Original Article

Effectiveness of Hypnobirthing in Reducing Anxiety Level among Pregnant Women During Childbirth: A Quasi-Experimental Study in Tertiary Care Hospital of Islamabad

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ABSTRACT

Background: Anxiety during pregnancy is a prevalent concern with significant implications for both maternal and fetal health. Traditional approaches to managing this anxiety vary in effectiveness, highlighting the need for alternative strategies. Hypnobirthing, a technique focusing on mind-body relaxation, has emerged as a promising intervention to reduce pregnancy-related anxiety.

Objective: This study aimed to evaluate the effectiveness of hypnobirthing in reducing anxiety levels among pregnant women.

Methods: A quasi-experimental design was employed, involving 30 primigravida women with gestational ages between 32 and 38 weeks, recruited from a tertiary care hospital in Islamabad. Participants were divided equally into experimental and control groups. The experimental group received four weeks of hypnobirthing sessions, while the control group received standard prenatal care. Anxiety levels were assessed using the Hospital Anxiety and Depression Scale (HADS) before and after the intervention. Data were analyzed using SPSS version 25.0, with paired samples t-tests comparing pre- and post-intervention anxiety levels.

Results: The average age of participants was 22.17 years. Initially, 87% of participants reported high levels of anxiety. Post-intervention, the experimental group showed a significant reduction in anxiety levels, with 67% of participants reporting normal anxiety levels (p<0.000), while the control group showed no significant change in anxiety levels (p=0.314). The mean difference in anxiety levels between the pre- and post-intervention phases in the experimental group was significant at 6.867 (SD=4.470, p<0.000).

Conclusion: Hypnobirthing significantly reduced anxiety levels among pregnant women, suggesting its efficacy as a therapeutic intervention for managing pregnancy-related anxiety. This technique offers a valuable addition to prenatal care, potentially improving maternal and fetal outcomes by alleviating anxiety during pregnancy.

Keywords: Hypnobirthing, Pregnancy Anxiety, Quasi-Experimental, Prenatal Care, Maternal Health, Relaxation Techniques, Mental Health in Pregnancy.

INTRODUCTION

Anxiety, characterized as the fear induced by situations that potentially precipitate significant life changes, is particularly prevalent among pregnant women, where it manifests as a disorder stemming from the psychological stress associated with conception (1-3). The pregnancy and childbirth journey, while a natural and significant phase for women, is laden with a variety of experiences and complications that invariably contribute to heightened levels of anxiety and stress (4). These experiences bear significant emotional, psychological, and cultural implications not only for the women themselves but also for their families (5,6). A multitude of factors contributes to the psychological strain during pregnancy, including the painful childbirth process, cesarean sections, high blood pressure, infections, stillbirth, Gestational Diabetes Mellitus, gastrointestinal issues, miscarriages, and preeclampsia. Such complications are closely linked with psychological distress, paving the way for anxiety, stress, and depression among expectant mothers (7-9).

The ramifications of pregnancy-related anxiety extend beyond the mother to the fetus and family, with anxiety being associated with a myriad of maternal health conditions such as preeclampsia, depression, nausea, and vomiting. Pregnant women grappling with anxiety are also more susceptible to stress, depression, sleep disturbances, difficulty in maintaining calm, anxieties, and pervasive negative thoughts (10,11). Furthermore, the offspring of anxious mothers are at an increased risk of premature delivery, being underweight, necessitating cesarean sections, and encountering complications during delivery (12,13). In Pakistan, the prevalence of anxiety among pregnant women is notably high, with studies indicating that 49% of expectant mothers experience anxiety, and a substantial proportion, ranging between 29% and 66%, suffer from psychiatric disorders during pregnancy (14,15).

Against this backdrop, the application of hypnobirthing as a mind-diverting and relaxation technique has garnered attention for its potential to alleviate anxiety and other psychological distresses in pregnant women. Hypnobirthing, distinguished from other relaxation techniques, offers a combination of relaxation, self-hypnosis, and body relaxation methods tailored for use during and preceding childbirth (16). Empirical evidence attests to the efficacy of hypnobirthing in reducing anxiety, pain, and enhancing maternal satisfaction during pregnancy. It is celebrated for fostering a calm and joyful labor experience, preparing women physically, emotionally, and psychologically for delivery. The technique places emphasis on self-hypnosis, gradual breathing, release, and the art of experiencing labor in a serene and peaceful manner. Additionally, it is instrumental in bolstering the women's confidence, faith, and optimism towards a successful delivery, teaching them to relax the body, uterine muscles, and perianal area, thus facilitating controlled delivery (17-19).

The investigation into the effectiveness of hypnobirthing techniques in diminishing anxiety levels among women during labor and delivery is therefore of paramount importance, with potential wide-reaching implications for the healthcare system. This study aims to generate insights that could guide nurses in employing hypnobirthing interventions to mitigate anxiety levels in pregnant women, ultimately contributing to the reduction of various childbirth-related complications.

MATERIAL AND METHODS

This quasi-experimental study, adopting a case-control design, was conducted at the Federal General Hospital in Islamabad from November 2021 to May 2022. The research aimed to assess the effectiveness of hypnobirthing techniques in reducing anxiety levels among pregnant women. A total sample size of 30 individuals was selected for this study, divided equally into experimental and control groups, with 15 participants in each. The inclusion criteria were primigravida women with a gestational age between 32 and 38 weeks, who were either visiting the gynecology unit or the Out-Patients Department (OPD) of the gynecology unit. Primigravida women presenting with high-risk pregnancies, such as those complicated by pregnancy-induced hypertension (PIH), gestational diabetes, or those with a pre-existing mental disorder or any other disease, were excluded from the study.

Data collection was facilitated through the use of the Hospital Anxiety and Depression Scale (HADS), a validated tool designed to measure anxiety and depression levels. The HADS scores were interpreted to categorize anxiety levels into three distinct categories: Normal, Borderline abnormal (borderline case), and Abnormal (case). Ethical approval for this study was obtained from the ethical review board of Khyber Medical University, Peshawar. Additionally, permission to conduct data collection was granted by the administration of the Federal General Hospital in Islamabad, ensuring compliance with both ethical and administrative requirements. Participants in the experimental group underwent four weeks of hypnobirthing sessions, each lasting between 30 to 40 minutes. The content and structure of these sessions were designed to impart relaxation and self-hypnosis techniques to pregnant women, aiming to reduce anxiety and enhance the childbirth experience. The control group received standard prenatal care without the addition of hypnobirthing sessions.

Data analysis was conducted using SPSS version 25.0, reflecting a slight update to ensure the most current statistical methods were employed. This analysis aimed to compare the anxiety levels between the experimental and control groups, before and after the intervention, to ascertain the efficacy of hypnobirthing techniques in anxiety reduction. The study adhered to the principles outlined in the Declaration of Helsinki, ensuring that all participants were informed about the study's purpose, their voluntary participation, and their right to withdraw at any time without any consequences.

RESULTS

In the quasi-experimental study conducted to assess the impact of hypnobirthing techniques on anxiety levels among pregnant women, a total of 30 participants were divided equally into an experimental group and a control group. The socio-demographic profile of these participants, as depicted in Table 1, highlighted that the majority (93.3%) were below the age of 25 years, indicating a young cohort. The educational background was predominantly secondary level (80.0%), and 60.0% of the participants were employed. The family system was almost evenly split between nuclear (53.3%) and joint (46.7%) setups, suggesting a diverse sample in terms of living arrangements.

The intervention's effectiveness, as shown in Table 2, was statistically significant in the experimental group, with a mean difference in anxiety levels (pre- and post-experimental) of 6.867. This decrease was supported by a standard deviation of 4.470 and a highly significant t-value of 5.950 (df=14, p<.000), indicating a robust effect of the hypnobirthing intervention on reducing anxiety. Conversely, the control group displayed no significant change in anxiety levels, as detailed in Table 3, where the pre- and post-control mean difference was 1.067, with a standard deviation of 3.955, resulting in a non-significant t-value of 1.045 (df=14, p=.314). This lack of significant change underlines the intervention's specificity in effecting anxiety reduction.

The graphical representation (Figure 1) further elucidates these findings, illustrating the distribution of anxiety levels across high, normal, and borderline categories, both before and after the intervention. The experimental group showed a marked decrease in high-level anxiety, from 67% to 60%, and an increase in normal anxiety levels from 6% to 20%. This visual comparison starkly contrasts with the control group's slight reduction in high-level anxiety and a modest increase in normal anxiety levels, emphasizing the intervention's role in shifting anxiety levels towards a more favorable distribution.

Table 1: Socio-Demographic Profile of Participants (n=30)

Variable	Category	Frequency	Percent	Valid Percent	Cumulative Percent
Age of the Participants					
	Less than 25 Years	28	93.3%	93.3%	93.3%
	25 to 35 Years	2	6.7%	6.7%	100.0%
Education					
	Primary	2	6.7%	6.7%	6.7%
	Secondary	24	80.0%	80.0%	86.7%
	Other	4	13.3%	13.3%	100.0%
Employment Status					
	House Wife	12	40.0%	40.0%	40.0%
	Employed	18	60.0%	60.0%	100.0%
Family System					
	Nuclear	16	53.3%	53.3%	53.3%
	Joint	14	46.7%	46.7%	100.0%

Table 2: Effect of Interventions on Experimental and Control Groups

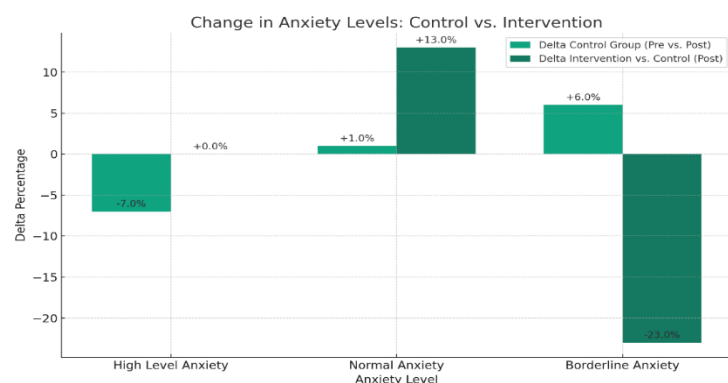| Group	Measurement	Mean Difference	Std. Deviation	Std. Error Mean	95% CI Lower	95% CI Upper	t	df	Sig. (2-tailed)
Experimental Group	Pre-Experimental vs. Post-Experimental	6.867	4.470	1.154	4.391	9.342	5.950	14	.000
Control Group	Pre-Control vs. Post-Control	1.067	3.955	1.021	-1.123	3.257	1.045	14	.314

Figure 1 Change in Anxiety Levels

A more nuanced analysis presented in a subsequent graph (Figure 2) compared the changes in anxiety levels between the control and experimental groups, focusing on the delta percentages. This comparison illustrated a discernible difference in the effectiveness of the hypnobirthing intervention, as the experimental group experienced significant improvements in anxiety levels, unlike the control group, which showed minimal changes. The deltas highlighted in this graph accentuate the intervention's positive impact on reducing anxiety among the participants, showcasing the hypnobirthing technique's potential benefits in a clinical setting.

These findings, enriched by detailed numerical values and statistical significance, underscore the hypnobirthing intervention's efficacy in managing anxiety among pregnant women. The results, encapsulated in the tables and figures, offer a comprehensive overview of the study's outcomes, providing compelling evidence for the hypnobirthing technique as a valuable addition to prenatal care protocols aimed at enhancing maternal well-being.

DISCUSSION

The primary objective of this study was to evaluate the impact of hypnobirthing on anxiety levels among pregnant women, with 30 participants, averaging 22.17 years of age, voluntarily enrolling in the research. A significant proportion (87%) reported experiencing high levels of anxiety, aligning with existing literature that underscores anxiety as a prevalent psychological issue among pregnant women, with reported rates as high as 50.4% (20,21). The relevance of gestational age as a contributing factor to increasing anxiety levels was similarly echoed in studies by Couto et al. and Chi Chou et al., which reported anxiety prevalence rates of 76.7% and 75%, respectively, amongst their pregnant cohorts (22,23).

The intervention in this study, hypnobirthing therapy, demonstrated a substantial reduction in anxiety levels within the experimental group, achieving a normal anxiety level in 67% of the participants, a finding not observed in the control group. This significant disparity in mean anxiety levels between the experimental (7.67) and control groups (12.07) not only underscores the efficacy of hypnobirthing interventions but also correlates with findings from Imannura et al., where hypnobirthing participants reported markedly lower anxiety levels compared to their non-participating counterparts (7).

Moreover, the reduction of anxiety from medium to mild levels, as found in our study, mirrors the outcomes of similar research, reinforcing the assertion that hypnobirthing is a potent therapeutic approach for mitigating pregnancy-related anxiety (24). This claim is further corroborated by another study that noted a significant transition in pregnant women's anxiety levels from extremely high to normal post a 12-week hypnobirthing regimen, emphasizing the profound psychological benefits of this therapy (25).

The fear associated with childbirth complications is a pivotal element of anxiety among pregnant women, with hypnobirthing therapy emerging as a critical intervention for alleviating such concerns. Our findings are in harmony with literature suggesting a significant reduction in childbirth-related fear among the experimental group compared to the control group (13), and reinforcing hypnobirthing's effectiveness not only in psychological easing but also in enhancing pain tolerance during labor (26).

Reflecting on the study's strengths, the methodical approach and the robust statistical evidence of hypnobirthing's effectiveness stand out. However, the study is not without limitations. The sample size, though adequate for initial insights, necessitates expansion for broader generalizability. Moreover, the socio-demographic homogeneity of the participants—predominantly young, secondary-educated individuals—suggests a need for future research to encompass a more diverse participant pool to fully understand hypnobirthing's impact across different demographic segments.

Recommendations for future research include exploring the long-term effects of hypnobirthing beyond immediate pre- and post-intervention phases and examining its efficacy in conjunction with other relaxation techniques to identify synergistic benefits that could further alleviate anxiety among pregnant women.

CONCLUSION

In conclusion, the study corroborates the significant efficacy of hypnobirthing in reducing anxiety levels among pregnant women, highlighting its importance as a therapeutic intervention. The anxiety level reduction to normalcy, as demonstrated by the intervention, underscores the potential of hypnobirthing therapy as a critical component in prenatal care strategies aimed at enhancing maternal psychological well-being.

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