

## Research Paper

# The Effect of Acupressure at P6 Point on Anxiety and Depression in Hemodialysis Patients



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## ABSTRACT

**Objective** Anxiety and depression are the most common psychological problems and effective on treatment process in hemodialysis patients. Acupressure is inexpensive, effective, and available method for reducing anxiety and depression. Therefore, this study was conducted to determine the effect of acupressure on anxiety and depression in hemodialysis patients.

**Methods** This study was a clinical trial, conducted on 40 patient's referral to Imam Khomeini medical center in Zabul at 2017. Patient-based census method selected and randomly divided in two groups (intervention group: 20, control group: 20). For data collection we used demographic, Spielberger Anxiety and Beck Depression Questionnaire. The intervention group received acupressure in p6 point in three days a week for four weeks. Data were collected before and one month after the intervention then data analyzed by SPSS V. 16 with paired t-test and independent statistical test.

**Results** The Mean±SD of depression and anxiety score after intervention were 25.45±5.67 and 37.15±5.13, respectively. Also the Mean±SD of anxiety scores in the experimental and control groups after intervention were 38.2±4.26 and 50.6±7.42, respectively. Evaluation of depression and anxiety scores after intervention showed a significant difference (P<0.05).

**Conclusion** The results of this study indicated that acupressure is effective in reducing anxiety and depression in patients. Therefore, it is recommended as a simple, inexpensive, and workable method by the patient himself.

## Extended Abstract

### 1. Introduction

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nxiety and depression are among the most important psychological complications in patients undergoing hemodialysis. The

prevalence of depression is between 20 to 30 and in some studies up to 88% and the prevalence of anxiety in hemodialysis patients is between 42.3 to 92.5% [7, 10-12]. Acupressure is a non-invasive method for boosting the level of the immune system and also psychologically in patients stimulating alpha waves in the brain and causing relaxation and reducing anxiety and depression [9, 19]. Due to the discrepancy in the findings of other studies on the effect

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or non-effect of acupressure on anxiety and depression in patients [20-22] and the limitations of studies in patients undergoing hemodialysis and given that acupressure is a The method was easy, cheap and fast, the aim of this study was to determine the effect of acupressure on anxiety and depression in patients undergoing hemodialysis.

## 2. Materials and Methods

This study is a randomized clinical trial. The sample size required in this study was 40 people. The instruments of this study included demographic information questionnaire, Spielberger anxiety questionnaire, and Beck depression questionnaire. Questionnaires were filled out by research units before the intervention. In the intervention group, acupressure in the form of pressure in the amount of 3 to 4 kg, for eight minutes with the thumb (three minutes at each point and two minutes of rest) in a circular motion and two cycles per second, one hour after the start of dialysis, was performed three days a week for four weeks. After the intervention (after the end of four weeks), the questionnaires were completed again by the patients. For patients in the control group, routine interventions were performed as before. Data were described using descriptive statistics (central indices, dispersion, frequency and percentage) and inferential statistics (independent and paired t-test). To compare the anxiety and depression scores between the two groups, before and after the study, t-test was used and to compare the anxiety and depression of patients in each group, before and after the intervention, paired t-test was used.

## 3. Results

The two groups were homogeneous in terms of demographic information. Evaluation of statistical data before and after the intervention in the intervention and control groups after acupressure showed a statistically significant difference in reducing depression and anxiety based on independent t-test ( $P < 0.5$ ). Also, comparison of data before and after the intervention in the intervention and control groups based on paired T-test showed a statistically significant difference between anxiety and depression scores before and after the intervention in the intervention group ( $P < 0.5$ ) and this difference in The control group was not significant (Table 1 & 2).

## 4. Discussion

The results of the present study showed that acupressure at point p6 have a positive effect on reducing anxiety and depression in patients undergoing hemodialysis. In fact, acupressure is an easy, cheap and simple method and no side effects have been reported for it and it can be easily performed by nurses. It can even be entrusted to patients by teaching it to patients [32].

Various studies have examined the positive effects of acupressure, including the results of a study by Moradi et al., Which evaluated acupressure to reduce anxiety in nulliparous women; Acupressure at p6 reduces the level of anxiety in patients [33]. The results of the study by Joseph et al., Who evaluated the p6 point in reducing students 'anxiety, also showed the positive effect of acupressure on reduc-

**Table 1.** Comparison of mean and standard deviation of patients' anxiety scores before and after acupressure

Group	Time	Mean±SD		Paired t-test
		Before	After	
Intervention		47.60±7.04	38.2±4.26	P=0.003
Control		51.45±6.08	50.6±7.42	P=0.02
Independent t-test		P= 0.1	P=0.04	

**Table 2.** Comparison of mean and standard deviation of patients' depression score before and after intervention

Group	Time	Mean±SD		Paired t-test
		Before	After	
Intervention		31.85±4.05	28.45±5.67	P=0.005
Control		33.75±3.41	37.15±5.13	P=0.08
Independent t-test		P= 0.07	P=0.001	

ing students' anxiety [20] in this regard, HMWE, which evaluated different points of acupressure in reducing depression and anxiety of patients, also showed a decrease in depression and anxiety of patients after the intervention and showed a statistically significant difference [9]. However, in this regard, the results of a study conducted by Mousavi et al. To evaluate acupressure in reducing students' anxiety did not show a statistically significant difference [23].

## 5. Conclusion

The results of the present study and the significant effect of acupressure at point P6 on reducing anxiety and depression in patients undergoing hemodialysis and the high prevalence of these mental disorders in these patients, as well as the ease, simplicity and cheapness of this method, can be recommended to nurses by learning And acupressure at this point, reduce the level of anxiety and depression in these patients. It is also recommended that more research be done in larger volumes and in other parts of acupressure.

## Ethical Considerations

### Compliance with ethical guidelines

The present study was registered (Ethics Code zbm.u.1.REC.2017.184) and the Clinical Trial Code Number (IRCT20160605028255N2).

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### Authors' contributions

Plan development: Ahmadrza Siasari; Final edition of statistical analysis: Mansour Zamani Afshar; Participation in research: Fatemeh Sargolzaei; Research: Sadegh Dehghan Mehr; Data collection: Najmeh Saberi.

### Conflicts of interest

The authors declared no conflict of interest.

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