
THE EFFECTIVENESS OF ACUYOGA POSTPARTUM ON PRIMIPAROUS POSTPARTUM PAIN WITH PERINEAL TRAUMA

by Lucky Herawati

Submission date: 20-Nov-2020 05:32AM (UTC+0700)

Submission ID: 1451568399

File name: 5._165-Original_Article-1803-1-10-20191221.pdf (186.78K)

Word count: 2925

Character count: 16065

REVIEW ARTICLE

THE EFFECTIVENESS OF ACUYOGA POSTPARTUM ON PRIMIPAROUS POSTPARTUM PAIN WITH PERINEAL TRAUMA

Lydia Febrina Sipahutar*^{1,3}, Lucky Herawati², Melyana Nurul

Widyawati

- 1 Postgraduate Student of Poltekkes Kemenkes Semarang
 - 2 Politeknik Kesehatan, Kementerian Kesehatan, Yogyakarta
 - 3 Politeknik Kesehatan, Kementerian Kesehatan, Bengkulu
- * Correspondence: lydia.fe15@gmail.com

ABSTRACT

Perineal trauma commonly impacts on childbirth women due to laceration or intentional because of an episiotomy. The study aimed to examine the effect of AcuYoga postpartum on decreasing the pain among primiparous postpartum with perineal trauma. A quasi-experimental, pre-test, and post-test design with a non-equivalent control group were applied in this study. Thirty-four samples were allocated to the experimental and control groups. The experimental group received the AcuYoga postpartum, and the control group received the general postnatal exercises. The findings showed that there are significant differences in pain levels among the experimental group who received the program than a control group who receive routine care (p -value <0.05). There are significant differences in pain levels among the experimental group before and after program implementation ($p<0.05$). Further studies need to examine Acuyoga on other variables such as duration of perineal wound healing, the process of elimination, and clinical biomarkers

Keywords: Acuyoga, exercise, primipara, pain, perineal trauma.

International Journal of Nursing and Health Services (IJNHS), December 2019, Volume 2, Issue 4; Page 375-381

Received: 01 June 2019; Revised: 15 July April 2019; Accepted: 30 July 2019

DOI 10.35654/ijnhs.v2i4.165

INTRODUCTION

Perineal trauma is a common event among women during the childbirth period (1). About 60-70% of them with first childbirths need to suturing (2). This condition impacts pain and continuously in the puerperium period that affects the quality of life (3-4). The perineum is a path passed during labor. This perineal case often occurred among mothers with the first time of or primipara. Bleeding from a perineal tear need to intensive care to prevent more blood loss (4, 5).

Data showed that 85% of spontaneous labor with 32-33% have perineal trauma, and 52% come from lacerations that occur spontaneously (6). From the number, 32% of them have a moderate to severe pain level (7). The pain depended on the caused of pain, tolerance to pain, psychological, and environmental factors.

Pain among postpartum mothers was significantly affected on the quality of life, stress, anxiety, and lack of ability to taking care for babies (8). Moreover, less mobilization, bonding attachments, fatigue, sleep disturbances, and persistent pain also impact on the recovery process in taking-in stage among mothers (9).

Individuals would different pain perceived depend on how the impression of threats and challenges occurred. Mothers with perineum trauma were considered to have wound injury. It was indicated to have severe pain and impact on the elimination process as well as the disruption of uterine contractions.

Several studies described effective strategies to reduce pain, including applying interaction between body, mind, and spirit (10, 11), analgesic drugs (12), and acupuncture/ acupressure, and yoga (8). Physical activity and yoga-based interventions were also considered as an effective non-pharmacological intervention on reducing postpartum maternal pain (12). Yoga is a practical effort to harmonize the body, mind, and spirit, which is truly the best for building strong posture, and flexible and strong muscles, and the central nervous system (13).

Proper physical activity and training improved the regression of body changes (14). Postpartum Acuyoga (Combination of Acupressure & Yoga) is a combination of acupressure and yoga techniques, where both of these techniques will be combined as a unified relaxation technique so that it can regulate vital energy flow. Some of the benefits of acuyoga are increasing the body's resistance, muscles becoming supple, strengthening bones, preventing and treating pain. On the body's acuyoga as a whole in physical, emotional, and spiritual not only focuses on the disease (15).

Acupressure and yoga with breathing techniques exercise the pelvic floor muscles and improves focus (16). Acuyoga was first developed by Michael Reed Gach, the founder of Acupuncture Institute Berkeley, California. Acu-yoga is traditional Chinese medicine, yoga, and hatha yoga therapy, which naturally stimulates specific meridians in healing (17).

Even though the intervention was sufficient, however, the limited study was conducted in the postpartum period in Indonesia. Therefore, this study focused on "Effectiveness of Postpartum Acuyoga (Combination of Acupressure & Yoga) on primiparous postpartum pain with perineal trauma."

OBJECTIVE

The study aimed to examine the effect of Postpartum Acuyoga on decreasing postpartum pain among primiparous postpartum.

METHODS

Research Design

We conduct a quasi-experimental, pre-test and post-test design with non-equivalent control group

The setting, samples, and sampling

Samples in this study were normal maternal with a perineal trauma of twenty-four hours. Thirty-four total was allocated in the experimental and control groups. The method of sampling in this study used a simple random sample. This study was divided into two groups. Group one was given Postpartum Acuyoga intervention; the second group was general postpartum exercise.

Instrument

Three main instruments were used in this study as follows; 1) Observation sheet consisted of respondents' code, age, education, occupation, observation sheet of postpartum pain intensity to measure postpartum pain; 3) Pain measurement scale

questionnaire using the Visual Analogue Scale (VAS), and 3) AcuYoga postpartum guidelines. Those questionnaires have been validated by three experts

Ethical Consideration

This study has been approved by Komisi Etik Penelitian Kesehatan Fakultas Kedokteran Gigi Universitas Islam Sultan Agung Semarang Number 072/B.1-KEPK/SA-FKG/IV/2019.

Data Analysis

Descriptive analysis was used to describe the characteristics of each variable in the percentage, frequency of education, employment and anxiety. Data were tested for normality distribution. Mann Whitney test were used to examine the pain level before and after receiving the intervention. ANCOVA was performed to determine the effect of an intervention on pain level after adjusting the covariance such as age and anxiety.

RESULT

Characteristic of respondents

Table 1 showed that this study described the characteristic of respondents. The findings showed the majority of respondents, both the experiment group (82.4%) and the control group (76%), were between 20 to 35 years old. Most respondents also have middle education levels in both the experiment group (70.6%) and the control group (52.9%). More than half the respondents in the experimental group have employment (52.9%), while 64.7% of respondents the control group were unemployment (64.7%). Regarding the anxiety level, both experimental group and the control group were a moderate level of anxiety. There are no significant differences between the experimental and control group (p-value>0.05). Details explanation were summarized in table 1.

Table 1: Characteristics of Respondents

Characteristics	Group				Total	p-value	
	Experiment n=17		Control n=17				
	n	%	N	%			
Age	<20 years old	2	11.8	4	23.5	6	0.595*
	20-35 years old	14	82.4	12	70.6	26	
	>35 years old	1	5.9	1	5.9	2	
	Total	17		17		34	
Education	Low	2	11.8	5	29.4	7	0.424*
	Middle	12	70.6	9	52.9	21	
	High	3	17.6	3	17.6	6	
	Total	17		17		34	
Employment	Unemployment	8	47.1	11	64.7	19	0.300*
	Employment	9	52.9	6	35.3	15	
	Total	17		17		34	
Anxiety	Mild	4	23.5	4	23.5	8	0.924*
	Moderate	8	47.1	7	41.2	15	
	Severity	5	29.4	6	35.3	11	
	Total	17		17		34	

a chi-square test

*level of significance $\alpha > 0.05$

Mean differences scores of pain level within the experimental group and the control group

Table 2 described the mean differences scores of pain before and after receiving the program. The findings showed that there are significant differences in pain levels among the experimental group before and after program implementation ($p < 0.05$). Contrary, no significant differences among the control group before and after program implementation ($p\text{-value} > 0.05$). Details explanation were summarized in table 2

Table 2. Mean differences scores of pain level within the experimental group and the control group

Group		Mean±SD	<i>p-value</i>
Experiment	Pretest-	74.71±8.745	0.000
	Posttest	10.59±9.663	
Control	Pretest-	71.76±8.828	0.085
	Posttest	37.06±16.111	

Mean differences scores of pain level between the experimental group and the control group

Table 3 described the mean differences scores of pain before and after program implementation between the experimental group and the control group. The findings showed that there are significant differences in pain levels among the experimental group who received the program than a control group who receive routine care ($p\text{-value} < 0.05$). Details explanation were summarized in table 3.

Table 3. Mean differences scores of pain level between the experimental group and the control group

Group	n	Mean Rank	Mean±SD	<i>p-value</i> ^a
Experiment	17	19.21	73.24±8.780	0.266
Control	17	15.79		
Experiment	17	10.62	23,82±18,75	0.000*
Control	17	24.38		
Experiment	17	10.97	-4.677±2.567	0.000*
Control	17	24.03		

a Mann-Whitney test

*level of significance $\alpha < 0.005$

The effect program on Pain Intensity after adjusted covariance

Table 4 described the effect program on Pain Intensity after adjusted covariance such as age and anxiety. The results showed that there is a relationship between anxiety with postpartum pain intensity among the experimental group ($p\text{-value} < 0.05$).

However, no correlation between postpartum pain intensity after adjusted age (p -value>0.05) with R-Square value 0.502. Therefore 50.2% of anxiety influenced the severity of postpartum pain.

Table 4 The effect program on Pain Intensity after adjusted covariate

Variable		<i>p-value</i> ^a	<i>R Square</i>	<i>p-value</i> ^b
Pain Intensity	Age	0,024*	0.502	0,108*
	Anxiety	0,749*		0,000*
	Group			0.001*
<i>a. Correlation test</i>				
<i>b. ANCOVA test</i>				
*Level of significance $\alpha < 0.05$				

Discussion

Pain is a condition and an unpleasant feeling. This pain was subjective due to the people experiencing (18). In this study, postpartum pain of patients after receiving the intervention showed a significant different than before receiving the yoga intervention. It was consistent with previous study showed that yoga application with mind body therapy has a positive effect on decreasing pain level, mental health and psychological aspects of pain. Mind-body therapy involves a physical posture, breathing exercises, and meditation to improve overall well-being. Yoga is one of the strategies used to trigger muscle strengthening, flexibility, and balance activities indirectly modulate pain perception and improve overall emotional function (19).

The combination of acupressure and yoga are combination of body, soul and mind exercises as well as relaxation. This method could greatly reduce primipara postpartum pain with perineal trauma (20, 21). The underlying mechanisms from this combination of acupressure and yoga including: 1) stimulating afferent nerves of type I and II or A-delta fibers in the muscle that send impulses to the anterolateral tract in the spinal cord. 2) Acupressure stimulates midbrain structures that release monoamine norepinephrine and serotonin in the spinal cord. 3) stimulation of systemic release from beta-endorphins into the bloodstream from the pituitary gland along with adrenocorticotrophic hormones (22, 23,24).

In this study concluded that postpartum AcuYoga (a combination of acupressure and yoga) was effectively to reduce primipara postpartum pain. An acupressure method with yoga poses also proved a positive effect on decreasing local pain by stimulating the nervous system reflex mechanism and mechanical stimulation of producing release of bradykinin, prostaglandins, substances P changes.

Conclusion

The combination between two methods of acupressure and yoga have strong positive effect on reducing postpartum pain with perineal trauma. This also has positive impact on feelings of pleasure and happy that data stimulates immunity or immunity.

Limitation

The limitations of the study only examined the variable intensity of pain. The researcher was unable to fully control the external variables that could affect the experiment, for example, the tradition of massage after giving birth and maternal nutrition. Evaluation is still limited to 2 times before and after the intervention.

Recommendation

Further study need to examine the effect of acuyoga on other variables, for example length of perineal wound healing or elimination process after childbirth. Moreover, this study also need to test the biomarkers improvement such as norepinephrine, or immunoglobulin A.

References

- 1) Vieira F, Guimarães JV, Souza MCS, Sousa PML, Santos RF, Cavalcante AMRZ. Scientific evidence on perineal trauma during labor: Integrative review. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2018;223:18-25.
- 2) Ugwu EO, Iferikigwe ES, Obi SN, Eleje GU, Ozumba BC. Effectiveness of antenatal perineal massage in reducing perineal trauma and post-partum morbidities: A randomized controlled trial. *Journal of Obstetrics and Gynaecology Research*. 2018. 44(7):1252-1258
- 3) Begley C, Guilliland K, Dixon L, Reilly M, Keegan C, McCann C, et al. A qualitative exploration of techniques used by expert midwives to preserve the perineum intact. *Women and Birth*. 2018. 32(1):87-97
- 4) Aasheim V, Nilsen ABV, Reinar LM, Lukasse M. Perineal techniques during the second stage of labor for reducing perineal trauma. *Cochrane Database of Systematic Reviews*. 2017(6).
- 5) D'Souza JC, Monga A, Tincello DG. Risk factors for perineal trauma in the primiparous population during non-operative vaginal delivery. *International urogynecology journal*. 2019:1-5.
- 6) Mora-Hervás I, Sánchez E, Carmona F, Espuña-Pons M. Perineal trauma in primiparous women with spontaneous vaginal delivery: Episiotomy or second-degree perineal tear. *Int J Women's Health Reprod Sci*. 2015;3(2):84-8
- 7) Mulati TS. Nyeri perineum berdasarkan karakteristik pada ibu postpartum. *Involusi Jurnal Ilmu Kebidanan (Journal of Midwifery Science)*. 2017;7(13).
- 8) Neels H, De Wachter S, Wyndaele J-J, Wyndaele M, Vermandel A. Does pelvic floor muscle contraction early after delivery cause perineal pain in postpartum women? *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2017;208:1-5.
- 9) Kinser PA, Pauli J, Jallo N, Shall M, Karst K, Hoekstra M, et al. Physical Activity and Yoga-Based Approaches for Pregnancy-Related Low Back and Pelvic Pain. *Journal of Obstetric, Gynecologic & Neonatal Nursing*. 2017;46(3):334-46.
- 10) Rohmah N. Manajemen Nyeri Non Invasive Pada Ibu Post Partum dengan Pendekatan Evidence Based Practice. *Jurnal Ners*. 2017;6(2):201-9.
- 11) Chethana B, Raghunandan C, Saili A, Mondal S, Saxena P. Prenatal Yoga: Effects on Alleviation of Labor Pain and Birth Outcomes. *J Altern Complement Med*. 2018; 24 (12): pp. 1181-1188

- 12) Zech I, Fuchs P, Fuchs A, et al. Pharmacological and Non-Pharmacological Methods of Labour Pain Relief—Establishment of Effectiveness and Comparison. *International journal of environmental research and public health*. 2018; 15: 2792
- 13) Hughes CM, Liddle SD, Sinclair M, McCullough JEM. The use of complementary and alternative medicine (CAM) for pregnancy-related low back and/ or pelvic girdle pain: An online survey. *Complementary therapies in clinical practice*. 2018;31:379-83.
- 14) Resmi DC, Hadisaputro S, Runjati R. Effect Of Yoga And Acupressure On Pain And Functional Capability Of Lower Back In Pregnant Mothers During The Third Trimester Of Pregnancy. *Belitung Nursing Journal*. 2017;3(6):722-8.
- 15) Davies GA, Wolfe LA, Mottola MF, MacKinnon C. No. 129-Exercise in Pregnancy and the Postpartum Period. *Journal of Obstetrics and Gynaecology Canada*. 2018;40(2):e58-e65.
- 16) Ghosh K, Hankey A, Srinivasan T. Effect of lotus posture on acupuncture meridian energies: A controlled trial. *International journal of yoga*. 2017;10(2):88-94.
- 17) Renityas NN, Sari LT, Wibisono W. Faktor-Faktor Yang Mempengaruhi Keberhasilan Tehnik Acuyoga Pada Ibu Primigravida. *Research Report*. 2017:36-41.
- 18) Walsh F. Traumatic loss and major disasters: Strengthening family and community resilience. *Family process*. 2007;46(2):207-27.
- 19) Handayani YU and Ulandari N. Pengaruh Aromaterapi Lemon Terhadap Penurunannya Perineum Pada Ibu Post Partum 1-2 Hari Di BPM "H" Bukittinggi Tahun 2018. *'AFIYAH*. 2018; 5.
- 20) Szabo A, Griffiths MD, Demetrovics Z, Psychology, and Exercise. *Nutrition and Enhanced sports performance: Elsevier*; 2019, p. 63-72
- 21) Sejati PE, Indasah I, Koesnadi K. Effectiveness of Acuyoga (Acupressure and Yoga) Antenatal and Pregnancy Massage Against Intensity of back pain and sleep disturbance in Third Trimester Pregnant Woman in dr. Aisyatul Mukminah Sp. OG (K)'s Practice in Tulungagung. *Journal for Quality in Public Health*. 2017; 1: 77-89.
- 22) Dabiri F and Shahi A. The effect of LI4 acupressure on labor pain intensity and duration of labor: a randomized controlled trial. *Oman medical journal*. 2014; 29: 425-429.
- 23) Bonta IL. Acupuncture beyond the endorphin concept? *Medical Hypotheses*. 2002; 58: 221-4.
- 24) Sari DU and Putri HA. Hubungan senam hamil dengan kejadian ruptur perineum pada persalinan normal di rsu pku muhammadiyah bantul. Universitas' Aisyiyah Yogyakarta, 2017.
- 25) Kurniyawan EH, Haryanto J, Sriyono S, Nur KRM, Afandi AT. Terapi Akupresur dan Murottal Al-Quran Terhadap Intensitas Nyeri dan Endorfin Urin (Therapy Acupressure and Murottal Al-Quran On The Pain Intensity and Endorfin Urine).

THE EFFECTIVENESS OF ACUYOGA POSTPARTUM ON PRIMIPAROUS POSTPARTUM PAIN WITH PERINEAL TRAUMA

ORIGINALITY REPORT

9%

SIMILARITY INDEX

3%

INTERNET SOURCES

6%

PUBLICATIONS

3%

STUDENT PAPERS

PRIMARY SOURCES

- 1** Anjar Astuti, Suryono Suryono, Melyana Nurul Widyawati, Ari Suwondo, Mardiyono Mardiyono. "EFFECT OF AUDIO THERAPY USING AL-QUR'AN MURROTAL ON BEHAVIOR DEVELOPMENT IN CHILDREN WITH AUTISM", Belitung Nursing Journal, 2017
Publication 1%
 - 2** Submitted to Laramie County Community College
Student Paper 1%
 - 3** Dewi Candra Resmi, Suharyo Hadisaputro, Runjati Runjati. "EFFECT OF YOGA AND ACUPRESSURE ON PAIN AND FUNCTIONAL CAPABILITY OF LOWER BACK IN PREGNANT MOTHERS DURING THE THIRD TRIMESTER OF PREGNANCY", Belitung Nursing Journal, 2017
Publication 1%
-

4	Internet Source	1%
5	"1st Annual Conference of Midwifery", Walter de Gruyter GmbH, 2020 Publication	1%
6	Salih Aydın, Umit Taskin, Israfil Orhan, Bengül Altas, Mehmet Faruk Oktay, Mehmet Toksöz, Ramazan Albayrak. "The analysis of the maxillary sinus volumes and the nasal septal deviation in patients with antrochoanal polyps", European Archives of Oto-Rhino-Laryngology, 2014 Publication	1%
7	www.yogajournal.com Internet Source	1%
8	Submitted to University of Wollongong Student Paper	1%
9	link.springer.com Internet Source	1%
10	Bravo, Gina, Pierre Gauthier, Pierre-Michel Roy, Hélène Payette, Philippe Gaulin, Monique Harvey, Lucie Péloquin, and Marie-France Dubois. "Impact of a 12-Month Exercise Program on the Physical and Psychological Health of Osteopenic Women", Journal of the American Geriatrics Society, 1996.	<1%

11

Natalie Russell, Bevin Daniels, Betty Smoot, Diane D. Allen. "Effects of Yoga on Quality of Life and Pain in Women With Chronic Pelvic Pain", Journal of Women's Health Physical Therapy, 2019

Publication

12

Nikmah Jalilah Ritonga, Onny Setiani, Umaroh Umaroh, Kamilah Budhi R, Faisal Amri. "ROSELLE FLOWER (HIBISCUS SABDARIFFA) IN THE TREATMENT OF HYPERTENSION IN POSTPARTUM MOTHERS", Belitung Nursing Journal, 2017

Publication

13

Eviwindha Suara, Mardiyono Mardiyono, Anggorowati Anggorowati. "RELATIONSHIP BETWEEN DEMOGRAPHIC CHARACTERISTICS AND SPIRITUAL WELLBEING AMONG CANCER SURVIVORS", Belitung Nursing Journal, 2017

Publication

14

Khoiron, A N Probandari, W Setyaningsih, H S Kasjono. "Implementation of environmental policy on solid waste management in Bondowoso Regency - Indonesia", Journal of Physics: Conference Series, 2020

Publication

<1%

<1%

<1%

<1%

Exclude quotes On

Exclude matches < 5 words

Exclude bibliography On