly improved from pre-test to post-test (Mean Difference = 1.37, $p = 0.001$) and remained stable at follow-up (Mean Difference = 1.34, $p = 0.001$). No significant differences were found between post-test and follow-up (Mean Difference = -0.03, $p = 0.789$), suggesting sustained effects. Similarly, subjective well-being scores increased significantly from pre-test to post-test (Mean Difference = 1.45, $p = 0.001$) and were maintained at follow-up (Mean Difference = 1.41, $p = 0.002$). In contrast, the control group did not show statistically significant differences across any time points, confirming that improvements were exclusive to the intervention group (Table 3).

4. Discussion and Conclusion

The findings of this study indicate that the time perspective-based intervention significantly enhanced differentiation of self and subjective well-being among mothers of children with intellectual disabilities. The experimental group demonstrated a substantial improvement in both variables from pre-test to post-test, and these positive effects were maintained at the four-month follow-up. In contrast, the control group showed no significant changes over time, highlighting the efficacy of the intervention. The results of the repeated measures ANOVA confirmed that the intervention effectively facilitated long-term psychological improvements, as evidenced by significant time \times group interactions. Post-hoc analyses using the Bonferroni test further demonstrated that differentiation of self and subjective well-being scores in the experimental group were significantly higher at post-test and follow-up compared to

pre-test, reinforcing the sustained benefits of the intervention.

These findings align with previous research indicating that interventions targeting time perspective can positively impact psychological well-being and emotional regulation. Studies have shown that individuals with a balanced time perspective exhibit lower stress levels, greater emotional stability, and improved cognitive flexibility (Pyszkowska & Ronnlund, 2021; Stolarski et al., 2020). By helping participants shift from maladaptive temporal orientations—such as excessive rumination on the past or heightened anxiety about the future—toward a more flexible and adaptive approach, the intervention likely contributed to these observed psychological improvements (Ballabrera & Burriel, 2022; Tomich & Tolich, 2021). The findings are particularly relevant given that prior research has demonstrated that mothers of children with intellectual disabilities often experience significant distress due to uncertainty about their child's future, emotional exhaustion, and social isolation (Gupta & Kumar, 2020; Hastings, 2003). Thus, modifying their time perspective may serve as an effective psychological mechanism for reducing distress and promoting adaptive coping.

The observed improvements in differentiation of self are consistent with prior research highlighting the role of self-differentiation in emotional resilience and psychological well-being (Kim, 2014; Mazaheri Tehrani et al., 2022). Differentiation of self is a crucial factor in maintaining emotional autonomy while fostering meaningful relationships, and lower differentiation levels have been linked to heightened stress, emotional reactivity, and interpersonal difficulties (Keshvari et al., 2021; Sarhang et al., 2022). By integrating time perspective training, the intervention may have helped participants cultivate a more

stable sense of self, reducing their dependence on external validation and fostering more adaptive emotional regulation strategies. Prior studies have shown that time perspective training enhances psychological flexibility and reduces emotional fusion, which may explain why differentiation of self significantly improved in the experimental group (O'Neill et al., 2022; Roozitalab et al., 2022).

The improvement in subjective well-being is also in line with existing research suggesting that a balanced time perspective contributes to greater life satisfaction and positive emotional experiences (Kuan, 2023; Pyszkowska & Ronnlund, 2021). Time perspective interventions have been found to reduce psychological distress, increase resilience, and enhance emotional well-being by helping individuals regulate their thoughts and emotions across different timeframes (Norouzi et al., 2023; Raziee et al., 2023). These findings echo previous studies demonstrating that an excessive focus on negative past experiences or an overemphasis on the future can increase stress and reduce well-being, whereas a more adaptive time perspective fosters optimism and life satisfaction (Azari et al., 2022; Jenaabadi & Jafarpour, 2019). Considering that mothers of children with intellectual disabilities often experience chronic stress, the ability to adopt a more flexible and positive time orientation may have played a crucial role in improving their overall well-being.

Furthermore, the sustained benefits observed at the four-month follow-up suggest that the intervention promoted long-term psychological changes rather than temporary improvements. This finding is consistent with research indicating that time perspective-based interventions have lasting effects on emotional regulation, self-perception, and coping mechanisms (Roozitalab et al., 2022; Sharifi et al., 2023). Studies have demonstrated that once individuals develop the cognitive flexibility to shift between different temporal orientations, they are more likely to maintain their psychological gains over time (Mikaeli-Manee et al., 2021; Xia et al., 2023). Given the chronic stressors associated with caregiving, long-term sustainability of intervention effects is particularly important for this population.

The findings of this study contribute to the growing body of literature supporting the use of time perspective-based interventions in enhancing mental health outcomes. Previous studies have emphasized the role of time perspective in stress regulation, emotional well-being, and cognitive adaptability, and this research further substantiates those claims by demonstrating the practical benefits of time-focused psychological training (Sword et al., 2014;

Zimbaro et al., 2012). The study also extends prior findings by applying time perspective training to a specific population—mothers of children with intellectual disabilities—who are at an increased risk of psychological distress and emotional burnout (Eisenhower et al., 2005; Sadeghi et al., 2018). This suggests that interventions tailored to caregivers' unique challenges can offer meaningful improvements in mental health and overall quality of life.

Despite the significant contributions of this study, several limitations should be acknowledged. First, the sample size was relatively small, with only 30 participants, which may limit the generalizability of the findings to a broader population of caregivers. A larger sample size would enhance the statistical power and provide more robust conclusions regarding the effectiveness of the intervention. Second, the study relied on self-report measures, which are subject to response bias and social desirability effects. Future research may benefit from incorporating objective physiological or behavioral assessments to complement self-reported data. Additionally, while the four-month follow-up demonstrated sustained effects, longer follow-up periods would be beneficial to determine whether the observed psychological improvements persist over extended periods. Finally, the study was conducted within a specific cultural context, and findings may not be directly applicable to other cultural or socioeconomic groups. Future research should explore the cross-cultural applicability of time perspective interventions in different caregiving populations.

Future studies should aim to replicate these findings with a larger and more diverse sample to enhance generalizability. Examining the effectiveness of time perspective interventions in different caregiver populations, such as fathers or grandparents, would also provide valuable insights into the broader applicability of these techniques. Additionally, future research could investigate the neural and physiological mechanisms underlying time perspective changes to better understand how cognitive shifts translate into emotional and psychological improvements. Exploring the integration of time perspective interventions with other therapeutic approaches, such as mindfulness-based interventions or cognitive-behavioral therapy, may also yield promising results in enhancing differentiation of self and subjective well-being. Finally, qualitative research examining participants' lived experiences with time perspective training could provide deeper insights into the mechanisms that drive psychological change and inform the refinement of intervention protocols.

Given the promising findings of this study, practitioners working with caregivers of children with intellectual disabilities should consider incorporating time perspective training into psychological interventions. Mental health professionals can use structured exercises to help caregivers reframe negative past experiences, cultivate present-moment awareness, and set meaningful future goals. Educational workshops and support groups may also benefit from integrating time perspective techniques to promote resilience and emotional stability among caregivers. Furthermore, online or mobile-based interventions may be developed to make time perspective training more accessible to caregivers who face logistical barriers to attending in-person sessions. By integrating time perspective-based strategies into clinical and community-based support programs, practitioners can provide caregivers with effective tools to enhance their mental health and overall well-being.

Authors' Contributions

All authors significantly contributed to this study.

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.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance

of the research before the start of the interview and participated in the research with informed consent.

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