

Introduction

Intrauterine Contraceptive Device (IUD) is one of the effective contraceptive methods for use by women of childbearing age.¹ One of the obstacles in IUD installation is the level of anxiety felt by IUD contraceptive acceptor candidate.²

High levels of anxiety can negatively impact the client's experience and comfort during the procedure.³ One of the effective non-pharmacological techniques to reduce anxiety levels is the slow deep breathing technique.⁴ This case report aims to determine the effect of the slow deep breathing technique on reducing anxiety levels in IUD contraceptive acceptor candidate at the independent practice of midwife Pittri, Palembang city in 2025.



Photo Slow Deep Breathing Technique Mrs. Y

Method

The research design used a case study with an Evidence-Based Case Report (EBCR) approach through a search for supporting articles from the PubMed, ScienceDirect, Google Scholar, and Garuda Portal databases with publication years 2020-2025.^{4,5,6,7,8,9,10} The intervention was carried out in one case, namely Mrs. Y, a IUD contraceptive acceptor candidate who showed signs of anxiety before the insertion procedure. The slow deep breathing technique intervention was given for ± 10 to 15 minutes before the IUD insertion procedure by having the client in a lying or semi-fowler position and being asked to place both hands on the stomach (the right hand on the stomach at the bottom of the ribs, the left hand in the middle of the upper chest). Then the client was asked to inhale slowly and deeply through the nose and inhale for 3 seconds and feel the abdomen expand while inhaling. Next, the client held her breath for 3 seconds, pursed her lips, exhaled through her mouth and exhaled slowly for 6 seconds and felt the abdomen or stomach move down. The client is asked to repeat the slow deep breathing technique several times for 15 minutes while still being guided to divert anxiety.¹¹ After the slow deep breathing technique intervention is carried out, the client then independently carries out the slow deep breathing technique while still being monitored, repeated until the IUD insertion procedure is completed.⁴ Measurement of anxiety levels is carried out using the Hamilton Anxiety Rating Scale (HARS) questionnaire before and after the intervention.¹²

Result

The results showed a decrease in anxiety levels from mild to no anxiety after the intervention. Clients also reported feeling calmer and more prepared for the procedure. Furthermore, the literature synthesis also supports the effectiveness of the slow deep breathing technique in reducing anxiety levels in IUD contraceptive acceptor candidate.^{4,5,6,7,8,9,10}

Photo of IUD insertion after Slow Deep Breathing Technique Mrs. Y



Conclusion

Slow Deep Breathing Technique can be an alternative non-pharmacological intervention that is applicable and easy for midwives to implement to reduce anxiety in IUD contraceptive acceptor candidate.



Discussion

Slow, deep breathing, or the slow deep breathing technique, can increase tissue oxygenation, including the brain. This increased oxygen supply contributes to the stabilization of cognitive and emotional functions, allowing individuals to better control fear and anxiety. Slow deep breathing affects the activity of the central and autonomic nervous systems, as well as psychological status. The slow deep breathing technique promotes autonomic changes that increase heart rate variability and respiratory sinus arrhythmia, paralleled by central nervous system modifications. Psychological or behavioral outcomes associated with these changes include increased comfort, relaxation, pleasure, enthusiasm, and alertness, as well as reduced symptoms of arousal, anxiety, depression, and anger. This technique also has a distraction effect, shifting the individual's attention from negative thoughts or fears about the IUD insertion procedure to focusing on the rhythm of breathing.^{4,6,8,9,10}

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