

## Effectiveness of Breathing Training Program on Quality of Life and Depression Among Hemodialysis Patients: Quasi-Experimental Study

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**Abstract :** Aim: The management of depression in patients undergoing hemodialysis remains challenging. The aim of this study was to evaluate the effectiveness of a breathing training program on quality of life and depression among patients on hemodialysis. Design: A one-group pretest-posttest quasi-experimental design was used. Methods: Data were collected from hemodialysis units at three dialysis centers. Initial baseline data were collected, and a breathing training program was implemented. The breathing training program included three types of breathing exercises. The impact of the intervention on outcomes was measured using both the Kidney Disease Quality of Life Short Version and the Beck Depression Inventory-Second Edition from the same participants. The participants were asked to perform the breathing training program three times a day for 30 days. Results: The mean age of the patients was 52.1 (SD:15.0), with nearly two-thirds of them being male (63.4%). Participants who were undergoing hemodialysis for 1-4 years constituted the largest number of the sample (46.3%), and 17.1% of participants had visited a psychiatric clinic 1-3 times. The results show that the breathing training program improved overall quality of life and reduced symptoms and problems. In addition, a significant decrease in the overall depression score was observed after implementing the intervention. Conclusions: The breathing training program is a non-pharmacological intervention that has proven visible effectiveness in hemodialysis. This study demonstrated that using breathing exercises reduced depression levels and improved quality of life. The integration of this intervention in dialysis units to manage psychological issues will offer a simple, safe, easy, and inexpensive intervention. Future research should compare the effectiveness of various breathing exercises in hemodialysis patients using longitudinal studies. Impact: As a safety precaution, nurses should initially use non-pharmacological interventions, such as a breathing training program, to treat depression in those undergoing hemodialysis.

**Keywords :** breathing training program, depression, exercise, quality of life, hemodialysis

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