



# Selected Music Serves as a Non-Pharmacologic Approach for Anxiety and Depression Relief in Patients Receiving Hemodialysis

*Nader Aghakhani<sup>1</sup>, Zehra Gok Metin<sup>2</sup>, \*Masoumeh Akbari<sup>3</sup>*

1. Food and Beverages Safety Research Center, Urmia University of Medical Sciences, Urmia, Iran
2. Internal Medicine Nursing Department, Faculty of Nursing, Hacettepe University, Ankara, Turkey
3. Spiritual Health Research Center, Faculty of Paramedical, Qom University of Medical Sciences, Qom, Iran

\*Corresponding Author: Email: m.akbari43@gmail.com

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## Dear Editor-in-Chief

End-stage renal disease is an oncoming damage of renal function, that will be incurable without transplantation or dialysis. The patients receiving hemodialysis should endure many limitations in their life, including feelings of disappointment, diminished physical function, complications in interpersonal issues, fatigue, and social isolation (1).

The most common psychological issues among patients receiving hemodialysis are depression and anxiety which are associated to a variety of variables such as frequent hospitalizations, restrictions in daily life, chronic pain, decreased sexual functioning, sleep disorders, co-morbidities, chronic inflammation, increased fatigue, uremia, failure of family support, dependence upon hemodialysis and restrictions in diet and fluids may be the other causes (2,3).

Patient-selected music is a goal-directed approach that can be applied with effective therapy for the treatment of depression and anxiety symptoms and improving emotional well-being in patients receiving hemodialysis (4).

Since the use of medications has many side-effects, this non-pharmacological and complementary method can be used. Thus, we investigated the advantages of patients-selected music on eligible

patients receiving hemodialysis (n=84) in the educational and treatment centers of Urmia City, Iran. The names of the patients were randomly selected. Our data collection instrument comprised demographic variables, such as gender, age, education level, and marital status and the results showed no association between them in patients receiving hemodialysis with Hospital Anxiety and Depression Scale (HADS) scores.

The patients in the intervention group (n=42) listened to their selected music using headphones. In the control group (n=42), headphones were used but no music was played. Since the patients receiving hemodialysis had different tendencies, the music that they selected was naturally used and they were not required to listen to the music that we determined. Immediately after the intervention, rates of depression and anxiety intensity were measured.

Data were analyzed using independent *t*-tests and Fisher's exact tests, which were computed using Graphpad.com; and the level of significance was 0.05.

As illustrated in Table 1, there was no significant difference between the two groups prior to inter-



vention. A significant difference was observed between depression and anxiety intensity in the intervention group before and after the intervention, as well as a difference between depression and

anxiety intensity in the intervention group following listening to selected music determined (Table 1).

**Table1:** Depression and Anxiety intensity after music intervention in two groups of patients receiving hemodialysis <sup>a</sup>

Variable	Study groups	Before intervention	After Intervention	P
		Mean± SD	Mean± SD	
HADS Depres- sion	Intervention group	12.83 ± 3.42	7.93 ± 3.09	0.001
	Control group	10.86 ± 4.22	11.35 ± 4.19	0.53
HADS Anxiety	Intervention group	12.93 ± 4.47	7.45 ± 3.26	0.03
	Control group	11.94 ± 4.04	11.72 ± 4.13	0.36

<sup>a</sup> Data are presented as mean ± SD.

Kim et al. studied the effects of music therapy on anxiety and depression levels and reported the patients receiving hemodialysis who received selected music experienced less anxiety and depression than those who did not receive music therapy ( $F=8.05$ ,  $P=.008$ ) and ( $F=11.86$ ,  $P=.002$ ), respectively (5).

In conclusion, the present study showed that patients who listened to selected music to alleviate anxiety and depression were more likely to solve their issues than those who did not.

## Conflicts of interest

The authors declare that there is no conflict of interest.

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