Reducing Effect of Hypnotherapy Anxiety in Pregnant Women

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Abstract: Pregnant women experience feelings of uncertainty, namely positive and negative feelings about the presence of the baby. Positive feelings are in the form of happiness that is expressed freely and do not cause feelings of guilt, and negative feelings are feelings of anxiety about the pain that will occur during childbirth. The third trimester is the peak of the emotional excitement of the birth of a baby. The third trimester is often called the waiting and alert period because at that time the mother can't wait for the birth of her baby. Sometimes mothers worry that their baby will end at any time. The aim of this research is to determine the effect of hypnotherapy on the anxiety of pregnant women at the Siatas Barita Community Health Center, North Tapanuli Regency in 2022. Research Method, This research is a Quantitative research with the research design used is Quasi Experiment with a one group pre test and post test design. A total of 40 pregnant women were taken from Siatas Barita Health Center, North Tapanuli Regency in 2022. Hajil Research. The Wilcoxon test from one group pre test and post test obtained a ρ - value of 0.01, which means that there is an effect of hypnotherapy on reducing the anxiety of pregnant women before and after treatment. The ρ value in this study is 0.01, which is smaller than 0.05, so there is an influence of hypnotherapy to reduce the anxiety of pregnant women at the Siatas Barita Health Center, North Tapanuli Regency in 2021. This shows that Ha was accepted, which means there was an influence of hypnotherapy after the intervention was carried out. Conclusion. There is an effect of hypnotherapy on reducing anxiety in pregnant women, where the Wilcoxon test results have a value of ρ = 0.00 (ρ < 0.05).

Keywords: Anxiety; Hypnotherapy; Pregnant women

Introduction

Pregnancy is called a period of waiting and alertness because at that time the mother can't wait for the birth of her baby. Sometimes pregnancy is a joy for every married couple. Every change in pregnancy can be a stressor in the life of the woman (mother-to-be) (Al-Mutawtah et al., 2023; Wallace & Araji, 2020). Each individual has a different response to every change and is also different in dealing with all their life experiences, this can be seen from their background, education, age, work, pregnancy, social and psychological experiences. In Indonesia, the prevalence of anxiety disorders according to the results of Basic Health Research (Riskesdas) in 2013 showed that 6% of people aged 15 years and over or around 14 million people experienced emotional mental disorders as indicated by symptoms of anxiety and depression.

In the third semester, mothers often feel worried that their baby will be born at any time, mothers also feel worried that the baby they are carrying will not be born normally. This is in line with what Kartono said that when the gestational age is seven months and above, the anxiety level of pregnant women becomes more acute and intensive as the baby is born (Nursyifah et al., 2023; Ross et al., 2015). In the third trimester, pregnant women generally experience anxiety about the birthing process (Ar-Rayyan et al., 2023; Fitriasnani & Nikmah, 2020). In

developed countries around 10% of pregnant women and 13% of postpartum mothers experience mental anxiety disorders and in developing countries around 15.60% of pregnant women and 19.80% of postpartum mothers experience anxiety disorders for their babies (Djatche Miafo et al., 2023).

Positive feelings are in the form of happiness that is expressed freely and do not cause feelings of guilt, and negative feelings are feelings of anxiety about the pain that will occur during childbirth. The third semester is the peak of the emotional excitement of the birth of a baby. The third trimester is often called the waiting and alert period because at that time the mother can't wait for the birth of her baby. Sometimes mothers worry that their baby will be born at any time. The aim of this research is to determine the effect of hypnotherapy on the anxiety of pregnant women at the Siatas Barita Community Health Center, North Tapanuli Regency in 2022.

Method

This research is a quantitative research with the research design used being a Quasi Experiment with a one group pre test and post test design. The research was conducted on pregnant women in the Community Health Center area. Siatas Barita, North Tapanuli Regency. Before the research was carried out, an initial measurement (pre test) was carried out to determine the respondent's anxiety level. Next, a final measurement (post test) was carried out on the group to determine the effect of treatment on respondents.

Table 1. Research Design

Experiment			Post Test
Treatment Group	Pretest	Intervention	Posttest
	O1	X	O2

Experimental Group Description
O1 : Pretest
X : Intervention (hypnotherapy)
O2 : Post test

The population in this study was all pregnant women in the third trimester from July – December 2022, totaling 40 pregnant women. The samples taken in this study used the Total Sampling method, namely 40 pregnant women. Inclusion criteria: Willing to be a respondent; Third trimester pregnant mother; Full maternal awareness; Expressing anxiety. Exclusion criteria: Exclusion criteria are criteria where the research subject cannot represent the sample because they do not meet the requirements as a research sample (Wong et al., 2018; Knott et al., 2022; Vasileiou et al., 2018), Not willing to be a respondent, Instrument This research uses an instrument in the form of the Hamilton Rating Scale for Anxiety observation sheet which consists of 10 components, indicated by the Corrected Item-Total Correlation (Wróbel et al., 2019; Lee et al., 2019; Zsido et al., 2020). The valid observation sheet is then filled in based on the respondent's condition and then provides hypnotherapy intervention.

Method of Collecting Data

Method of collecting data: Primary data, namely data directly obtained by researchers by first asking for informed consent from respondents who fit the inclusion criteria to be given hypnotherapy guidance but first measuring their anxiety using the HARS anxiety scale (Hamilton Anxiety Rating Scale); Secondary data is data from pregnant women obtained from the Siatas Barita Community Health Center, North Tapanuli Regency. Secondary data is obtained from medical record data from the Siatas Barita Community Health Center.

Data Collection Techniques

Observational measurement techniques involve interaction between the subject and the researcher, where the researcher has the opportunity to see the subject after treatment (Bengtsson, 2016). The data collection technique that the author will use is observation technique. In the data collection process in this research, the author divides the process into three parts with the following steps: The author will explain the work procedures before administering hypnotherapy to the anxiety level of pregnant women. Before administering hypnotherapy, the author first observed the subject's anxiety level and approached the subject. Previously the author would ensure that the patient was not given oral medication or injections of a type of sedative to ensure the effect of hypnotherapy on the subject; The author will teach hypnotherapy to the subject, then the subject will carry out hypnotherapy accompanied by the author; After hypnotherapy, the subject will be given rest time, then anxiety measurements will be taken and recorded on the observation sheet. Next, the author observed whether there was an effect of hypnotherapy on the anxiety level of pregnant women; Independent Variable (hypnotherapy) using an observation sheet measuring tool by measuring interviews and reading the hypnotherapy guide, where the measurement results are said to be YES given treatment and NO (if the mother is not given treatment); Dependent variable (anxiety) using the HARS anxiety scale observation sheet measuring tool by measuring interviews, where the measurement results are: no anxiety (if the total score is < 3), mild anxiety (if the total score is 4-10), moderate

anxiety (if total score 11-20), severe anxiety (if total score >20.

Data Processing and Analysis
Data Processing

Data processing is carried out electronically through a computer program with the following steps: Editing: At this stage the researcher checks the data obtained and then examines whether there are errors in filling it in; Coding: After editing, the researcher assigns a specific code to each data to make it easier to carry out data analysis; Tabulating: The activity of creating data tables to facilitate data analysis and reporting; Cleaning Date Entry; Checking the data that has been entered again is done if an error occurs in entering the data, namely by looking at the written distribution of the variables being studied.

Univariate Analysis

Univariate analysis aims to describe the characteristics of each research variable. There are 2 dependent variables in this research, namely hypnotherapy and reducing anxiety for pregnant women. Anxiety of pregnant women before and after intervention. describe ordinal data using mean, median, minimum value and maximum value.

Bivariate Analysis

Bivariate analysis was carried out on two variables that were thought to be influential or correlated (Tessler, 2023). Bivariate analysis used in this research is the Wilcoxon test which aims to determine the effect before and after hypnotherapy which is stated as follows: If the value of $\rho \geq 0.05$, then Ho is accepted and Ha is rejected; If the value of $\rho \leq 0.05$, then Ho is rejected and Ha is accepted.

Result and Descussion

Based on Table 2, it shows that the majority of respondents aged 20-35 years were 25 people (62.50%), the minority aged >35 years were 15 people (37.50%). The parity of respondents is that the majority are Primigravida, 20 people (55%), the minority are Secondigravida and 10 people are multigravida (25%).

Table 2. Frequency Distribution of Characteristics

Variable	Frequency	Percentage (%)
Age	25	62.50
20-35 Years	15	37.50
>35 Years	40	100
Amount	25	62.50

Table 3. Average Frequency Distribution of Anxiety for Pregnant Women Before and After Hypnotherapy

Treatment	Anxiety Level	Frequency			%
Hypnotherapy	No Anxiety	0	40	0	100
	Mild anxiety	12	0		0
	Moderate anxiety	23	0	57.50	0
	Severe anxiety	5	0	12.50	0
	Very serious anxiety	0	0	0	0
Total		40	0	100	0

The table above shows that of the 40 pregnant women, the level of anxiety before treatment (hypnotherapy) was mild anxiety, 12 people (30%), 23 mothers had moderate anxiety (57.50%) and 5 people had severe anxiety (12.50%).) while the level of very severe anxiety was 0. Then after the treatment (post test) all mothers did not experience anxiety, meaning that all pregnant women after being given the intervention 100% did not experience anxiety.

Bivariate Analysis

In table 4 showed that all 40 pregnant women experienced a decrease in anxiety after being given hypnotherapy. The ρ value in this study was 0.01, smaller than 0.05, so there was an influence of hypnotherapy on the anxiety of pregnant women at the Siatas Barita Health Center, North Tapanuli Regency. This shows that Ha is accepted, which means there is an

influence of Hypnotherapy on reducing the anxiety of pregnant women after the intervention.

Table 4. Effect of Hypnotherapy in Reducing Anxiety of Pregnant Women at Siatas Barita Community Health Center, North Tapanuli Regency in 2022

Worry	Score
Before	-3.42[a]
After	.100

Description of the Characteristics of Pregnant Women at the Siatas Barita Community Health Center, North Tapanuli Regency

Based on the results of observations in the field, the number of samples used in this study was 40 pregnant women with the sampling method being total sampling and selected based on inclusion and exclusion criteria, then the level of anxiety was measured before. Based on the age of the respondents in table 4, the majority were aged 20-35 years. as many as 25 people (62.50%) and

minorities aged >35 as many as 15 people (37.50%). Marriage, pregnancy, childbirth, and child care will bring many changes. This of course requires physical and psychological readiness from the mother. Age 20-35 years is considered ideal for pregnancy and childbirth , meaning that the age of the majority of respondents is safe.

Age is a unit of time that measures an object or creature, whether living or dead. Marriage, pregnancy, childbirth and child care will bring many changes. Because at the age of <20 years, the physical condition, especially the reproductive organs and psychology, are not 100% ready to undergo pregnancy and childbirth (Ahmad et al., 2024). Meanwhile, pregnancy at the age of >35 years is a condition that is categorized as having a high risk of congenital abnormalities and complications during pregnancy and childbirth.

According to researchers, the cause of anxiety is not only focused on age because anxiety can occur in every age group, but also because several other internal and external factors trigger anxiety in pregnant women (Imania Awanda & Handayani, 2023; Jacobson et al., 2022; Amici et al., 2022; Harrison et al., 2020). Based on the characteristics of respondents in table 4., the majority of respondents are Primigravida, 20 people (55%), 12 people experience anxiety (30%) and 8 people have no anxiety (20%) and the minority is multi-grande gravida, 10 people (25%), 7 people experienced anxiety (17.50%) and 3 had no anxiety (7.5%). So in this case the respondent's pregnant mother is not classified as high parity. The majority of pregnant women with multigravida parity already have an overview of pregnancy and the birth process from previous pregnancies (Maharaj & Mohammadnezhad, 2022). So during pregnancy you tend to prepare more mentally and psychologically so that you are better prepared to face childbirth (Hassanzadeh et al., 2020).

According to researchers Vogels-Broeke et al. (2022) and Crossland et al. (2023), parity can influence the level of anxiety of pregnant women, but if we look at it from an experience perspective, anxiety occurs more often in primigravida mothers, the same thing can also happen to second-born and multi-mothers with a history or bad experiences that have been experienced in previous births (Sembiring et al., 2022; Sanders & Crozier, 2018). Based on Table 4, it illustrates that of the 40 pregnant women the level of anxiety before hypnotherapy treatment was mild anxiety as many as 12 people (30%), moderate anxiety namely 23 people (57.50%) and severe anxiety as many as 5 people (12.50%) while the level of Very severe anxiety is 0. Then after the treatment (post test) all mothers did not experience anxiety, meaning that all pregnant women after being given the intervention 100% did not experience anxiety.

The Effect of Hypnotherapy in Reducing Anxiety of Pregnant Women at the Siatas Barita Community Health Center, North Tapanuli Regency

Based on Table 4 of the Wilcoxon Hajil Test from one group pre test and post test, the ρ - value was 0.01, which means that there is an effect of hypnotherapy on reducing the anxiety of pregnant women before and after treatment. The ρ value in this study is 0.01, which is smaller than 0.05, so there is an effect of hypnotherapy to reduce the anxiety of pregnant women at the Siatas Barita Health Center, North Tapanuli Regency in 2022. This shows that Ha was accepted, which means there was an effect of hypnotherapy after the intervention was carried out. The results of field observations showed that respondents with anxiety problems before being given hypnotherapy actually became less anxious after receiving hypnotherapy. This is because mothers who are given hypnotherapy feel more relaxed, comfortable and calmer so that mothers are able to manage their thoughts.

An increase in the hormones adrenaline and noradrenaline or epinephrine and norepinephrine causes dysregulation of the body's biochemistry, resulting in physical tension in pregnant women (Álvarez-Diduk & Galano, 2015). The impact of these physiological processes arises on daily behavior (Ecker et al., 2022; Krueger et al., 2022; Darling-Hammond et al., 2020; Gordon et al., 2020). Pregnant women become irritable, irritable, restless, unable to concentrate, hesitate, and may even want to run away from the realities of life. A series of relaxation techniques starting from muscle relaxation, breathing relaxation, mind relaxation and planting positive sentences which are carried out regularly and with concentration will cause a relaxed condition in the body so that the body responds to releasing endorphins which make the mother relax and reduce pain, especially when the brain reaches alpha waves or at rest. In this condition, the body releases the hormones serotonin and endorphins so that humans are relaxed without tension and anxiety (Alizadeh Pahlavani, 2024).

According to researchers Emilinda et al. (2021) and Fernández-Gamero et al. (2024), hypnotherapy has an influence on reducing the anxiety of pregnant women For researchers, hypnotherapy is the most effective, easy and cheap independent method that can be done anytime, anywhere, so it is not only able to manage thoughts, but it can also reduce the consumption of drugs during pregnancy (Hakim et al., 2022). Anxiety is a psychological, physiological, and behavioral state caused in animals and humans by threats to well-being or survival, either actual or potential. It is characterized by increased arousal, expectancy, autonomic and neuroendocrine activation, and specific behavioral patterns. Caspi et al. (2018), Dugal et al. (2016), and

Pihkala (2020) defined three sets of vulnerability factors that interact with each other in the development of anxiety disorders in humans: general biological vulnerabilities, especially those of genetic origin; general psychological vulnerability, resulting in particular from early life experiences; and specific psychological vulnerabilities, focused on specific events or circumstances. This latter group may be involved in the development of specific anxiety disorders (as opposed to generalized anxiety disorders), for example social phobia, obsessive-compulsive and panic disorders, as well as specific phobias. For this reason, hypnotherapy is needed to control anxiety, so that it can stabilize anxiety which can affect the biology that is being experienced (Islami & Hardjanti, 2022).

Figure 1. Schematic of the main brain circuits involved in fear and anxiety

A schematic view of the main brain circuits involved in fear and anxiety (Ferrazzo et al., 2019). External auditory, visual, olfactory, or somatosensory stimuli are transmitted by the thalamus to the amygdala and cortex. The basolateral complex (BLA) of the amygdala is the input side of the system, which also receives contextual information from the hippocampal formation (entorhinal cortex, hippocampus, and ventral subiculum). Following intra-amygdala processing of emotional stimuli, the central nucleus of the amygdala (CeA), on the output side, activates the locus ceruleus (LC) and central and peripheral noradrenaline systems (via corticotropin-releasing factor [CRF] neurons), and the hypothalamus (paraventricular nucleus [PVN] and lateral hypothalamus [LH]).

The basic nucleus of the stria terminalis (BNST, part of the "extended amygdala") is also the control center of the neuroendocrine system by integrating information originating from the hippocampus and amygdala. In addition, the CeA directly activates various midbrain regions or nuclei responsible for different aspects of the fear response: freezing or flight (periaqueductal gray [PAG]), increased respiratory rate (parabrachial nucleus

[PBN]), startle (caudal reticulopontine nucleus). of the reticular formation [RPC]), and the dorsal vagus motor nucleus (DMN) in the medulla, which (along with the lateral hypothalamus) is responsible for the increases in heart rate and blood pressure associated with emotional events. The prefrontal cortex (PFC) processes more complex ("cognitive") information; it modulates physiological, neuroendocrine, and behavioral responses (via the amygdala), and is also involved in the extinction of conditional responses related to fear and anxiety. ACTH, adrenocorticotropic hormone; ANS, autonomic nervous system; blood pressure, blood pressure; GABA, β-aminobutyric acid; Glu, glutamate; NA, noradrenaline (neurotransmitter) or nucleus ambiguus (structure); NTS, nucleus tractus solitarius.
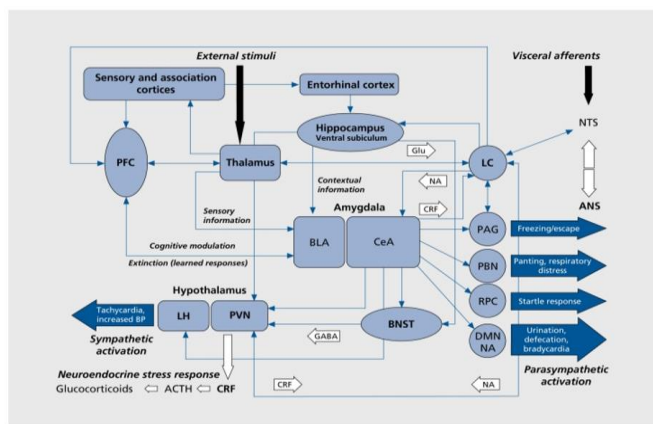
Conclusion

The average anxiety before the intervention was 23 people in the moderate anxiety category (57.50%), 12 pregnant women with mild anxiety (30%) and 5 with severe anxiety (12.50%). The average anxiety after the intervention was that all 40 respondents had no anxiety after doing hypnotherapy and was supported by the results of univariate and bivariate analysis where the Wilcoxon test results had a value of $\rho = 0.00$. There is an effect of hypnotherapy on reducing anxiety in pregnant women where the Wilcoxon test results have a value of $\rho = 0.00$ ($\rho < 0.05$). The average intervention is all respondents 40 people 3. The average intervention is all respondents 40 people have anxiety after doing hypnotherapy and this is supported by the results of univariate and bivariate analysis where the Wilcoxon test results have a value of $\rho = 0.00$. Suggestions

Conflicts of Interest
The authors declare no conflict of interest.

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