

Yoga and Facial Acupressure to Prevent Baby Blues and Depression in Postpartum Period

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Abstract: *A psychological problem that is commonly experienced but ignored is baby blues and then leads to postpartum depression. The aim of the research was to determine the effect of practicing yoga and facial acupressure on the incidence of baby blues and postpartum depression in Bali. The research design was quasi-experimental with pretest- posttest without control group. The intervention group was divided into three different intervention groups. Interventions include yoga, facial acupressure, and a combination of yoga and facial acupressure. The total number of samples involved was 81 pregnant women in the third trimester from the end to 4 weeks postpartum. The research was carried out from July to October 2023, carried out at three public health centers or Puskesmas Bali. There was a significant difference between the pretest and posttest baby blues screening scores (p -value <0.05) in the group of subjects who were given yoga intervention. However, significant differences were seen in Edinburgh Depression Postpartum Score (EDPS) ($p < 0.05$). The influence of yoga and facial acupressure on baby blues and EDPS scores was found to have a significant effect ($p < 0.002$ and $p < 0.001$). The results of the correlation analysis between husband's support and EDPS scores show that the higher the husband's support is negatively correlated with the respondent's depression score ($r = 0.714 - 0.8334$). Efforts are needed to increase knowledge and awareness of husbands and families regarding the signs of baby blues and postpartum depression through real activities in classes for pregnant women and home visits.*

Keywords: baby blues; postpartum depression screening; EDPS

1. Introduction

The postpartum period is a series of periods that require serious attention from the family, especially parents, husband or couple, and health workers. There are several problems commonly experienced by women during the postpartum period, in the form of physical, psychological, social and sexual problems. These psychological problems often arise due to drastic hormonal changes, especially the hormones progesterone and estrogen (1–3).

Recommendations that have been prepared by WHO (2015) regarding care for postpartum mothers include psychosocial support to prevent postpartum depression, especially in groups of women at risk (after the event of a stillborn baby, miscarriage or stillbirth, unexpected/planned pregnancy, weak social support). Previous studies found that there was a delay by health workers in detecting and managing baby blues and postpartum depression (4–7).

Postpartum care for women includes psychosocial support to prevent postpartum depression, especially in groups of women at risk. Risks group in this condition are: after the event of a stillbirth, miscarriage, unexpected/unplanned pregnancy, and weak social support. Previous studies found that health workers was not aware in detecting and managing baby blues and postpartum depression (8–11). Conditions such as baby blues and postpartum depression (PPD), if not treated properly it can have serious and even fatal consequences, especially suicides and health problems in babies including infanticide (11–15). The incidence of baby blues and PPD is known to be triggered by various factors, such as: the sex of the baby being born, fatigue, economic problems, lack of rest and sleep, and low quality of life (16).

The results of studies in various countries regarding efforts to detect early baby blues and postpartum depression have been carried out. Significant triggers or predictors of PPD have been identified. One effort to find out these predictors is through early detection in clinical practice in an easy way. Early detection helps health service providers carry out systematic detection so that they can more quickly manage PPD cases. The incidence of PPD is generally triggered by previous psychosocial stressors and is exacerbated after the birth of the baby (17). The World Health Organization has recommended since 2016 that pregnancy is a pleasant experience, including labor and the birth of a baby (18).

Conventional treatment in the postpartum period has not provided optimal satisfactory result for postpartum women. The results of previous studies show that there are several complementary service activities provided, including: aromatherapy, yoga, meditation, oxytocin massage, facial acupuncture, acupuncture, and hundreds (19–27). The study results have not shown specific intervention results related to complementary services for postpartum mothers (21,26,27). The prevalence of complementary services used by postpartum mothers in Malaysia is 85% (27). The response of postpartum women regarding the complementary services used is good and really helps provide comfort, attachment to their partner, relaxation and fitness (27–34). Studies conducted in the United States have found that routine screening for postpartum mothers in health facilities is screening for postpartum depression (35).

This study aims to explore the effect of providing yoga intervention, facial acupressure and a combination of both to reduce complaints and symptoms of postpartum depression in Bali. Bali is an island that is a world-famous

tourist destination. The richness of cultural arts, including alternative medicine, has been known for centuries. Yoga has been widely used and has become a trend to improve the physical and mental health of individuals who practice it. Yoga services during pregnancy have become a program of community health centers or Puskesmas in Bali, especially in classes for pregnant women. Yoga for pregnant women is done after 20 weeks of pregnancy and the pregnancy is normal. Facial acupressure is known to provide a calming and relaxing effect. Light pressure and massage on the face, neck and upper back area provides a pleasant effect (23,36,37).

2. Material and methods

Design

The type of quantitative research is quasi-experimental, namely pretest- posttest without control group. The intervention group was divided into three, namely: intervention group 1 was given yoga intervention, intervention group 2 was given facial acupressure, and intervention group 3 was given a combination of yoga and facial acupressure intervention.

Populations and samples

The sample consisted of midwives and clients or postpartum mothers who met the inclusion and exclusion criteria in the period July-October 2023. Each intervention group involved between 25 and 29 subjects. The subjects involved were late third trimester pregnant women (gestational age >36 weeks) until the fourth week postpartum. The subjects involved were late third trimester pregnant women (gestational age >36 weeks until the fourth week postpartum) who met the inclusion and exclusion criteria.

Context

The research instrument is related to the implementation of facial acupressure and yoga interventions through questionnaires, checklists/observation sheets. Before being given guidance and practicing yoga, facial acupressure and a combination of both, a pretest was carried out by distributing questionnaires to the subjects. The pretest takes approximately 20 minutes. The intervention was carried out after the pretest using demonstration and re-demonstration techniques. Education and intervention media use videos, modules and job sheet guidelines interchangeably. Yoga and facial acupressure interventions are given 1-2 times during classes for pregnant women at the health center for 20-30 minutes per session.

Data collection and statistic analysis

Data were collected from July to September 2023. Researchers have obtained ethical approval from the Denpasar Ministry of Health Polytechnic Ethics

Commission in 2023 before data collection with letter number: LB.02.03/EA/KEPK/0659/2023. Researchers were assisted by three enumerators who had been trained previously. Respondents were collected by the coordinator midwife at the community health center, and attended the pregnant women's class every Saturday and according to agreement. An average of 7-12 pregnant women were gathered at each meeting session. Data collection on respondents was carried out 2-3 times, namely during the pretest and intervention, then during the posttest, namely during the postpartum visit. The time interval between the intervention and the posttest is around 3-4 weeks. The enumerator has asked for the respondent's telephone number, making it easier to carry out follow-up and evaluate. STATA data analysis was used. Data analysis for univariate analysis, for analyze the data characteristics of respondents/subjects and the effectiveness of facial acupressure and yoga with proportion. Bivariate analysis uses Anova.

3. Results

3.1 Characteristics of respondents in the intervention group

From the respondents characteristics analysis, it was found that the average of the respondents overall was 28.07 years. At each health center, the lowest age was 18 years and the oldest was 41 years. The highest average husband's income was 10,000,000 rupiah at three health centers. The highest respondent income was 3,500,000 rupiah. The lowest income for husbands and respondents was no income or 0 rupiah. The highest level of education of respondents was at undergraduate level, were respondents at Tabanan III Community Health Center (4 people/ 14.81%) and UPTD. Kesmas I District of Denpasar Timur (4 people/13.79%).

Data on table 1 below, show that the average number of pregnancies for respondents is 2.32 and the average number of births is 1.52. The lowest number of pregnancies was 1 and the highest was the fifth pregnancy. The place of delivery most frequently chosen by previous respondents was the maternity clinic (46 women/ 56.79%).

3.2 Support

On average, husbands' support for their wives is quite strong with a mean score of above 6 out of a maximum score of 7, and the lowest score is 1 for support for self-confidence, economics, empathy and helping to strengthen the wife. The next low score with score= 2 is on affectionate support, comfort, caring for the wife's feelings and sharing household tasks after the baby is born.

Table 1: Partner's/ Husband's Support During Pregnancy to Postpartum Period

No	Health Care Center	Nuclear Family			
		Yes (n%)	No(n%)	Pearson Chi Square	Sig
A.		Live with Nuclear Family			
1	Sawan II(25)	21(84.00)	4(16.00)	22.25	0.000*
2	Tabanan III (27)	6(22.22)	21(77.78)		
3	Denpasar Timur I (29)	10(34.48)	19(65.52)		
	n=81	37(45.68)	44(54.32)		

Partner's/ Husband's support (n=81)					
		Mean (μ)	SD	Min	Max
1	Feeling love	6.58	1.09	2	7
2	Comfortable	6.60	1.03	2	7
3	Trusted	6.25	1.65	1	7
4	Instrumental support	6.69	0.87	3	7
5	Financial support	6.52	1.13	1	7
6	Informational support	6.54	1.00	3	7
a	Birth place	6.62	0.81	3	7
b	Danger signs	6.33	1.11	3	7
c	Maternal and baby care	6.55	0.85	3	7
d	Sharing role	6.58	0.91	3	7
e	Take care of the wife's feelings	6.59	0.98	2	7
f	Empathy	6.65	0.98	1	7
g	Teamwork	6.67	0.90	2	7
h	Strengthen the wife	6.39	1.50	1	7

Sources: Primary Data Analysis (2023)

3.3 Results of Baby Blues Screening and EDPS Pretest and Posttest in the Intervention Group

The results of the pretest and post test analysis with Postpartum Depression screening were that in the yoga intervention group at the Tabanan III and East Denpasar I Community Health Centers, there was a significant difference between the pretest and posttest baby blues screening scores (p-value <0.05). Meanwhile, in the yoga

intervention group at the Sawan II Community Health Center, there was no significant difference in postpartum depression screening.

The results of the analysis regarding differences in effects between treatments in the three intervention groups showed a significant effect, namely p<0.05, especially on post partum depression screening (p<0.05).

Observe (Baby Blues Screening)	Mean Posttest-Pretest	SE	SD	95%CI		p-value
Puskemas Sawan II (n=25)	0.84	0.17	0.85	0.489	1.191	0.0012*
	1.68	0.32	1.62	1.008	2.351	
	-0.84	0.23	1.14	-1.311	-0.368	
Puskemas Tabanan III (n=27)	1.11	0.32	1.67	0.449	1.772	0.0387*
	1.48	0.28	1.48	0.897	2.066	
	-0.37	0.17	0.88	-0.719	-0.020	
Puskemas Denpasar Timur I (n=29)	1.69	0.29	1.58	1.087	2.291	0.0299*
	2.14	0.33	1.81	1.450	2.825	
	-0.45	0.19	1.05	-0.849	-0.047	
Skrining Depresi Postpartum						
Puskemas Sawan II (n=25)	20.56	0.91	4.54	18.687	22.433	0.9650
	20.52	0.92	4.62	18.613	22.426	
	-0.04	0.90	4.50	-1.819	1.899	
Puskemas Tabanan III (n=27)	1.33	0.46	2.37	0.395	2.270	0.0212*
	1.96	0.45	2.34	1.035	2.890	
	-0.63	0.26	1.33	-1.157	-0.101	
Puskemas Denpasar Timur I (n=29)	2.03	0.42	2.27	1.169	2.899	0.0066*
	2.69	0.47	2.52	1.730	3.649	
	-0.65	0.22	1.20	-1.112	-0.197	

4. Discussion

1) Characteristics of Respondent

Respondent characteristics are an important determinant in the high incidence of baby blues and depression in the postpartum period. This is stated by various complex factors, namely internal and external factors, including: primigravida; previous history of depression; worry; relationship with husband/partner and family that is not harmonious; low family support, especially husband/ partner (9,17,38-40).

Another condition is a history of complications from previous births, including sociodemographic factors in the

form of the woman's very young age, low socioeconomic status, low level of education and the quality of antenatal care, including the attachment between pregnant women and health workers(41-47).

The characteristics of respondents or women who use complementary and alternative services are generally higher educated and have a higher socio-economic background, and have the belief that complementary services alleviate the complaints they experience in addition to the racial and cultural factors that are believed to be(46,48,49).

In line with the results that have been obtained, complementary and alternative services in pregnancy are a

means of supporting a sense of self-determination, to realize a natural and safe birth. Women also feel a close affiliation with the philosophical foundations of pregnancy and childbirth as natural conditions and processes and alternative services as part of the biomedical service model.

Stress in women during pregnancy until the postpartum period requires serious attention, because it can cause various negative effects for both the woman and her baby. Unexpected pregnancies also increase anxiety and fear for women (2,43,46). This is generally related to feelings of inability to care for the baby or fulfill various needs for caring for the baby (economic), as well as feelings of shame if the pregnancy occurs as a result of rape or pregnancy outside of marriage. Support from husbands and families is very important for pregnant women to feel safe and comfortable. Low support from husband/partner and family support is known to reduce women's self-confidence and attachment to the baby to be born (39,40,50,51).

2) Support System

The support needed by women during pregnancy to postpartum includes emotional/psychological support, instrumental support, economic support, appreciation support and information support. Based on the results of research on a broader scale, it is known that adequate support from a partner/husband can prevent psychological problems in women during the postpartum period. Another impact is increasing bonding or bonding attachment between mother and baby, increasing self-confidence, self-esteem and preventing anxiety, fear, and success in exclusive breastfeeding. The social support provided by the husband/partner during the pregnancy period has a positive impact in the form of increasing happiness, quality of life, life satisfaction and well-being (47,52–55).

The results of a wider scale study found that there is a positive relationship between adequate social support and the mental or psychological well-being of the mother. pregnancy until the postpartum period (53). Adequate forms of emotional, instrumental and informational support from partners/instruments for pregnant women have an impact on acceptance of their pregnancy. Pregnant women who receive sufficient social support from social networks have a greater potential to accept and pay attention to changes related to pregnancy. This in turn can foster positive behavioral outcomes that encourage engagement in good pregnancy care practices and acceptance of motherhood (52).

Pregnant women will gain a sense of security and satisfaction with the maternal health services provided if there is involvement and autonomy provided by their spouse/partner, family and social environment or network. This in turn can foster positive behavioral outcomes that encourage engagement in good pregnancy care practices and acceptance of motherhood (52). So, the social support received has a positive impact on the mother's condition during pregnancy until the birth of her baby, and reduces psychological problems during the postpartum period.

3) The effect of yoga and facial acupressure on baby blues scores and EDPH scores

There was a decrease in screening scores for baby blues and postpartum depression in the yoga and facial acupressure intervention groups. Respondents admitted that they felt more comfortable, relaxed and calm after being given yoga and facial acupressure interventions. Yoga is basically a movement for the body and soul. Yoga has become a trend or lifestyle in various parts of the world. Yoga movements that focus on breathing and concentration can have a calming effect, increase concentration and increase the strength of the muscles of the stomach, chest, hips and other parts of the body (56–58).

The results of a previous study in Bali regarding complementary services for pregnant and postpartum women at community health centers showed that yoga and facial acupressure increased the bond between husband and wife. Wives or pregnant women feel more loved and appreciated, thereby increasing their self-confidence and readiness to become a mother (59–61). Acceptance of pregnant women and their husbands/families regarding yoga and facial acupressure is related to various factors, namely the educational media, the ability or competence of service providers (midwives) and the infrastructure supporting educational and guidance activities at the health center.

5. Recommendation

Efforts need to be made to increase knowledge and awareness of husbands and families in recognizing the signs of baby blues and postpartum depression through real activities in classes for pregnant women and home visits. It is necessary to emphasize the role and support of husbands and families for women during pregnancy to postpartum to provide attention, assistance and assistance to prevent psychological problems, especially in the postpartum period. Health service institutions, especially community health centers and private practice of midwives, to provide complementary postpartum services on an ongoing basis plus the provision of infrastructure for yoga and facial acupressure activities at community health centers.

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Conflict of interest

There is no conflict of interest in this research.

References

- [1] Liu S, Yan Y, Gao X, Xiang S, Sha T, Zeng G, et al. Risk factors for postpartum depression among Chinese women: Path model analysis. *BMC Pregnancy Childbirth*. 2017;17(1):1–7.
- [2] Skalkidou A, Hellgren C, Comasco E, Sylvén S, Sundström Poromaa I. Biological aspects of postpartum depression. *Women's Heal*. 2012;8(6):659–72.
- [3] Abdollahi F, Rohani S, Sazlina GS, Zarghami M,

- Azhar MZ, Lye MS, et al. Bio-psycho-socio-demographic and Obstetric Predictors of Postpartum Depression in Pregnancy: A prospective Cohort Study. *Iran J Psychiatry Behav Sci.* 2014;8(2):11–21.
- [4] Sharma V, Sharma P. Postpartum Depression: Diagnostic and Treatment Issues. *J Obstet Gynaecol Canada [Internet].* 2012;34(5):436–42. Available from: [http://dx.doi.org/10.1016/S1701-2163\(16\)35240-9](http://dx.doi.org/10.1016/S1701-2163(16)35240-9)
- [5] Dadi AF, Miller ER, Mwanri L. Postnatal depression and its association with adverse infant health outcomes in low-and middle-income countries: A systematic review and meta-analysis. *BMC Pregnancy Childbirth.* 2020;20(1):1–15.
- [6] Evagorou O, Arvaniti A, Samakouri M. Cross-Cultural Approach of Postpartum Depression: Manifestation, Practices Applied, Risk Factors and Therapeutic Interventions. *Psychiatr Q.* 2016;87(1):129–54.
- [7] Hansotte E, Payne SI, Babich SM. Positive postpartum depression screening practices and subsequent mental health treatment for low-income women in Western countries: A systematic literature review. *Public Health Rev.* 2017;38(1).
- [8] Faisal-Cury A, Tabb KM, Ziebold C, Matijasevich A. The impact of postpartum depression and bonding impairment on child development at 12 to 15 months after delivery. *J Affect Disord Reports [Internet].* 2021;4(February):100125. Available from: <https://doi.org/10.1016/j.jadr.2021.100125>
- [9] Anggarini IA. Factors Relating of Postpartum Depression in Independent Practices of Midwife Misni Herawati, Husniyati and Soraya. *J Kebidanan.* 2019;8(2):94.
- [10] Callender KA, Olson SL, Choe DE, Sameroff AJ. The effects of parental depressive symptoms, appraisals, and physical punishment on later child externalizing behavior. *J Abnorm Child Psychol.* 2012;40(3):471–83.
- [11] Galera-mart R. Mapping the Field in Stress , Anxiety , and Postpartum Intensive Care. 2021;
- [12] Ruiz-Segovia N, Rodriguez-Muñoz MF, Oivares ME, Izquierdo N, Coronado P, Le HN. Healthy moms and babies preventive psychological intervention application: A study protocol. *Int J Environ Res Public Health.* 2021;18(23).
- [13] Ria MB, Budihastuti UR, Sudiyanto A. Risk Factors of Postpartum Depression at Dr. Moewardi Hospital, Surakarta. *J Matern Child Heal.* 2018;03(01):81–90.
- [14] Mohebi S, Parham M, Sharifirad G, Gharlipour Z. Social Support and Self - Care Behavior Study. 2018;(January):1–6.
- [15] Smorti M, Ponti L, Pancetti F. A Comprehensive Analysis of Post-partum Depression Risk Factors: The Role of Socio-Demographic, Individual, Relational, and Delivery Characteristics. *Front Public Heal.* 2019;7(October):1–10.
- [16] Sabiha ZUA, Zia T, Saadat F, Mudassar U, Babu KS, ullah U, et al. Association Between Postpartum Depression and Sleep Quality in Pakistani Women in Peshawar, Pakistan. *Pakistan J Med Heal Sci.* 2022;16(6):783–5.
- [17] Fiala A, Švancara J, Klánová J, Kašpárek T. Sociodemographic and delivery risk factors for developing postpartum depression in a sample of 3233 mothers from the Czech ELSPAC study. *BMC Psychiatry.* 2017;17(1):1–10.
- [18] Organization WH. WHO recommendations on maternal and newborn care for a positive postnatal experience. World Health Organization. 2022. 124–127 p.
- [19] Zuhrotunida Z. Efektifitas Yoga Terhadap Tingkat Kecemasan Ibu Bersalin: Studi Literatur. *J JKFT.* 2020;5(2):75.
- [20] Miraturrofi'ah M. Efektifitas Terapi Komplementer: Tuina Akupoin Dan Facial Loving Touch Dalam Meningkatkan Produksi Asi. *J Asuhan Ibu dan Anak [Internet].* 2022;7(1):21–8. Available from: <http://journal.unisa-bandung.ac.id/index.php/jaia/article/view/311%0Ahttps://journal.unisa-bandung.ac.id/index.php/jaia/article/download/311/164>
- [21] Muhammad B, Khowaja H. Efficacy of Complementary and Alternative Medicine in Treatment of Postpartum Depression: a Situation Analysis. *Glob J Public Heal Med.* 2021;3(2):386–95.
- [22] Liu H. Is There Evidence for Use of Acupuncture in Post-partum Depression? *Univ Ottawa J Med.* 2017;7(2):20–2.
- [23] Gururaja D, Harano K, Toyotake I, Kobayashi H. Effect of yoga on mental health: Comparative study between young and senior subjects in Japan. *Int J Yoga.* 2011;4(1):7.
- [24] Marconcin P, Peralta M, Gouveia ÉR, Ferrari G, Carraça E, Ihle A, et al. Effects of exercise during pregnancy on postpartum depression: A systematic review of meta-analyses. *Biology (Basel).* 2021;10(12):1–8.
- [25] Chao. MT, Wade C, Kronenberg. F, Kalmuss. D, Cushman. LF. Women's Reasons for Complementary and Alternative Medicine Use: Racial/Ethnic Differences. *J Altern Complement Med.* 2006;12(8):719–20.
- [26] Rahyani NKY, Astuti KEW, Somoyani K. Competency Analysis of Midwives in Providing Complementary Services at Bali Provincial Health Centers. 2021;10(11):233–8.
- [27] Nik Yusof Fuad NF, Ching SM, Awg Dzulkarnain DH, Cheong AT, Zakaria ZA. Complementary alternative medicine use among postpartum mothers in a primary care setting: a cross-sectional study in Malaysia. *BMC Complement Med Ther.* 2020;20(1):197.
- [28] Rahyani. NKY, Astuti KEW, Somoyani NK. Jobsheet penerapan asuhan komplementer dalam layanan kebidanan. 1st ed. Nurrahmawati, editor. Yogyakarta: Bintang Semesta Media; 2022. 76 p.
- [29] Sulymbona. N, As'ad. S, Khuzaimah. A, Miskad. UA, Ahmad. M, Bahar B. The effect of acupressure therapy on the improvement of breast milk production in postpartum mothers. *Enfermería Clínica [Internet].* 2020;30(2):615–8. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S1130862119305728>
- [30] Collins. C. Yoga: intuition, preventive medicine, and treatment. *J Obs Gynecol Neonatal Nurs [Internet].* 1998;27(5):563–8. Available from: <https://pubmed.ncbi.nlm.nih.gov/9773368/>
- [31] Nurdewi Sulymbona. Suryani As'ad., Khuzaimah A,

- Miskad UA, Ahmad M, Bahar B. The effect of acupressure therapy on the improvement of breast milk production in postpartum mothers. *Enfermería Clínica* [Internet]. 2020;30(suppl. 2):615–8. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S1130862119305728>
- [32] Azmi NAM, Rahim NAA, Omar EA. Malay traditional practices surrounding the postpartum period: A qualitative case study. *Evid Based Midwifery*. 2019;17(2):40–6.
- [33] Kianpour M, Moshirenia F, Kheirabadi GR, Asghari GR, Dehghani A, Dehghani-Tafti A. The effects of inhalation aromatherapy with rose and lavender at week 38 and postpartum period on postpartum depression in high-risk women referred to selected health centers of Yazd, Iran in 2015. *Iran J Nurs Midwifery Res*. 2018;23(5):395–401.
- [34] Dewi PASK, Suyoga Hindhuyana IP. Pranayama dalam Prenatal Yoga. *J Yoga Dan Kesehat*. 2021;4(2):136.
- [35] Krishnamurti T, Simhan HN, Borrero S. Competing demands in postpartum care: A national survey of U.S. providers' priorities and practice. *BMC Health Serv Res*. 2020;20(1):1–10.
- [36] Sumantri S, Susilowati D, Wati DK. Penurunan Kecemasan Ibu Nifas Menggunakan Totok Wajah Di Fasilitas Pelayanan Persalinan. *J Kebidanan dan Kesehat Tradis*. 2016;1(1):34–9.
- [37] Sunarsih S, Astuti T. Yoga Gymnology of Process Involution Uterus Mom Post-Partum. *J Aisyah J Ilmu Kesehat*. 2021;6(2):259–65.
- [38] Hutchens BF, Kearney J. Risk Factors for Postpartum Depression: An Umbrella Review. *J Midwifery Women's Heal*. 2020;65(1):96–108.
- [39] Kim Y, Dee V. Sociodemographic and Obstetric Factors Related to Symptoms of Postpartum Depression in Hispanic Women in Rural California. *JOGNN - J Obstet Gynecol Neonatal Nurs* [Internet]. 2018;47(1):23–31. Available from: <https://doi.org/10.1016/j.jogn.2017.11.012>
- [40] Saligheh M, Rooney RM, McNamara B, Kane RT. The relationship between postnatal depression, sociodemographic factors, levels of partner support, and levels of physical activity. *Front Psychol*. 2014;5(JUL):1–8.
- [41] Roomruangwong, C. Withayavanitchai S, Maes M. Antenatal and postnatal risk factors of postpartum depression symptoms in Thai women: a case-control study. *Sex Reprod Heal*. 2016;10:25–31.
- [42] Vismara L, Rollè L, Agostini F, Sechi C, Fenaroli V, Molgora S, et al. Perinatal parenting stress, anxiety, and depression outcomes in first-time mothers and fathers: a 3- to 6-months postpartum follow-up study. *Front Psychol*. 2016;7(938).
- [43] Mou TJ, Afroz KA, Haq MA, Jahan D, Ahmad R, Islam T, et al. The Effect of Socio-Demographic Factors in Health-Seeking Behaviors among Bangladeshi Residents during the First Wave of COVID-19. *Healthc*. 2022;10(3):1–18.
- [44] Gobbens RJJ, Remmen R. The effects of sociodemographic factors on quality of life among people aged 50 years or older are not unequivocal: Comparing SF-12, WHOQOL-BREF, and WHOQOL-OLD. *Clin Interv Aging*. 2019;14:231–9.
- [45] Adeponle A, Groleau D, Kola L, Kirmayer LJ, Gureje O. Perinatal depression in Nigeria: Perspectives of women, family caregivers and health care providers. *Int J Ment Health Syst*. 2017;11(1):1–13.
- [46] Payne JL, Maguire J. Pathophysiological mechanisms implicated in postpartum depression. *Front Neuroendocrinol*. 2019;52:165–80.
- [47] Vincenzo Zanardo, Francesca Volpe, Federico de Luca, Lara Giliberti, Arturo Giustardi, Matteo Parotto GS & Gino S. Maternity blues: a risk factor for anhedonia, anxiety, and depression components of Edinburgh Postnatal Depression Scale. *J Matern Neonatal Med* [Internet]. 2020;33(23). Available from: <https://www.tandfonline.com/doi/full/10.1080/14767058.2019.1593363>
- [48] Thinh N. Nguyen, Deb Faulkner, Suzanna Allen, Yvonne L. Hauck JF, Rock D, Rampono J. Managing pregnant women with serious mental illness: using the Edinburgh Postnatal Depression Scale as a marker of anxiety and depressive symptoms. *Aust N Z J Psychiatry* [Internet]. 2010;44(11). Available from: <https://www.tandfonline.com/doi/full/10.3109/00048674.2010.503185>
- [49] Mohammad A, Thakur P, Kumar R, Kaur S, Saini R V., Saini AK. Biological markers for the effects of yoga as a complementary and alternative medicine. *J Complement Integr Med*. 2019;16(1).
- [50] Bales M, Pambrun E, Maguet C, Waerden J Van Der, Glangeaud-freudenthal N, Charles M, et al. Pathways between Risk / Protective Factors and Maternal Postnatal Depressive Symptoms: The ELFE Cohort. 2023;
- [51] Satoh A, Kitamiya C, Kudoh H, Watanabe M, Menzawa K, Sasaki H. Factors associated with late post-partum depression in Japan. *Jpn J Nurs Sci*. 2009;6(1).
- [52] Mabetha K, Soepnel L, Klingberg S, Mabena G, Motlathledi M, Norris SA, et al. Social Support during pregnancy: A phenomenological exploration of young women's experiences of support networks on pregnancy care and wellbeing in Soweto, South Africa. *medRxiv* [Internet]. 2022;2(Cd):2022.04.03.22273162. Available from: <https://www.medrxiv.org/content/10.1101/2022.04.03.22273162v1%0Ahttps://www.medrxiv.org/content/10.1101/2022.04.03.22273162v1.abstract>
- [53] Battulga B, Benjamin MR, Chen H, Bat-Enkh E. The Impact of Social Support and Pregnancy on Subjective Well-Being: A Systematic Review. *Front Psychol*. 2021;12(September).
- [54] Susanti N, Susanti N, Lismidiati W, Studi Ilmu Keperawatan Fakultas Kedokteran P, Masyarakat K, Keperawatan Universitas Gadjah Mada dan, et al. Description of Husband Support towards Her Wife during Labor at the Stage of Adolescence. 2017;184(3):184–92.
- [55] Renbarger KM, Place JM, Schreiner M. The Influence of Four Constructs of Social Support on Pregnancy Experiences in Group Prenatal Care. *Women's Heal Reports*. 2021;2(1):154–62.
- [56] Sharma R. A Review on Therapeutic Intervention of Yoga and Ayurveda in Post-Partum Depression. *Open*

J Obstet Gynecol. 2022;12(03):201–8.

- [57] Gong H, Ni C, Shen X, Wu T, Jiang C. Yoga for prenatal depression: A systematic review and meta-analysis. *BMC Psychiatry*. 2015;15(1):1–8.
- [58] Okamoto R, Manabe T, Mizukami K. Effects of facial muscles exercise on mental health: A systematic review. *Int J Environ Res Public Health*. 2021;18(22).
- [59] Anggraeni NPDA, Herawati L, Widyawati MN. The Effectiveness of postpartum yoga on uterine involution among postpartum women in Indonesia. *Int J Nurs Heal Serv*. 2019;2(3):124–34.
- [60] Ho M, Li TC, Su SY. The association between traditional Chinese dietary and herbal therapies and uterine involution in postpartum women. *Evidence-based Complement Altern Med*. 2011;2011.
- [61] Women's Use of Complementary and Alternative Medicine in Pregnancy: narratives of transformation. :1–19.