

DISCUSSION

The effect of foot reflexology on vital parameters and anxiety of hypertensive patients was examined in this study. The results of this study showed that reflexology has beneficial and effective effects in hypertensive patients. RM-ANOVA showed that in the intervention and placebo groups, some factors had a significant change in these three measured points. The results of this research confirm the hypothesis that foot reflexology positively affects the stabilization of vital signs (SBP, DBP, HR, RR, and SPO₂). This improvement can be based on the fact that there are about 15,000 nerves throughout the body in the feet. Therefore, using the reflexology method calms the nervous system and this improvement has occurred through this nervous relaxation [21]. According to the findings of this study, systolic blood pressure, heart rate, and respiratory rate were significantly reduced in the intervention and placebo groups during the three measured points. Diastolic blood pressure showed a significant decrease only in the intervention group, also the percentage of oxygen saturation increased significantly only in the intervention group. Our results are consistent with previous studies that have shown the effectiveness of the foot reflexology technique in improving physiological parameters [28-32]. A similar study has shown that reflexology has significantly improved physiological symptoms including SBP, DBP, HR, RR, and SPO₂ in patients undergoing coronary angiography [26]. In this regard, our findings are consistent with other studies that have found evidence that foot reflexology reduces SBP and DBP [33]. A study reported that reflexology had a positive effect on reducing SBP and DBP but did not have a significant effect on HR and RR [20]. The inconsistency in the effects of the reflexology is related to factors such as reflexology performed by different individuals, the use of a small sample size, and changes in the number and duration of reflexology sessions [34-36]. Another factor that was examined in this study was the level of anxiety in these patients. The results showed that the level of the state, trait, and total anxiety in the intervention and placebo groups was significantly reduced during the three measured points. On the same line, our findings are consistent with other studies which obtained evidence that foot reflexology decreases state and trait anxiety [37-40]. Contrary to our findings, one study found that foot reflexology was ineffective in reducing anxiety among candidates for coronary artery bypass graft surgery [22]. This difference in results can be due to a variety of reasons, such as the size of the small sample, the use of anti-anxiety drugs, or participation in similar experiments [22]. The exact mechanism of action of reflexology in reducing anxiety is not yet known. Reflexologists believe that reflexology exerts its effects in reducing anxiety by stimulating the release of endorphins and enkephalins. These hormones lead to happiness and relaxation [22].

CONCLUSION

Hypertension affects one-third of adults and is the leading risk factor for heart attack and stroke, and premature death worldwide. The results of this study and most of the research show that foot reflexology has a positive effect on improving physiological factors and anxiety in patients with hypertension. In comparison, in all cases, the positive effects of reflexology in the intervention group were more than a general massage in the placebo group. Observations suggest that both types of massage can be beneficial in many cases, but reflexology is a more effective method. Therefore, foot reflexology as a method of complementary medicine in these patients can be useful and

effective. However, extensive future studies are needed to provide strong evidence to support this approach and to enrich the knowledge base in this area.

DECLARATIONS

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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