



## **Audio selfhypnosis through smartphone can reduce anxiety in pregnant women**

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### **ABSTRAK**

**Latar Belakang:** Perubahan fisik dan psikologis yang kompleks memerlukan adaptasi terhadap penyesuaian pola hidup dengan proses kehamilan yang terjadi. Persoalan dalam kehamilan itu sendiri dapat menjadi pencetus reaksi emosional yang ringan, berat hingga tingkat tinggi. Beberapa ibu hamil, pernah mengalami kondisi mual, muntah, cemas, atau ada pula yang mengalami kehamilan dengan nyaman, tanpa keluhan. Respon yang berbeda tersebut dipengaruhi oleh faktor: fisik, persepsi, pengalaman, Pendidikan, emosi dan dukungan keluarga. Dari beberapa faktor tersebut, faktor pikiran maupun emosi mendominasi terbentuknya respon terhadap kehamilan. Hypnosis adalah suatu metode komunikasi yang efektif untuk memasukkan informasi atau ide baru kedalam pikiran bawah sadar seseorang. Terapi audio self hipnosis pada kehamilan, diharapkan ketidaknyamanan berupa kecemasan yang dirasakan oleh ibu hamil baik karena faktor langsung maupun tidak langsung dapat diminimalisir sehingga dapat menurunkan kejadian penyulit selama kehamilan, persalinan dan nifas.

**Tujuan:** untuk mengetahui penggunaan audio selfhypnosis berpengaruh terhadap pengurangan ketidaknyamanan berupa kecemasan pada ibu hamil.

**Metode:** Menggunakan quasi eksperimen. Populasinya adalah seluruh ibu hamil di Puskesmas Majasem tahun 2021. Pengambilan sampel dilakukan dengan Teknik purposive sampling, yaitu 30 orang ibu hamil yang terbagi dalam 3 kelas ibu hamil. Responden terlebih dahulu dipandu cara melakukan selfhypnosis, kemudian diberi audio selfhypnosis melalui smartphone untuk mempraktikkan sendiri di rumah satu kali setiap hari selama 1 minggu. Kecemasan diukur dengan menggunakan kuesioner sebelum dan sesudah melakukan selfhypnosis. Teknik analisis menggunakan paired sample t test. Data berdistribusi tidak normal, analisis bivariat menggunakan uji Wilcoxon.

**Hasil:** Analisis menunjukkan ada pengaruh penggunaan audio selfhypnosis dalam mengurangi kecemasan pada ibu hamil nilai p value 0,000.

**Kesimpulan:** Penggunaan audio selfhypnosis dapat mengurangi ketidaknyamanan berupa kecemasan pada ibu hamil

**KATA KUNCI:** audio selfhypnosis; kecemasan; ibu hamil

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### **ABSTRACT**

**Background:** Physical and psychological changes require adaptation to lifestyle adjustments with the pregnancy process that occurs. Problems in pregnancy can be a trigger for emotional reactions that are mild, severe to high levels. Some pregnant women have experienced nausea, vomiting, anxiety, or some have experienced pregnancy comfortably, without complaints. These different responses are influenced by factors: physical, perception, experience, education,

emotion and family support. Of these several factors, thoughts and emotions dominate the response to pregnancy. Hypnosis is an effective communication method for incorporating new information or ideas into one's subconscious mind. Audio selfhypnosis in pregnancy, it is hoped that the discomfort in the form of anxiety felt by pregnant women due to direct and indirect factors can be minimized so that it can reduce the incidence of complications during pregnancy, childbirth and the postpartum period.

**Purpose:** to find out the use of audio self-hypnosis has an effect on reducing discomfort in the form of anxiety in pregnant women.

**Methods:** Using quasi-experimental. The population is all pregnant women at the Majasem Health Center in 2021. Sampling is done by purposive sampling technique, namely 30 pregnant women who are divided into 3 classes of pregnant women. Respondents were first guided on how to do self-hypnosis, then were given audio self-hypnosis via a smartphone to practice at home once every day for 1 week. Anxiety was measured using a questionnaire before and after self-hypnosis. The analysis technique uses paired sample t test. Data is not normally distributed, bivariate analysis using Wilcoxon test.

**Results:** The analysis showed that there was an effect of using audio self-hypnosis in reducing anxiety in pregnant women with a p value of 0.000.

**Conclusion:** The use of self-hypnosis audio can reduce discomfort in the form of anxiety in pregnant women

**KEYWORD:** audio selfhypnosis; anxiety; pregnant women

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## INTRODUCTION

Pregnancy is one thing that newly married couples and couples who want to have children look forward to. For newly married couples, news about pregnancy is very encouraging news. During pregnancy, pregnant women experience many changes in terms of physical and psychological (1). Complex physical and psychological changes require adaptation to lifestyle adjustments to the process of pregnancy that occurs. Problems in pregnancy itself can trigger mild, severe to high levels of emotional reactions (2).

To get calm in the face of labor, there are several non-pharmacological methods to relieve anxiety such as pregnancy exercise, distraction, biofeedback, yoga, acupressure, aroma therapy, steam therapy and hypnosis. Hypnosis is a natural method used to relieve fear, panic, tension, and other pressures. Hypnosis is done

by making direct contact with the subconscious, by giving suggestions in order to build various positive emotional conditions (3). According to the Indonesian dictionary, hypnotic suggestions can be delivered by a hypnotist in front of the subject, or may be carried out by the subject himself, which is called selfhypnosis.

Several studies have shown that the hypnosis method can minimize and even eliminate fear, tension, pain and panic syndrome during labor compared to other methods such as aromatherapy, acupuncture, audio-analgesia and massage (4). Other studies have shown that the hypnosis method, a simple method, is effective for reducing treatment with chemical drugs during labor in care during childbirth after (5). Anxiety in pregnancy can be in the form of self-anxiety including: fear of death, fear of parting with the baby, anxiety about health, anxiety about

pain during childbirth, possible complications during pregnancy or childbirth, worry about not getting help during delivery. Anxiety is not directly related to pregnancy and childbirth, such as: fear of husband not being present at delivery, fear of the burden of life getting heavier, fear of responsibility as a mother. Anxiety for their children includes: disabled babies, babies with abnormalities in the organs of the body, babies experiencing interference with the exchange of substances in the body, fear of miscarriage and death in the womb (6). In this study, using audio media containing positive suggestions to reduce anxiety during pregnancy and childbirth, as a tool for self-hypnosis so that pregnant women who have been given an initial explanation about self-hypnosis can more easily suggest themselves by listening to the audio.

Some pregnant women have experienced nausea, vomiting, anxiety, or some have experienced pregnancy comfortably, without complaints. Several experts who examined conditions during pregnancy and childbirth concluded that the different responses were influenced by factors: physical, perception, experience, education, emotion and family support. Of these several factors, thought and emotional factors dominate the response to pregnancy (7) usually she will experience anxiety and will give a response of fight or flight triggered by the abundance of Catecholamines hormones and by the presence of fear and other forms of distress. This research used a quasi experiment method with non randomized pretest potest equivalent group design, without intervention on the comparison group. The questionnaire of Hamilton Anxiety Rating Scale was used to measure the level of anxiety among pregnant women given hypnosis therapy with pregnant women not given the hypnosis therapy. The results showed that there was a significant difference in the mean level of anxiety between cases and controls (SD of 6,004. Hypnosis is an effective method of communication to enter

new information or ideas into one's subconscious mind. This method can be done by oneself (selfhypnosis), with selfhypnosis in pregnancy, it is hoped that the anxiety felt by pregnant women due to direct and indirect factors can be minimized so that it can reduce the incidence of complications during pregnancy, childbirth and the postpartum period (8).

Based on the profile of the Cirebon City Health Office in 2020, that in the city of Cirebon there are still many health centers that have not used the hypnosis method as an alternative in reducing anxiety in pregnant women (9). Moreover, at this time, there are restrictions on activities at the community Health centers due to the Covid-19 pandemic. Majasem Health Center until 2020, the provision of hypnosis to pregnant women has never been done. This is what motivated the author to take the location at the Majasem Health Center in using the self-hypnosis method for pregnant women, to reduce anxiety during pregnancy.

## **MATERIALS AND METHODS**

It is an analytical research, with a quasi-experimental approach. This study measures the level of anxiety of pregnant women, before and after self-hypnosis. The population in this study were all pregnant women in the working area of the Majasem Public Health Center, Cirebon City in 2021. Based on the permit obtained from the Health Office, research activities during this pandemic are limited, adjusted to the local Health Center Policy. The sampling technique used was purposive sampling. Researchers used 30 pregnant women as respondents who were divided into 3 classes of pregnant women who began to be reactivated, after being closed during the pandemic. At the beginning of the activity, a pretest was given about Anxiety in pregnant women. The instrument used is a modified Perinatal Anxiety Screening Scale (PASS) questionnaire, which has been tested for validity and reliability (Cronbach's Alpha value = 0.942

and  $r$  table = 0.553). The questions given were 21 questions about anxiety in pregnant women with a scale of never (code 1), sometimes (code 2), often (code 3) and very often (code 4) with no stress results (value 21), mild stress (22-42), moderate stress (43-63), severe stress (64-84). Filling out the questionnaire was carried out for 15 minutes, then continued with a material session, namely the provision of self-hypnosis techniques by researchers to provide respondents with self-hypnosis at home. At the initial stage, material was given about Self Hypnosis in pregnancy, which was given using power point media (PPT). Next, self-hypnosis was carried out which was guided directly by the researcher, by first carrying out the stages of preparing tools and places, performing relaxation techniques and giving suggestions and ending with a termination session (pregnant women were guided to initial awareness). The hypnosis audio link in this study can be seen at [bit.ly/3WuysnA](https://bit.ly/3WuysnA)

At the end of the activity, the researcher gave a video about self-hypnosis which was distributed to each respondent's number through smartphone, as a self-hypnosis guide at home. This video was made by researchers whose contents provide positive suggestions during pregnancy. The duration of this video is 10 minutes 56 seconds. The researcher made a commitment with the respondents to do selfhypnosis once a day using the video, with a choice of time at night before going to bed, after waking up, or other choices of time

that felt comfortable and calm according to the respondent. Selfhypnosis, which is done by the respondent at home, is carried out for 1 week (every day 1 selfhypnosis). Determination to do selfhypnosis for 1 week, the researchers got based on a literature study of previous research articles with similar variables. In Ririn Anantasari's research in "Hypnosis in reducing anxiety and antenatal pain", it was stated that the intervention of self-hypnosis was carried out once per day for three consecutive days (10). Another study by Sehmawati and Anggita in "selfhypnosis on the anxiety level of pregnant women in preparation for childbirth during the Covid-19 pandemic stated that selfhypnosis activities were carried out every day for 4 consecutive days (11). So the researchers decided to intervene for seven days. Researchers carry out daily checking activities through WhatsApp groups that were formed to facilitate communication between researchers and respondents. Post-test data collection is done through mobile media. In this evaluation activity, the researcher also involved the coordinating midwife of the Majasem Health Center to increase the enthusiasm and commitment of the respondents.

## RESULTS AND DISCUSSION

### RESULT

Anxiety values of pregnant women before and after doing Selfhypnosis are as follows:

**Table 1. Distribution of anxiety values of pregnant women**

before and after selfhypnosis				
Anxiety values	Mean Median	SD	SE	Minimal-Maximal
PreTest	34.17 36.00	7.33	1.33	24-44
Post Test	29.10 30,00	4.73	0.86	21-35

Based on **Table 1**, it is known that there are differences in the average values before and after self-hypnosis. The average value of anxiety after doing selfhypnosis decreased by 5 points. Likewise, the median value of anxiety after doing selfhypnosis decreased by 6 points. Anxiety values also decreased. Before doing selfhypnosis, the lowest anxiety score was 21 and the highest was 44. After doing selfhypnosis,

the anxiety value decreased from a minimum of 21 and a maximum of 35 points

Based on **Table 2**, it is known that the pretest and posttest have a p value <0.05, meaning that the data is not normally distributed, so that the bivariate analysis used is the Wilcoxon test (comparative hypothesis test for non-normal distribution of numerical variables, two groups in pairs).

**Table 2. Normality Test (Shapiro-Wilk) Pre test and Post test**

Anxiety values	Statistic	n	p value
Pre Test	0,150	30	0.004
Post Test	0,208	30	0.001

Based on **Table 3**, it is known that the p value is 0.000, so it can be concluded that there is a significant difference between the anxiety value

of pregnant women before selfhypnosis and after selfhypnosis.

**Table 3. The Effect of Self Hypnosis on Anxiety of Pregnant Women**

Variabel	Median	SD	SE	n	p value
Anxiety Pre test	36	7.33	1.33	30	0.000
Anxiety Post Test	30	4.73	0.86		

## DISCUSSION

The results of this study are in line with Sehmawati's 2020 research on self-hypnosis on the anxiety level of pregnant women in preparation for childbirth during the Covid-19 pandemic, with p value = 0.00, shows that the decrease in the anxiety level of pregnant women is 2.6. The average anxiety level before self-hypnosis was 52.19 (moderate anxiety) and the average anxiety level after self-hypnosis was 49.59 (mild anxiety). A series of relaxation techniques starting from muscle relaxation, relaxation breathing, relaxation of mind and planting positive sentences regularly and concentration will cause relaxed condition of the body so the body responds to secrete endorphins

make mom relax and particularly reduce pain when the brain reaches alpha waves or at rest. In this condition when the body secretes hormones serotonin and endorphins thus humans in a relaxed state without tension and anxiety (11).

The results of Siti Hindun et al's research on self-hypnosis relaxation on the anxiety of pregnant women showed that there was a significant difference between the level of anxiety before and after being given the self-hypnosis relaxation technique, with a p value of 0.000 (12). Winda Martalisa's research in 2013 showed that p = 0.001 (p <0.05) with a correlation coefficient of -689. The correlation coefficient indicates a negative relationship between the anxiety variable and the intensity of hypnobirthing participation. If



the intensity of hypnobirthing participation is more routine, the level of anxiety will decrease (13). The results of this study are in line with Linda Anggraeni that there is an effect of hypnosis on anxiety levels in third trimester primigravida pregnant women with  $p$  value = 0.000 (14). Siti Khuzaiyah, et al showed that Hypnosis relaxation influences the change of fetal heart rate and vital signs of pregnant women with pre-eclampsia with a value ( $p$  value = 0.000; CI = 5.834 – 13,930) (15) heart rate, respiratory rate, and fetus heart rate. Pregnant suffered pre-eclampsia should keep the balance of mind and emotion, as well as to reduce a complication of pre-eclampsia towards mothers and their fetus. Objective: The objective of this study was to analyze the effects of the relaxation hypnosis on fetus heart rate and vital signs of pregnant women with pre-eclampsia. Method: This study was a quasi-experiment with a pretest-posttest design. The total subjects were 32 pregnant women with pre-eclampsia, which selected by purposive sampling techniques. The researcher did hypnosis relaxation for three times. a Wilcoxon test was used to analyze the paired bivariate for systolic blood pressure, while the Mann-Whitney test and independent t-test were used to analyze fetus heart frequency. Result: This study shows that hypnosis relaxation can reduce the systole blood pressure ( $p$ -value = 0.000; CI=12.185-23.109. The results of research about the effect the effect of Hypnobirthing on the anxiety of pregnant women indicate that there is a relevant impact ( $p$  = 0.016) of hypnobirthing on reducing anxiety in respondents (16). Typical behavioral changes in pandemic times are social isolation closely related to psychological problems, so excessive anxiety arises (17).

The use of hypnotherapy helped to reduce anxiety, including freedom from adverse side effects and drug interactions, a lack of addictive risk, and an increase of the patient's sense of mastery knowing that they have self-management skills, other studies on the use of hypnotherapy or self-hypnosis, in general,

resulted in physiological improvements such as a more stable heart rate and have the potential to improve immune function due to reduced stress (18). The anxiety of pregnant women can cause changes in physical activity, rest, nutrition that will affect the mood of the mother's feelings and fetal development. Anxiety can also increase the risk of miscarriage, preterm birth, BBLR, and lower APGAR scores at birth(19). Legrand, et al (2017) about effect of hypnosis during pregnancy showed the results suggest that a short-lived hypnosis intervention (combined with standard care) holds sufficient promise for antenatal stress relief to justify testing its efficacy in larger groups of pregnant women (20).

Limitations in this study include the implementation of selfhypnosis independently at home, having limitations such as a less conducive home situation so that respondents do not focus on selfhypnosis. In addition, the evaluation of the implementation of selfhypnosis was carried out through cellphone media, so this was also a limitation of researchers in collecting existing data.

## CONCLUSION AND RECOMMENDATION

The average value of pregnant women's anxiety is reduced after self hypnosis is done. Self hypnosis has an effect on reducing anxiety in pregnant women. Selfhypnosis is an alternative that pregnant women can do independently, to reduce anxiety during pregnancy. Thus, this technique needs to be socialized to pregnant women, for example in class activities for pregnant women.

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