

# The role of long-term psychodynamic psychotherapy in improving attachment patterns, defense styles, and alexithymia in patients with depressive/anxiety disorders

O papel da psicoterapia psicodinâmica de longo prazo na melhora de padrões de apego, estilos de defesa e alexitimia em pacientes com transtornos depressivos e de ansiedade

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## Abstract

**Introduction:** Long-term psychodynamic psychotherapy (LTPP) emphasizes the centrality of intrapsychic and unconscious conflicts and their relation to development. Although there is evidence supporting the efficacy of LTPP in mental disorders, little research has been published on the efficacy of LTPP for depressive and anxiety disorders.

**Objective:** To examine whether patients with anxiety and depressive disorders demonstrate improvement in their attachment styles, defense styles, psychiatric symptoms, anxiety/depressive symptoms, and alexithymia with LTPP.

**Methods:** In this retrospective, descriptive study, the psychological outcomes of patients who were treated at the psychoanalytic clinic of Babol University of Medical Sciences were assessed. Fourteen patients diagnosed with depressive or anxiety disorder participated in the study of LTPP using the self-psychology approach. The Beck Depression Inventory II, Beck Anxiety Inventory, Adult Attachment Scale, 40-item Defense Style Questionnaire, and the 20-item Toronto Alexithymia Scale were administered at pre-treatment, post-treatment, and 6-month follow-up. Generalized estimating equations were used to analyze changes in psychological outcomes after each of the three assessments.

**Results:** The mean scores of depression and anxiety and secure attachment improved significantly after LTPP with self-psychology approach from baseline to post-treatment and follow-up. Also, the mean scores of neurotic and immature defenses, difficulty in identifying feelings, difficulty in describing feelings, externally oriented thinking, and total alexithymia scores decreased significantly from baseline to post-treatment and follow-up.

**Conclusion:** Symptoms of anxiety disorders, depressive disorders, insecure attachment styles, alexithymia, and neurotic/immature defense styles improved after the LTPP with self-psychology approach. Moreover, the improvements persisted at the 6-month follow-up.

**Keywords:** Long-term psychodynamic psychotherapy, self-psychology, depression, anxiety, attachment, defense styles, alexithymia.

## Resumo

**Introdução:** A psicoterapia psicodinâmica de longo prazo (PPLP) enfatiza a centralidade dos conflitos intrapsíquicos e inconscientes e sua relação com o desenvolvimento. Apesar da evidência em favor da eficácia da PPLP em transtornos mentais, há poucos dados sobre a eficácia da PPLP em transtornos de depressão/ansiedade.

**Objetivo:** Examinar se pacientes com transtornos de depressão/ansiedade demonstram melhora em seus estilos de apego, estilos defensivos, sintomas psiquiátricos, sintomas de ansiedade/depressão e alexitimia com PPLP.

**Métodos:** Neste estudo retrospectivo, descritivo, os desfechos psicológicos de pacientes tratados na clínica psicanalítica da Babol University of Medical Sciences foram avaliados. Quatorze pacientes com diagnóstico de transtorno de depressão ou ansiedade participaram do estudo sobre PPLP com abordagem de psicologia do *self*. O Inventário de Depressão de Beck II, o Inventário de Ansiedade de Beck, a Escala de Apego do Adulto, o Questionário de Estilo de Defesa-40 e a Escala de Alexitimia de Toronto-20 foram administrados antes e após o tratamento e no seguimento de 6 meses. Equações de estimação generalizadas foram usadas para analisar mudanças nos desfechos psicológicos após cada avaliação.

**Resultados:** Os escores médios de depressão/ansiedade e apego seguro melhoraram significativamente após PPLP com abordagem de psicologia do *self* do início do estudo ao pós-tratamento e seguimento. Além disso, os escores médios de defesas neuróticas e imaturas, dificuldade em identificar sentimentos, dificuldade em descrever sentimentos, pensamentos orientados externamente e escores totais de alexitimia diminuíram significativamente do início do estudo ao pós-tratamento e seguimento.

**Conclusão:** Sintomas de transtornos de ansiedade, transtornos depressivos, estilos de apego inseguro, alexitimia e estilos de defesa neuróticos/imaturos melhoraram após PPLP com abordagem de psicologia do *self*. Além disso, as melhoras persistiram no seguimento de 6 meses.

**Descritores:** Psicoterapia psicodinâmica de longo prazo, psicologia do *self*, depressão, ansiedade, apego, estilos de defesa, alexitimia.

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## Introduction

Anxiety and depression are prevalent and highly comorbid psychiatric conditions worldwide, and their treatments are the most frequently researched among mental disorders.<sup>1,2</sup> Long-term psychodynamic psychotherapy (LTPP), a widely practiced method, is defined as "a therapy that involves careful attention to the therapist-patient interaction, with thoughtfully timed interpretations of transference and resistance embedded in a sophisticated appreciation of the therapist's contribution to the two-person field."<sup>3</sup> Although a considerable amount of empirical evidence supports the efficacy and effectiveness of short-term psychodynamic psychotherapy for psychiatric disorders,<sup>4</sup> few research studies have reported on the efficacy of LTPP, especially for depressive and anxiety disorders. Several meta-analyses have focused on treatment efficacy. One meta-analytic study, which compared LTPP with short-term therapies for the treatment of complex mental disorders (defined as multiple or chronic mental disorders, or personality disorders), yielded an effect size of 1.8.<sup>5</sup> Another meta-analysis examined the effectiveness of LTPP for patients with mixed/moderate pathology; the pretreatment to post-treatment effect was 0.78 for general symptom improvement, which increased to 0.94 at long-term follow-up, an average of 3.2 years post-treatment.<sup>6</sup> A study found that LTPP helped patients modify their involvement in situations that were sources of suffering by teaching them to attend to their feelings differently, and by facilitating their development of a complex sense of self.<sup>7</sup>

Attachment theory is considered one of the most useful psychodynamic theories for understanding the psychopathology of adult depressive and anxiety disorders. According to the attachment theory developed by Bowlby (1969), human beings are born with an attachment behavioral system that motivates them to seek proximity to significant others (attachment figures) in times of need. When attachment figures are not reliably available and supportive, however, a sense of security is not attained, and serious doubts about one's self-efficacy and others' intentions develop. Attachment figures stored in the memory as mental representations of attachment figures allow a person to predict future interactions in other significant relationships.<sup>8</sup> According to attachment theory, depression and anxiety result from the lack of a secure base, that is, the lack of an attachment figure whom the child can trust to be available in times of trouble. Insecure attachment patterns in adults have, in fact, been increasingly shown to predict depression and anxiety.<sup>9</sup>

Different styles of attachment have been investigated in relation to psychopathology. Insecure styles are measured along two dimensions: anxious

and avoidant.<sup>10</sup> The anxious attachment style is characterized by a poor estimation of self-worth, an extreme need for interpersonal closeness, love and support, and worry about being rejected or abandoned. Avoidant attachment style is defined as discomfort with closeness and a reluctance to trust others.<sup>11,12</sup> Research-based evidence supports the role of adult attachment in relation to recurrent depression. Anxious attachment has been found to be significantly related to long-term depression.<sup>12</sup> Patients with anxious attachment styles report more episodes of depression compared to those with secure attachment style. In one study, adding attachment insecurity to a psychosocial vulnerability model of depression was important in understanding and identifying its risk factors.<sup>13</sup> An insecure attachment pattern is assumed to originate in adverse relationships with parents during childhood, which create distorted "internal working models" that stabilize in adulthood and account for negative views of both the self and others.<sup>10,14</sup> Insecure attachment has also been linked with stress models, as it is associated with less effective coping, leading to failures in stress reduction and affect regulation.<sup>15</sup> Secure individuals, in contrast, display their emotions in appropriate ways and share their negative experiences openly with significant others to reduce the extent to which events are perceived as overwhelming or uncontrollable.<sup>16,17</sup>

There is some evidence that the development of defense mechanisms is affected by attachment theory.<sup>18,19</sup> This theory postulates that the attachment behavioral system operates unconsciously and that, with repeated use, it can become automatic and sometimes function out of a person's awareness through the use of defense mechanisms.<sup>5</sup> Defined as automatic self-regulating processes, defense mechanisms reduce cognitive discrepancies and minimize sudden changes in external and internal reality by distorting one's perception of threatening events. Three categories (mature, neurotic, and immature) of defenses based on 20 defense mechanisms were suggested by Vaillant.<sup>20</sup> Mature defenses represent normal and adaptive methods of coping, whereas immature and neurotic defenses are dysfunctional and maladaptive coping strategies. The ways in which people cope with stressful events are influenced by their defense styles.<sup>21</sup> Defense mechanisms are associated with physical and psychological consequences.<sup>22</sup> Maladaptive defense mechanisms have been found to be associated with impairments in the recognition and expression of affect.<sup>23</sup> Also, the quality of attachment is only one of many possible influences in the development of defensive patterns. Because attachment theory has an important role in affect regulation, people with insecure

attachment may have no skills in affect regulation, therefore using more neurotic and immature defenses.<sup>17</sup> Also, studies linking exposure to losses or other trauma, such as sexual abuse in childhood and adolescence, may often develop avoidant attachment.<sup>24</sup>

Finally, alexithymia is characterized by a deficit in the ability to recognize and express emotions, the use of concrete (as opposed to abstract) speech and thinking related to external events, and a paucity of fantasy life. Alexithymia has four characteristics: difficulty distinguishing emotions, difficulty describing feelings, constricted imagination, and a concrete cognitive style. Research findings support the role of alexithymia in the emergence of psychological symptoms,<sup>25,26</sup> as well as the relationship between alexithymia and attachment styles. Childhood experiences with caregivers who do not express their emotions and use ineffective strategies to respond to children's negative emotions have a large (negative) effect on the child's emotional regulation in adulthood. The ability to recognize, describe, and regulate emotions is related to a child's relationships with attachment figures. Evidence suggests that alexithymic features are more common among those with insecure attachment styles. Individuals with poor maternal-care experiences have been found to have alexithymic characteristics, especially difficulty expressing emotions. Children who grow up in emotionally and physically insecure environments, which prevent them from expressing their emotions, do not learn effective skills to cope with their emotions, and consequently, feel discomfort when they do experience emotions.<sup>27</sup>

Little research is available regarding the role of LTPP in changing the use of defense mechanisms.<sup>28</sup> To our knowledge, no study has been published on improvement of attachment style and alexithymia in patients with depression/anxiety. In the present study, we examined whether patients with anxiety and depressive disorders demonstrate improvement in their attachment styles, defense styles, psychiatric symptoms, anxiety/depression symptoms, and alexithymia with LTPP.

## Materials and methods

### Participants

This retrospective, descriptive, cross-sectional study was conducted over a 4-year period at the psychoanalytic clinic of the Rohani Teaching Hospital, Babol University of Medical Sciences, in northern Iran. The clinic was supervised by a psychologist, and all case notes pertaining to psychoanalytic patients between 2012 and 2016 were evaluated to determine the patients' participation in the study. The inclusion criteria were: 1)

a diagnosis of an anxiety or depressive disorder according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR), with/without concomitant medication and with/without a concomitant Axis II disorder (personality disorder); 2) a minimum of 1 year of LTPP; 3) an expressed desire for LTPP; and 4) agreement to participate in the study. Patients were excluded if they had: 1) a psychotic disorder; 2) a substance-related disorder; or 3) a severe organic brain disorder. Those who had received other psychotherapies during LTPP also were excluded. LTPP was defined as long-term psychotherapy, i.e., lasting for more than 1 year. The mean age of the participants was 34.36 years (standard deviation [SD] = 8.59, range = 28-57). The mean length of the LTPP was 26.29 months (SD = 15.44, range=12-48).

The study protocol was reviewed and approved by a psychiatric team at the psychiatric department of Babol University of Medical Sciences. All patients who agreed to participate provided written informed consent.

### Procedures

An experienced psychologist conducted face-to-face interviews with participants using the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) to diagnose anxiety and depressive disorders.<sup>28</sup> According to the DSM-IV-TR, depressive disorders were classified as major depressive disorder (MDD), dysthymic disorder (DD), and depressive disorder not otherwise specified (DDNOS); anxiety disorders were classified as panic disorder, phobia, obsessive-compulsive disorder (OCD), generalized anxiety disorder (GAD), and anxiety disorder not otherwise specified (ADNOS).<sup>29</sup> Fourteen participants who completed the therapy, according to the clinic's psychoanalytic therapist, participated in the study; eight had a diagnosis of depressive disorders, and six of anxiety disorders.

At the beginning of treatment, all participants were asked to complete the Beck Depression Inventory – II (BDI-II), the Beck Anxiety Inventory (BAI), the Adult Attachment Scale (AAS), the 40-item Defense Style Questionnaire (DSQ-40), and the 20-item Toronto Alexithymia Scale (TAS-20). Evaluations of patients' symptoms using the five questionnaires were performed by a single rater (experienced psychologist who had ability to evaluate the questionnaires) who was blinded to the treatment status of the participants at the three assessment time points, i.e., whether they were at the beginning of treatment (baseline), post-treatment (end of psychotherapy), or follow-up stage (6 months post-treatment). The instruments were applied individually to patients at the clinic, at the beginning of treatment, immediately after treatment,

and at the follow-up stage. The follow-up assessment was scheduled to be carried out 6 months after the end of psychotherapy. Ten patients returned to the clinic to complete the questionnaires 6 months after the end of treatment; the remaining four completed the questionnaires about seven months after the end of psychotherapy.

### **Therapy**

LTPP is an open-ended, transference-based therapeutic approach, which helps patients by exploring and working through a broad area of intrapsychic and interpersonal conflicts. A female psychotherapist who was trained in psychoanalysis and self-psychology at the Psychoanalytic Institute in Tehran, with 8 years of experience in psychotherapy and 6 years of experience conducting psychotherapy from a self-psychology perspective, conducted all psychotherapy sessions with the study participants. All interventions were monitored by the second author (supervisor) through 50-minute consultation sessions on a weekly basis. The LTPP sessions were scheduled to be held once or twice per week. The psychoanalyst's LTPP approach was derived from the work of Heinz Kohut (1977), who formulated an additional theory of the self: its development, possible distortions, and treatment. Kohut emphasized the natural inclination to idealize persons and objects in the environment, and the implications for adult psychopathology when one grows up without objects that can be initially idealized and then, gradually and non-traumatically, de-idealized. Kohut's body of work added to analytic theory, the language of the self, and encouraged evaluators to understand the dimension of self-experiences in people. Self-psychologists began observing that even in patients who were not considered narcissistic, one could see the operation of processes oriented toward supporting self-esteem, self-cohesion, and a sense of self-continuity.<sup>30</sup> Defenses were re-conceptualized as existing not only to protect a person from anxiety related to id, ego, and superego dangers, but also to sustain a consistent, positively valued sense of self.<sup>31</sup>

### **Instruments**

#### *Beck Depression Inventory – Second Edition (BDI-II)*

The BDI-II is a 21-item self-report questionnaire designed to assess depressive symptomatology. It is one of the most common measures of depression utilized in a variety of inpatient and outpatient settings, and many studies have supported its reliability and validity.<sup>32,33</sup> We used the validated Persian version of the BDI-II in this study.<sup>34</sup>

#### *Beck Anxiety Inventory (BAI)*

This 21-item self-report questionnaire was designed to distinguish anxiety symptoms from depressive symptoms. For each item, respondents rate the severity of symptoms experienced during the past week on a 4-point scale ranging from 0 (not at all) to 3 (severely).<sup>35</sup> The BAI has demonstrated high internal reliability and good factorial and discriminant validity.<sup>36</sup> We used the validated Persian version of the BAI in this study.<sup>37</sup>

#### *Adult Attachment Scale (AAS)*

This instrument, which was developed by Hazan & Shaver, has a categorical and a dimensional component.<sup>10</sup> Participants choose one of three descriptions of attachment styles (secure, avoidant, or anxious-ambivalent) that best describes the way they feel in relationships. It is rated on a 9-point Likert scale. Although the AAS has some psychometric limitations, such as its restricted range and categorical focus, it remains one of the few attachment measures to have been translated and used successfully with an Iranian population.<sup>38</sup>

#### *40-item Defense Style Questionnaire (DSQ-40)*

Defense styles were assessed using the DSQ-40, which is a valid instrument for the assessment of ego defenses and changes in the use of these mechanisms after psychotherapy.<sup>39</sup> The DSQ-40 consists of 40 items that yield scores for 20 individual defense mechanisms (2 items for each) and three higher-order factor scores (mature, neurotic, and immature). Each item is rated on a 9-point Likert scale ranging from 1 (strongly disagree) to 9 (strongly agree). We used the validated Persian version of the DSQ-40 in this study.<sup>38</sup>

#### *Toronto Alexithymia Scale (TAS-20)*

Alexithymia was evaluated using the 20-item TAS-20. This questionnaire consists of three subscales that measure difficulty identifying feelings (7 items), difficulty describing feelings (5 items), and externally oriented thinking (8 items). The items are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with some items reverse scored. The validated Persian version of the instrument was used in this study.<sup>40</sup>

### **Data analysis**

The general linear model was used to evaluate differences between the psychological outcomes (anxiety, depression, attachment, and defense styles) at baseline, post-treatment, and at 6 months. Generalized estimating equations (GEE) were used to analyze the scores for the 12 psychological outcomes

(anxiety, depression, secure attachment, anxious attachment, avoidant attachment, mature defense style, neurotic defense style, immature defense style, difficulty describing feelings, difficulty identifying feelings, externally oriented thinking, and overall score for alexithymia) as dependent variables. Time was established as a fixed factor. If a GEE showed that tests of within-subjects effects were significant, Bonferroni tests were conducted to explore pairwise comparisons at each time of administration. We used the Statistical Package for the Social Sciences (SPSS) version 18.0. for data analysis. A value of  $p < 0.05$  was considered significant.

## Results

Table 1 shows the characteristics of the study sample. Table 2 summarizes the trends in terms of changes in the

**Table 1** - Characteristics of the patients

Characteristic	n (%)
Gender	
Women	9 (64.3)
Men	5 (35.7)
Age (years), mean $\pm$ SD	34.36 $\pm$ 8.59
20-30	7 (50)
31-40	5 (35.7)
41-50	2 (14.3)
Education	
Primary/high school	6 (42.9)
University	8 (57.1)
Marital status	
Married	9 (64.3)
Single/divorced	5 (35.7)
Duration of therapy (years)	
1-2	3 (21.4)
2-3	6 (42.9)
3-4	5 (35.7)
Psychiatric diagnosis	
Depression	
Major depressive disorder	5 (35.7)
Dysthymia	1 (7.1)
Not otherwise specified	2 (14.3)
Anxiety	
Panic disorder	2 (14.3)
Generalized anxiety disorder	2 (14.3)
Anxiety not otherwise specified	2 (14.3)

SD = standard deviation.

mean scores obtained for the psychological outcomes over the trial period. The mean scores of the measures of depression and anxiety significantly decreased from baseline to post-treatment and follow-up with the LTPP self-psychology approach. The mean score for anxiety decreased significantly from baseline to post-treatment and 6 months after treatment ( $p < 0.001$ ). The mean score for secure attachment increased significantly from baseline to post-treatment and follow-up ( $p < 0.001$ ); and for both neurotic and immature defense styles, the mean scores decreased from baseline to post-treatment and follow-up ( $p < 0.001$ ). The mean scores for difficulty identifying feelings, difficulty describing feelings, externally oriented thinking, and the total score for alexithymia decreased significantly from baseline to post-treatment and follow-up ( $p < 0.001$ ).

## Discussion

The results of this study showed improvements in both depressive and anxiety symptoms and disorders by the end of LTPP treatment, and these changes persisted at the 6-month follow-up assessment.

There is evidence that the effect of psychodynamic therapy increases over time. The consistent trend toward larger effect sizes at follow-up suggests that psychodynamic therapy sets in motion psychological processes that lead to ongoing changes, even after therapy has ended.<sup>41</sup> A study was conducted with 326 psychiatric outpatients with mood or anxiety disorders who were randomly assigned to solution-focused therapy, short-term psychodynamic psychotherapy, and LTPP, with repeated assessments over the course of 5 years. While the short-term therapies were more effective than LTPP during the first year, the latter was more effective at the 3-year follow-up.<sup>42</sup> These results suggest that adding psychodynamic therapy to antidepressants might benefit depressed patients.<sup>43</sup>

The present study's results indicate that LTPP was associated with improvements of insecure attachment style among patients with depressive/anxiety disorder at post-treatment and 6-month follow-up. Among an outpatient sample of children, changes in attachment style were found following LTPP. In that study, the proportion of children and adolescents with a secure attachment style increased from 23 to 63%.<sup>44</sup> Another study examined changes in attachment style, as measured by the Relationship Scales Questionnaire, before and after 6 weeks of intensive group psychotherapy. The findings suggested that intensive group psychotherapy programs show promise for reducing attachment pathology and improving interpersonal functioning.<sup>45</sup>

Our data also support the conclusion that LTPP was associated with improvements of maladaptive defense styles at post-treatment and 6-month follow-up. A previous study examined whether patients with chronic and recurrent anxiety and depressive disorders and/or a personality disorder showed improvement in their defense styles following LTPP. The conclusion was that the patients' defense styles became more adaptive and their symptoms improved over time.<sup>46</sup>

In our study, the scores on alexithymia improved by the end of the LTPP treatment, and these changes persisted at 6-month follow-up. Although studies have reported effects of short-term psychodynamic psychotherapy on alexithymia,<sup>47</sup> there has been little research on the role of LTPP in improving alexithymia. To date, no studies have reported effects of LTPP on alexithymia in patients with depressive/anxiety disorders. A study in which inpatients were evaluated during multimodal psychodynamic treatment found that their symptom severity and alexithymia decreased, which is significant given the high relative stability of alexithymia.<sup>48</sup>

The mechanism behind the significant role of LTPP in improving anxiety/depression symptoms, attachment style, defense style, and alexithymia, is not clear. However, we propose two hypotheses to

explain this role of LTPP, based on the nature of the therapy. First, the corresponding processes between the treatment method and the nature of the disease may have contributed to the large role of psychotherapy. Physical symptoms in depression/anxiety disorders can be conceived as an (unconscious) attempt to master a conflict, such as narcissistic reparation, as an adaptation effort, or even as self-destruction. A central tenet of the psychodynamic approach to inner conflicts and defenses is that unacceptable or unmanageable thoughts, feelings, and motivational impulses (even though actively suppressed or repressed) can remain active in the unconscious, and resurface in experiences and actions.<sup>49,50</sup> Self-psychology LTPP focuses on responsiveness to needs by a psychoanalyst who has devoted his/her life to helping others, with the aid of insight obtained via empathic immersion into his/her own inner life.<sup>30</sup> This approach is focused on the self and one's emotions. Emotional changes, increased awareness of unconscious processes, and improved emotional experiences are possible (perhaps, probable) treatment outcomes that promote the effectiveness of LTPP. Thus, it seems that a release from inner conflicts improved the regulation of emotional affect and might have had healing effects in functional dysphoria. Another key aspect of LTPP involves helping patients

**Table 2** - Effectiveness of long-term psychodynamic psychotherapy in changing psychological outcomes according to generalized estimating equation methods\* from pre-treatment to post-treatment and follow-up

Outcome variable	Pre-test	Post-treatment	Follow-up	p
Depression	33.07±12.50	8±4.28	8.07±3.73	<0.001
Anxiety	41.00±8.04	23.71±2.61	24.43±4.34	<0.001
Attachment style				
Secure	2.71±1.89	6.43±1.74	6.64±1.59	<0.001
Anxious (ambivalence)	7.93±1.59	2.93±1.27	2.71±1.32	<0.001
Avoidant	5.50±2.37	3.29±1.59	3.00±1.71	<0.001
DSQ-40				
Mature	28.14±6.46	38.5±7.87	37.5±5.97	<0.001
Neurotic	45.64±8.31	22.71±7.27	21.21±7.21	<0.001
Immature	129.43±18.03	73.64±22.50	71.43±21.89	<0.001
TAS-20				
Difficulty describing feelings	22.00±1.41	10.71±2.33	10.93±1.94	<0.001
Difficulty identifying feelings	30.14±3.35	14.79±2.29	15.64±2.70	<0.001
Externally oriented thinking	29.21±3.21	18.21±3.09	18.21±3.42	<0.001
Total scores	81.36±5.42	43.71±5.86	44.79±5.59	<0.001

Data presented as mean ± standard deviation, unless otherwise specified.

Range of scores: depression 0-63, anxiety 0-63, secure attachment 1-9, anxious attachment 1-9, avoidant attachment 1-9, mature defenses 1-72, neurotic defenses 1-72, immature defenses 1-216, difficulty describing feelings 1-25, difficulty identifying feelings 1-35, externally oriented thinking 1-40, total TAS-20 scores 1-100.

Within-subjects, with statistical significance at each phase of administration, i.e., baseline vs. post-treatment and follow-up.

recognize how inner conflicts and interpersonal sensitivities might exacerbate their anxiety/depressive symptoms. This linking process may have served as an important therapeutic mechanism. Second, we believe that attachment theory may help explain the significant results found in this study. We assume that the change in the participants' attachment style (from insecure to secure) was due to the mediating role of LTPP treatment in patients with depressive/anxiety disorders. A previous study found that defense mechanisms played a mediating role between attachment style and alexithymia.<sup>26</sup> We suggest that the improvement in insecure attachment was a bridge to the improvement of defense styles, as well as alexithymia and anxiety/depression symptoms. Further research, such as a clinical randomized trial study, should be conducted to confirm our hypothesis.

### Limitations

Several study limitations warrant caution against generalizing our study's results. First, some patients received medications in addition to LTPP. Second, life events of the patients outside the study setting and baseline depression scores might have influenced the outcomes.<sup>51</sup> Third, without a comparison group, causal mechanisms of the changes found in this study cannot be determined. In future studies, it would be beneficial to add a control group. Also, further research should explore whether other LTPP approaches produce similar effects. Fourth, alexithymia and defense styles were assessed using self-report measures. Fifth, the research sample included only participants between 20 and 56 years old. Therefore, considering the small sample size, the lack of a control group, and the lack of control of other significant variables (e.g., use of medication), the improvement observed cannot be claimed to be attributed solely to the intervention.

### Conclusion

LTPP with self-psychology approach was associated with improvements of anxiety/depression symptoms, insecure attachment style, alexithymia, and neurotic/immature defense styles in patients diagnosed with anxiety or depressive disorders.

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