



Research paper

The Effectiveness of Phototherapy on Depression and Anxiety in Divorced Women (Case Study)

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Abstract

The study was aimed to determine the effectiveness of phototherapy on depression and anxiety in divorced women. The design was single-case experimental with multiple baseline phases. The statistical population included all divorced women in Tehran who were active on Instagram. The sampling method was convenience and purposive. Four participants were selected based on inclusion criteria. The research instruments included the Depression, Anxiety and Stress Scale and the five main phototherapy techniques by Weiser. Participants took part in multiple baseline stage, five intervention sessions and three follow-up sessions. Data were analyzed by visuals inspection, improvement percentage, reliable change index strategies, effect size and mixed regression analysis. The results showed that phototherapy has significant effect on reducing depression and anxiety in divorced women. Therefore, phototherapy can be utilized as a novel and effective intervention method for addressing depression and anxiety in divorced women, by therapists and counselors.

Keywords: Anxiety, depression, divorced woman, phototherapy.

Introduction

Divorce has increased the risk of mental health problems, depression and anxiety in women, the effects of which will remain on their body and mind for years to come (Hald et al., 2020). Phototherapy is a new type of supportive intervention aimed to promote wellbeing by facilitating people's adjustments to stressful events and relieving psychological pain (Testoni et al., 2020). Today, with the enjoyable and accessible methods of photography, photographs have the potential to express a wide range of life experiences from the perspective of people who are exposed to mental health problems (Milasan et al., 2022), which can justify the use of phototherapy in exploring mental experiences related to psychological stress in women who are post-divorce is less likely to express their emotions or thoughts and they tend to be more passive and isolated. The goal of phototherapy is to increase the client's self-expression and get a new understanding of himself by providing a path to the unconscious (Saita et al., 2019). Despite the lack of similar research in the population of divorced women, a number of studies have shown that phototherapy reduces anxiety and depression in a number of similar populations. Therefore, according to the possible consequences after divorce for women and

the need to prevent and treat these effects, as well as to fill the research gap in the field of phototherapy in Iran, the present study examines these hypotheses that phototherapy is an effective intervention on the level of depression and anxiety in divorced women.

Method

The research plan was single case empirical plan multiple baselines. The statistical population of the research includes all the divorced women of Tehran who were active in the Instagram social network in the fourth and fifth months of 2021 and responded to the invitation to participate in the research. The sampling method was convenience and purposeful. The sample size was 5 people. Phototherapy was conducted in 5 sessions (four hours) based on Weiser's approach at Sense of Life Counseling Center, and the participants participated in several baseline stages, five treatment intervention sessions, and three follow-up sessions. In this way, the first person enters the treatment stage after three measurements through the questionnaire in the baseline and after that, the second person entered the intervention phase after four baseline measurement sessions, the third person after five baseline measurement sessions, and the fourth person after six baseline measurement sessions. Participants to all questionnaires while undergoing treatment; in sessions 2, 3, 4, 5 to measure the amount of change and after treatment; They responded three times for follow-up at a three-week interval. All the photos were taken with a mobile camera and prepared as printed images before the meetings. In order to prevent dropout, the participants were contacted weekly and offered up to 5 free individual counseling sessions after the complete completion of the research process. Data analysis was conducted using visual depiction, Reliable Change Index (RCI), recovery percent, effect size determination and mixed regression analysis.

Depression, anxiety and stress scale: This scale was prepared by Lovibond and Lovibond (1995), which includes 42 items. In the study of Baniasadi, et al., (2021), Cronbach's alpha calculated for depression was 0.82, anxiety was 0.84 and stress was 0.87. In the current study, Intraclass Correlation Coefficient of depression and anxiety questionnaires was obtained as 0.981 and 0.980, respectively.

Results

The trends of changes in depression and anxiety scores of the participants in the baseline, intervention and follow-up stages were downward compared to the baseline. Reliable change index is statistically significant. Effect Size Indicates the effectiveness of phototherapy in reducing depression and anxiety. The high level of the recovery percentage of the participants at the end of the intervention session and the follow-up period shows the significance of the recovery in the follow-up phase. The effect size was measured using Jacob Cohen's studies. The effect size of both research variables was high and anxiety has a larger effect size than depression. The overall recovery rate increased during the follow-up period; However only in the anxiety variable in the intervention phase, this improvement rate was clinically significant. The participants' depression and anxiety at the end of the treatment were significantly reduced compared to the baseline.

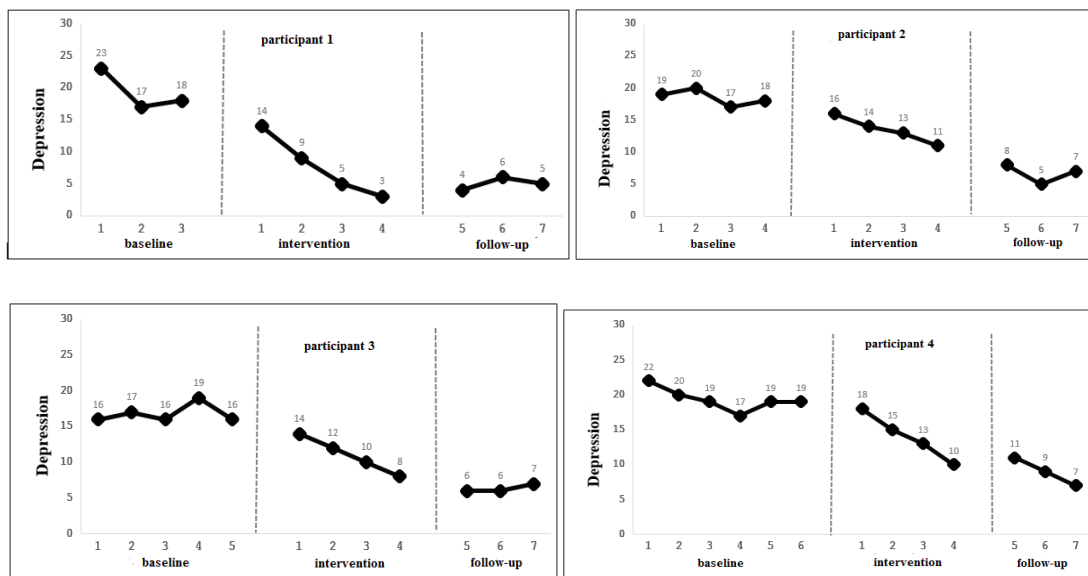


Figure 1. Changes in participants' depression scores at baseline, intervention, and follow-up

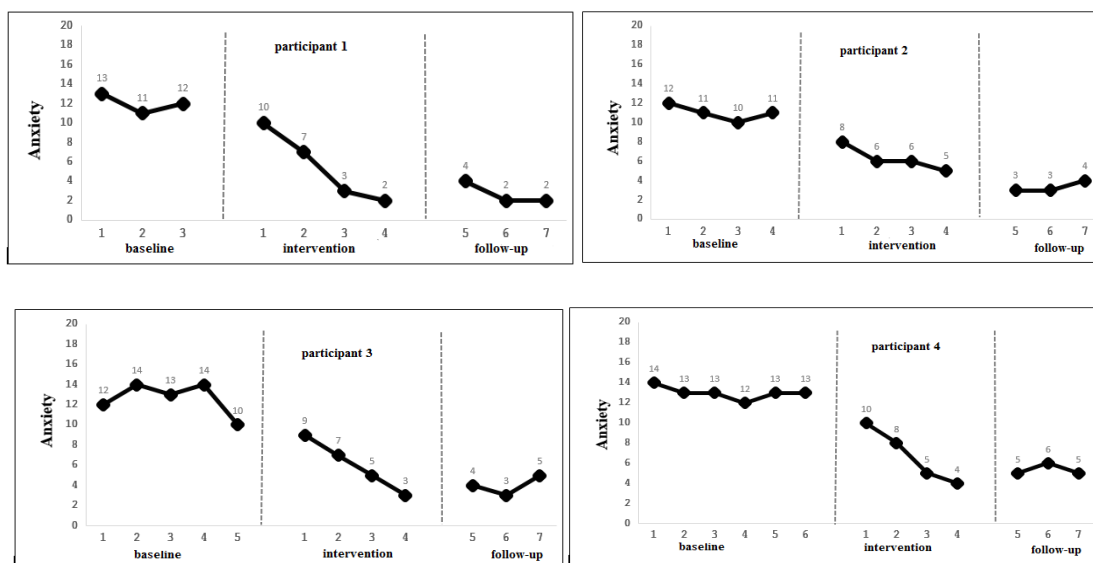


Figure 2. Changes in participants' anxiety scores at baseline, intervention and follow-up

The process of changing grades in the intervention line is significant for both variables, but it is not significant in the baseline; therefore, phototherapy reduces depression and anxiety in divorced women over time and in the short term.

Discussion and Conclusion

The results showed the effectiveness of phototherapy on depression and anxiety of divorced women. The use of phototherapy enables faster access to cognitive filters and psychological defenses and leads to easier access to the unconscious and greater self-awareness and identification of repressed thoughts and feelings. Since depressed people limit their world through believing negative thoughts, reducing activities and interests, and eliminating new experiences and communication, phototherapy techniques provide the possibility of correcting depressing thoughts and cognitive deviations in a more mature way. Since anxiety is a negative mood state in response to an uncertain future situation that people are unable to predict or

control in the present, working with family photos is a suitable tool for treating anxious people, where photos can serve as a visual stimulus for reminiscence of memories or experiences that are out of the client's awareness at the present time are used. One of the limitations of the study was the presence of the Corona pandemic at the time of the research, which caused compression of the intervention sessions, which can affect the evaluation of the sessions. It is suggested that family counselors use phototherapy techniques along with other approaches, especially when clients have high resistance.

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Conflict of Interests

The authors declared no conflict of interest.



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