



The Effect of Acupressure on Length of Labor: A Literature Review

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Abstract. Background: Prolonged labor is labor that lasts more than 24 hours for primiparas and more than 18 hours for multiparas. Long labor can occur either directly or indirectly. Prolonged labor can cause infection, fatigue, dehydration in the mother, and can cause postpartum hemorrhage which can cause maternal death. One way to prevent long labor nonpharmacologically is acupressure. **Purpose:** Conduct a literature review on the effect of acupressure on length of labor. **Methods:** The method used in this study was a literature review design by taking secondary data from Google Scholar using the keyword "the effect of acupressure on length of labor", as many as 5 articles that met the inclusion criteria with the publication year range 2017 -2022. **Result:** There is an effect of acupressure on the length of labor with an average length of labor in the latent phase I stage < 6 hours and an average length of the active phase I stage < 6 hours. There was an increase in maternal contractions in the active phase I of labor with an average uterine contraction frequency of 5 times in 10 minutes. The LI4, SP6, BL67, BL311, BL32, and GB21 points can be used to speed up the duration of labor by pressing 15x in 15 minutes clockwise. **Conclusion:** Acupressure is proven to accelerate labor in the first stage of labor as evidenced by 5 articles showing p value = <0.05.

Keywords: Acupressure, Duration of Labor, First Stage of Labor.

1 Introduction

The Maternal Mortality Rate (MMR) in the world based on data from the World Health Organization (WHO) in 2016 reached 289,000 people from various countries, including the United States with 9,300 people, North Africa with 179,000 people, and Southeast Asia reaching the figure of 16,000 people. Approximately 80% of maternal deaths are caused by increased complications during pregnancy, childbirth and after delivery [1]. Labor is a process of movement of the fetus, placenta, and membranes from inside the uterus through the birth canal. The birth process begins with the development of the cervix caused by uterine contractions with regular frequency, duration and strength. A delivery is considered normal if the process occurs at a sufficient gestational age, i.e. after 37 weeks without any complications [2]. During the birth process there are easy and difficult deliveries. Complications of the labor process can occur in the first stage of the active phase and the prolonged stage I of the latent phase. The prolonged active

phase is characterized by cervical dilatation beyond the right of the partograph alert line. Active phase problems are divided into two, namely protraction disorders (prolonged or protracted) and arrest (stuck or not progressing). Protraction or protraction is a slow opening or lowering speed, for nulliparas the opening speed is less than 1.2 cm/hour or a decrease is less than 1 cm/hour. For multiparas the opening speed is less than 1.5 cm/hour or the descent is less than 2 cm/hour. Meanwhile, arrest is the complete cessation of opening or descent which is characterized by the absence of cervical dilatation within 2 hours (arrest of dilatation) and arrest of descent as the absence of fetal descent within 1 hour [3]. Whereas the latent phase is prolonged when the latent phase lasts more than 20 hours in nulliparas and 14 hours in multiparas.

Prolonged parturition is one of the direct causes of maternal death with an average number in the world of 8% and in Indonesia of 5% [4]. Prolonged labor, namely labor that lasts for more than 24 hours for primiparas and more than 18 hours for multiparas, prolonged labor can occur either directly or indirectly. Prolonged labor can cause infection, exhaustion, dehydration in the mother, and can cause postpartum hemorrhage which can cause maternal death. Meanwhile, the impact of prolonged labor for the fetus is that it can increase the incidence of asphyxia, cerebral trauma caused by pressure on the fetal head, even to fetal death [5].

Prolonged parturition can be prevented in various ways or methods, namely pharmacological and non-pharmacological actions. Pharmacological measures that are usually carried out to prevent prolonged labor are administration of oxytocin, a hormone that can cause contractions in the uterus to become stronger with side effects that can be caused, namely nausea, vomiting, excessive uterine contractions, headaches, hypotension, and tachycardia, and administration of misoprostol which has effectiveness for inducing cervical ripening and uterine contractility but there are side effects of misoprostol administration including nausea, diarrhea, abdominal cramps, flatulence, and even bleeding. Pharmacological action does have better effectiveness compared to non-pharmacological action, but the use of pharmacological methods often causes side effects and sometimes causes unwanted effects. Meanwhile, non-pharmacological methods have non-invasive effects, are simple, effective, and do not cause harmful effects [6].

Non-pharmacological methods that can be used to prevent prolonged labor and accelerate labor include giving aromatherapy, deep breathing relaxation, and acupressure. One of the most frequently used and effective non-pharmacological methods to accelerate labor is acupressure. Acupressure is one of the complementary therapies with a non-invasive type of touch modality. Acupressure is a very simple action, easy to do, cheap, has very minimal side effects, and the application of the healing touch principle in acupressure shows caring behavior that creates a close therapeutic relationship between nurse and patient [7].

Research from Mujahidah, et al (2020) explained that the SP6 and BL67 points were proven to accelerate 1-2 hours of active first stage of labor in primiparas. Acupressure on SP6 and BL67 points can stimulate uterine contractions naturally and make mothers feel comfortable and relaxed by emphasizing these meridian points so that prolonged parturition can be avoided. From the results of the above study, it can be concluded that

giving acupressure therapy is a non-pharmacological method that can be done to prevent prolonged labor and there are various acupressure points. Therefore, based on this background, the authors are interested in conducting a review of the effect of acupressure on labor duration.

2 Method

The research design used in this study was a literature review by summarizing the effect of acupressure on the length of labor. Literature review is an overall summary of several research studies determined on the basis of a particular theme. A literature or article search was carried out on Saturday, October 8, 2022 at 09.10 WIB using the keyword 'the effect of acupressure on the duration of labor'. Then the data to be used in this research is secondary data obtained not from direct observation, but obtained from the results of previous studies. Secondary data obtained was in the form of articles or journals of national reputation with a predetermined theme, namely the effect of acupressure on labor duration. In the process of searching for literature in this literature review using a database, namely Google Scholar and obtained 5 articles according to the inclusion and exclusion criteria. Inclusion criteria for selecting articles to be reviewed on women in the first stage of labor, articles published in 2017-2022, studies explaining that acupressure interventions had an effect on length of labor, and a Quasi Experimental study design.

To assess the quality of the articles ($n = 5$) to be analyzed, a Quasi Experiment type Critical Appraisal from JBI Checklist was used, namely an assessment based on criteria with a value of 'yes', 'no', 'not applicable', or 'unclear'. The value of one point for the criterion is 'yes', while for other criteria a value of zero is given. From all the article scores are then calculated and summed up. If the results of the research score meet the Critical Appraisal criteria of at least 50% with the cut-off value agreed by the researcher, the article is included in the inclusion criteria.

3 Result and Discussion

The purpose of conducting this literature review is to determine the effect of acupressure on the length of labor. An analysis was carried out to determine the effect of giving acupressure therapy on the duration of the first stage of labor, acupressure points that can be used to prevent prolonged labor, and the duration of acupressure action. The number of articles reviewed was 5 articles obtained from the Google Scholar database based on selection according to the inclusion criteria. Of the 5 articles reviewed (Table 1) show the effect of acupressure on labor duration.

Table 1. Literature Review Results

No	Author	Research design	Research Place	Population and Sample	Acupressure Point	Acupressure Technique	Results
1	[8]	Quasi Experiment with Consecutive Sampling technique	Kronjo Health Center and Mekar Baru Health Center, Tangerang Regency	Inpartu stage I latent phase working area of the Kronjo Health Center and Mekar Baru Health Center, Tangerang Regency and the number of samples is 62	SP6&GB2 1	15 times for 15 minutes massaging each point clockwise using the thumb	The results showed that the average duration of the first stage of the latent phase was the control group (403.03 minutes) and the intervention group (337.9 minutes) with a <i>p-value</i> of 0.016 <0.05, so that the intervention group was 66.13 minutes shorter (1 hour 1 minute) compared to the control group
2	[7]	Quasi Experiment with purposive sampling technique	BPM Lia Maria, Bandar Lampung	All of the first stage of labor patients totaled 83 people with a sample of 42 people	LI4	30 times massage clockwise using the thumb	The average maternal contractions before the LI4 massage during the first stage of the active phase was 3.3810 (3 times in 10 minutes) with a minimum contraction score of 3 times in 10 minutes and a maximum of 4 times in 10 minutes and the average

No	Author	Research design	Research Place	Population and Sample	Acupressure Point	Acupressure Technique	Results
							maternal contractions after the massage LI4 is 4.5952 (5 times in 10 minutes) contraction score of at least 4 times in 10 minutes and a maximum of 5 times in 10 minutes with a <i>p-value</i> of 0.000
3	[9]	Quasi Experiment with Accidental Sampling technique	Juwana Health Center, Pati Regency	There were 36 primigravida mothers and a sample of 30 mothers who gave birth	BL31&B L32	-	The length of labor in the first stage of labor in the intervention group that was given BL31.32 acupressure was the mean value of 4.39 hours, the lowest was 3 hours, and the highest was 5.3 hours and the standard deviation was 0.84. Meanwhile, the length of labor in the first stage of labor for mothers in the control group was the mean value of 5.88 hours, the lowest was 4 hours, and the highest was 8 hours with a standard deviation of 1.2.

No	Author	Research design	Research Place	Population and Sample	Acupressure Point	Acupressure Technique	Results
							There is an effect of BL31, 32 acupressure on the length of labor in the first stage of primigravida mothers (<i>p-value</i> = 0.001)
4	[10]	<i>Quasi Experimental with Accidental Sampling</i> technique	Gunung Jati Hospital, Cirebon City	Mothers gave birth during the first primigravida with a sample of 30 people	SP6&BL6 7	Massage clockwise	The average length of labor in the first primigravida stage in the <i>acupressure</i> group was 5.46 hours and the average length of delivery in the first primigravida stage in the control group was 7.01 hours. Statistical test results showed that there was a significant difference between the length of the first stage of labor in the <i>acupressure</i> group and the control group with a <i>p-value</i> of 0.000
5	[11]	<i>Quasi Experimental with Accidental</i>	First Clinic Niar Medan Sandpaper	All mothers who came for a third trimester pregnancy check-up visit in	LI4	-	The results obtained were that the average contraction in mothers before the LI4 massage was

No	Author	Research design	Research Place	Population and Sample	Acupressure Point	Acupressure Technique	Results
		<i>Sampling</i> technique		July 2020 were 55 people and the total sample was 20 people			carried out experienced moderate contraction intensity, namely an average contraction of 33.45 seconds with the lowest contraction rate of 23 seconds and the highest of 54 seconds. Whereas in the intervention group, after the L14 massage was done, the intensity of contractions was good, namely the average contraction was 42.95 seconds with the lowest contraction rate being 25 seconds and the highest being 60 seconds. The results of data analysis showed $p = 0.001$, there was an effect of acupressure on the natural induction of labor with an increase in contractions of 9.5 seconds

3.1 Study Characteristics

The review results of the 5 articles studied took research sites from 5 hospitals and maternity homes from different cities and spread across 5 different provinces, namely 1 study in Banten, 1 study in Lampung, 1 study in Central Java, 1 study in West Java, and 1 study in North Sumatra. Then from 5 articles, 2 research articles took respondents at the Puskesmas, 1 research article at a public hospital, and 2 research articles at a maternity clinic. The place of research is an area or location where a research activity is carried out. The choice of place is very important because it can have an impact on the ease of conducting research. In this study, the effect of acupressure on the length of labor in mothers who gave birth could be seen through the research location, namely in the hospital or maternity hospital [12].

All research articles (100%) used a quasi-experimental research design, so it can be concluded that the research design used for research was dominated by a quasi-experimental research design. Quasi-experimental is a type of research that uses at least 2 research groups, namely one is a control/comparison group and one is an intervention/treatment group. Quasi-experimental is also commonly referred to as quasi research, this research design is usually used for research that takes human subjects as research. The purpose of the quasi-experimental research design is to test the hypothesis regarding the influence of a certain variable on other variables [13].

For the sampling technique, the results obtained were 1 article (20%) using the consecutive sampling technique, 1 article (20%) using the purposive sampling technique, and 3 articles (60%) using the accidental sampling technique. So, the majority of the sampling technique used is accidental sampling. Accidental sampling is a research sampling technique by taking respondents who are available by chance in a place that meets predetermined research criteria.

The accidental sampling method is the easiest sampling technique and has high flexibility, a technique that saves both labor and money, has freedom for the researcher to determine the sample that best meets the requirements/criteria [8]. Because the sample used in this study were mothers giving birth in the first stage, the sampling technique chosen for research conducted in hospitals, health centers, and maternity homes was accidental sampling.

3.2 The Effect of Acupressure on the Length of the First Stage of Labor

From a review of 5 articles, all showed that there was a difference in the length of labor between the control group and the intervention group after being given acupressure as evidenced by a p-value <0.05 . The combination of acupressure at SP6 & GB21 points showed that the duration of labor in the first stage of the latent phase of the intervention group was 337.9 minutes (5 hours 6 minutes) while in the control group it was 403.03 minutes (6 hours 7 minutes) where the intervention group was shorter, 66.13 minutes (1 hour 1 minute) compared to the control group.

The results of the research from the articles reviewed concluded that the duration of the first stage of labor in the primigravida acupressure group was shorter than the control group, both in the latent and active phases, namely the average length of labor in

the first stage of the latent phase was 5 hours 6 minutes (< 6 hours) and the average length of labor in the first stage of the latent phase was 5 hours 6 minutes (< 6 hours) and the average length of labor in the first stage of the active phase is 5 hours 4 minutes (< 6 hours). The average length of the first stage of labor in the intervention group that was given acupressure decreased the length of labor by 1-2 hours.

The results of this study were supported by Budiarti's research (2013) with the title of research on the effect of acupressure on pain and the first stage of labor in Garut with the results of the study finding that most of the birthing mothers who received acupressure lasted < 6 hours as much as 80% [10]. The results of this study are also in accordance with the theory that complications in the first stage of labor are non-progressive or prolonged labor. The prolonged latent phase is enforced if there is no opening of 4 cm after 8 hours of labor with regular hissing and the active phase is prolonged if labor lasts > 8 hours [11].

The results of this article review are in line with research conducted by previous researchers such as the study of Mujahidah et al (2020) that the duration of the first active phase of labor for respondents who were given acupressure received a mean value of 5.0 with a range of length of the first stage of labor which was 4-5 hours and experiencing accelerated delivery time during the first active phase of 1-2 hours [12].

3.3 Increase in uterine contractions in the first stage

From a review of 5 articles, there were 2 articles which explained that there was an increase in uterine contractions after giving acupressure intervention with the same acupressure point, namely LI4 (*hegu*) and 3 other articles which did not explain uterine contractions in laboring mothers. The results showed that the average contraction of the control group during the first stage of the active phase was 3.3810 (3 times in 10 minutes) with a contraction score of at least 3 times in 10 minutes and a maximum of 4 times in 10 minutes and the average contraction of the LI4 acupressure group was 4.5952 (5 times in 10 minutes) contraction score of at least 4 times in 10 minutes and a maximum of 5 times in 10 minutes.

The results of the review found that the LI4 acupressure point could increase uterine contractions for mothers in the first stage of the active phase both in terms of frequency and duration with a p-value <0.05 so that it could accelerate the first stage of labor. The average frequency of uterine contractions after being given acupressure was 4.5952 (5 times in 10 minutes) with a contraction score of at least 4 times in 10 minutes and a maximum of 5 times in 10 minutes. The average duration of uterine contractions after being given acupressure was 42.95 seconds (good intensity) with the lowest contraction rate being 25 seconds and the highest being 60 seconds. The average frequency of uterine contractions in the first stage of labor after acupressure is performed is 4-5 times in 10 minutes.

In accordance with the theory of labor in the active phase of the first stage of labor, the frequency and duration of uterine contractions generally increase (contraction will be considered adequate if it occurs 3 times or more within 10 minutes and lasts for 40 seconds or more) and there is a decrease in the lower part of the fetus. Based on Friedman's curve, it is calculated that the opening in the primigravida is 1 cm/hour and the

opening in the multigravida is 2 cm/hour [3]. Uterine contractions are the primary force in labor, emphasis on acupressure points focuses on balancing yin and yang and maintaining the function of vital organs through the circulation of blood and energy (chi) in the body. This statement is in accordance with Budiarti's research (2011) that increased contractions are a result of a balanced body response, where the body can produce hormones properly so as to trigger an increase in good contractions. So that massage or emphasis on acupressure points can increase uterine contractions, stimulate normal labor, improve cervical dilatation (opening), reduce pain during labor, and provide a sense of calm and relaxation thereby accelerating fetal decline and accelerating the duration of labor [10].

3.4 Points That Can Be Used to Speed Up Labor

1. LI4 (*Hegu*)

The LI4 or *hegu* point is located between the first (thumb) and second (index finger) metacarpal bones on the distal part of the folds of both hands. Emphasis on the LI4 point can intensify contractions, guiding the sie to move downwards thereby speeding up the duration of labor. In addition, LI4 can also stimulate the release of oxytocin from the putuitary gland which in turn will increase uterine contractions to increase the delivery process [7], [12].

2. SP6 (*Sanyinjiao*)

The SP6 point is located 3 cun (4 toes) above the inner ankle. SP6 (*sanyinjiao*) points are L2 and L1, the dermatomic tract runs then to T12 and T5. The SP6 point is important in assisting cervical dilatation and can be used when the cervix is not effectively dilating during labor. This point is the junction point between the liver, spleen and kidney meridians which is generally used as a labor induction to speed up the duration of labor and can be used to reduce labor pain. Acupressure at the SP6 point has been shown to increase the hormone oxytocin which can improve the smoothness of labor [12].

3. BL67 (*Zhiyin*)

The BL67 point or commonly called the *zhiyin* point is believed to stimulate contractions during labor and can change the position of the fetus. Also, acupressure applied to this point can make labor easier as it increases the effectiveness of uterine contractions. This point is located on the foot, more precisely at the tip of the outer little finger and close to the edge of the little toe nail [12].

4. BL31 (*Shang Liao*) and BL32 (*Ciliao*)

Acupressure on points BL31 and BL32 has a relaxing, relaxing and calming effect on mothers in labor. Besides that, it is also able to strengthen contractions, improve cervical dilatation (opening of the cervix), accelerate fetal decline, and speed up the length of labor [10].

5. GB21 (*Jianjing*)

The GB21 point is located on the shoulder exactly straight below the ear, between the two muscles, and in the area above the arm. This point can trigger or stimulate uterine contractions. In addition, acupressure performed at the GB21 point can stimulate uterine contractions in birthing mothers by stimulating the release of the

hormone oxytocin from the pituitary gland so that it can help improve the labor process and shorten labor time naturally in the first latent stage of labor in primigravidas [13].

3.5 How to Give Acupressure

Based on the results of a review of the 5 articles, there were 2 articles that applied different amounts of acupressure but the direction and duration of the acupressure action were the same, namely for 15 minutes in a clockwise direction and the acupressure technique used using the thumb. The technique and duration of acupressure have a different effect on the duration of labor. The dominant acupressure direction in the acupressure administration technique is clockwise with acupressure duration of 15 times in 15 minutes.

It can be concluded from the articles reviewed that massage or emphasis on acupressure points is done with the aim of strengthening it by doing massage 15 times in a clockwise rotation direction. This emphasis is applied using the rounded part of the thumb instead of the fingertips of the thumb with the nail discoloration going from reddish to pale. When doing massage should not be too hard to cause excessive pain. In a study by Eifel et al (2021) explained that applying pressure or acupressure with the aim of strengthening can affect a calmer psychology, increase feelings of comfort, relax, satisfaction, and create closeness between nurses and patients. Emphasis on acupressure points can also stimulate the release of the hormone oxytocin which can stimulate contractions so as to shorten the length of labor [14].

4 Conclusion

Based on the results of a literature review conducted on 5 articles regarding the effect of acupressure on length of labor, it can be concluded as follows:

1. There was an effect of acupressure on the duration of labor in the intervention group, the average length of labor in the latent phase of the first stage was 5 hours 6 minutes (< 6 hours) and the average duration of the first stage of labor in the active phase was 5 hours 4 minutes (<6 hours). In the control group, the duration of labor in the first stage of the latent phase was >6 hours and the active phase was >7 hours. The average length of the first stage of labor in the intervention group that was given acupressure decreased the length of labor by 1-2 hours.
2. There was an effect of acupressure on increasing the contractions of women in the intervention group in the first active phase with an average uterine contraction frequency of 4.5952 (5 times in 10 minutes) with a contraction score of at least 4 times in 10 minutes and a maximum of 5 times in 10 minutes. The average of the control group in the first phase of the active phase was 3.3810 (3 times in 10 minutes) with a contraction score of at least 3 times in 10 minutes and a maximum of 4 times in 10 minutes. The average frequency of uterine contractions in the first stage of labor after acupressure is performed is 4-5 times in 10 minutes.

3. Acupressure points that can be used to speed up the duration of labor are LI4, SP6, BL67, BL311, BL32, and GB21 points. The acupressure point that was most effective for shortening the duration of labor was the combination point SP6&GB21 and the acupressure point that was most effective at increasing uterine contractions was LI4.
4. The technique of giving acupressure for 15 times in 15 minutes at each acupressure point in a clockwise direction using the thumb can increase uterine contractions and shorten the length of labor for the first stage of labor.

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References

1. D. Nurmalita Sari, *Penyakit dan Kelainan Dari Kehamilan*, no. June. 2022.
2. I. Prastiwi, M. Iskandar, D. Agustin, and B. M. Anggraini, "Faktor-Faktor yang Berhubungan dengan Kejadian Partus Lama Pada Ibu Bersalin di RS Bhakti Husada Cikarang Tahun 2020," *J. Kesehatan. "Bhakti Husada,"* vol. 07, no. 02, pp. 9–17, 2021.
3. T. R. Handayani, *Laporan Hasil Penelitian Hubungan Status Gravida dan HIS Ibu Bersalin dengan Kejadian Partus Lama di PKU Muhammadiyah Tahun 2019*. 2020.
4. Y. Haryanti, "Analisis Hubungan Ketuban Pecah Dini (KPD) dan Paritas dengan Partus Lama," *J. Malahayati*, vol. 9, no. 3, pp. 371–377, 2020.
5. Yuhana, T. Farida, and Turiyani, "Hubungan Ketuban Pecah Dini, Partus Lama, dan Gawat Janin dengan Tindakan Persalinan Sectio Caesarea di Rumah Sakit TK. IV DR. Noesmir Baturaja Tahun 2020," *J. Ilm. Univ. Batanghari Jambi*, vol. 22, no. 1, pp. 78–83, 2022, doi: 10.33087/jiubj.v22i1.1735.
6. A. P. Setiadi, Y. I. Wibowo, I. G. Y. Anggara, and I. M. Y. Dhitama, "Kajian Penggunaan Misoprostol Oral dan Vagina Sebagai Penginduksi Persalinan," *J. Kesehatan.*, vol. 12, no. 1, pp. 61–66, 2021.
7. N. S. Lathifah and L. O. Iqmy, "Pengaruh L14 terhadap Peningkatan Kontraksi pada Kala I Persalinan," *J. Kesehatan.*, vol. 9, no. 3, pp. 433–438, 2018.
8. Muayah, L. Septiani, U. Sabarudin, H. Wijayanegara, H. Sastramihardja, and T. T. Novyi, "Pengaruh Kombinasi Akupresur pada Titik Sp6 (San Yin Chiao) dan Gb21 (Jian Jing) Terhadap Pemendekan Kala I Fase Laten pada Primigravida," *JSK*, vol. 6, no. 71, pp. 14–19, 2019.
9. S. N. U. Febriyanti, Praniati, and Widiyaning, "Pengaruh Akupresure Bladder 31, 32 Terhadap Lama Persalinan Kala 1 pada Ibu Bersalin Primigravida di Puskesmas Juwana Kabupaten Pati," *J. Kesehatan.*, vol. 3, no. 123, pp. 1–7, 2018.
10. P. O. P. Oktaviani and T. Gunawati, "Efektivitas Acupressure Sebagai Induksi Persalinan pada Masa Intranatal," *J. Kesehatan. Pertiwi*, vol. 3, no. B, pp. 8–13, 2021.
11. L. Nugraeny and L. Andriani, "Pengaruh Akupresur Terhadap Induksi Alami Pada Ibu Bersalin Di Klinik Pratama Niar Medan Amplas Tahun 2020," *J. Kebidanan, Keperawatan dan Kesehatan.*, vol. 1, no. 1, pp. 1–8, 2021.
12. S. Notoatmodjo, *Metodologi Penelitian Kesehatan*, Ed. rev. Jakarta: Rineka Cipta, 2010.

13. C. J. Miller, S. N. Smith, and M. Pugatch, "Experimental And Quasi-Experimental Designs In Implementation Research," *Psychiatry Res.*, vol. 283, no. March 2019, p. 112452, 2020, doi: 10.1016/j.psychres.2019.06.027.
14. Setyowati, R. Koestoer, and S. Heni, "The Effectiveness of Pain Digital Acupressure (PDA)' in Reducing Labor Pain and The Duration of The Second Stage of Labor," *Int. J. Dev. Res.*, vol. 07, no. 07, pp. 13578–13583, 2017, [Online]. Available: <http://www.journalijdr.com>.
15. C. Eifel and A. Sunarto, "Terapi Akupresur terhadap Intensitas Nyeri Persalinan Kala I," *J. Kebidanan*, vol. 11, no. 01, pp. 18–26, 2021.

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