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Meta-analysis
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Effect of Home Visit by Community Health Cadre on Postpartum Depression: Meta-Analysis

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ABSTRACT

Background: Postpartum depression is one of the most common mental disorders and complications of childbirth. Postpartum depression is associated with lower rates of initiation of breastfeeding, poorer mother-infant bonding, and an increase in infants exhibiting developmental delays. Efforts to prevent and treat postpartum depression can be done through home visits by community health cadres. This study aims to estimate and analyze the effect of home visits by community health cadres in reducing postpartum depression.
Subjects and Method: This study was a systematic review and meta-analysis of the results of previous relevant research conducted using the PRISMA guidelines. The population included pregnant women and postpartum women, the intervention was given in the form of home visits by community health cadres with comparisons without home visits, and findings related to postpartum depression. Search for articles in this study through the PubMed, ScienceDirect, Scopus, and Google Scholar databases which were published between 2013-2023. The keywords used in the article search process were "home visit" AND ("community health worker" OR "lay health worker" OR "paraprofessional") AND ("postpartum depression" OR "maternal depression"). The inclusion criteria for the articles included were full text articles and full papers with an RCT research design and including the Mean SD value. Findings from primary research articles were analyzed using the Review Manager 5.3 application.
Results: The primary research included consisted of 9 articles from Tanzania, the United Kingdom, India, South Africa, the United States and Pakistan. The results of this meta-analysis showed that pregnant women and postpartum women who received home visits by community health cadres had an average postpartum depression rate of 0.27 units lower than mothers who did not receive home visits by community health cadres (SMD = -0.27; CI 95% = -0.52 to -0.03; p = 0.030).
Conclusion: Home visits by community health cadres can reduce postpartum depression.

Keywords: Home visits by community health cadres can reduce postpartum depression.

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BACKGROUND

Postpartum depression is one of the most common mental disorders and complications of childbirth. Postpartum depression can affect a mother's ability to bond with and care for her baby and interfere with daily activities. Symptoms of postpartum depression are often in the form of sleep disturbances related to baby care, anxiety, irritability, and feelings of being overwhelmed (Stewart and Vigod, 2016).

There are 1 in 8 mothers reporting depressive symptoms after giving birth and 1 in 5 mothers did not get an assessment of depression during prenatal visits. More than 50% of pregnant women with depression do not get treatment. An average of 13% of mothers have symptoms of depression after giving birth to their baby (Centers for Disease Control and Prevention, 2020).

Postpartum depression is associated with lower breastfeeding initiation rates, poorer mother-infant bonding, and an increase in infants showing developmental delays. Postpartum depression also has a negative impact on mother's health such as causing sleeping and eating problems, as well as changes in mother's behavior towards her baby (Bauman et al., 2020).

Recognizing the strong relationship between maternal mental welfare and findings on child development, it is important to prevent and treat depressive symptoms. Develop working relationships and referral pathways with primary care, midwifery, home visits and mental health teams, necessary to enable women with one or more risk factors for postpartum depression to easily access services (Kleine, 2019).

The United States Preventive Services Task Force (USPSTF) has now recommended that all adults be screened for depression, including pregnant and postpartum women. In 2019, the USPSTF released a recommendation statement on interventions that can be taken to help prevent the development of perinatal depression. Prevention is accomplished by determining ways to improve the delivery of interventions to prevent perinatal depression from occurring, such as developing clinical pathways, training health care providers, and increasing access to behavioral health specialists. It is recommended that medical personnel provide or refer pregnant women and postpartum women who are at high risk of experiencing perinatal depression for counseling interventions (United States Preventive Services Task Force, 2019).

One of the efforts to prevent and treat postpartum depression can be done through home visits to provide counseling and education, social support and increase access to health care providers. Home visiting programs have been used as a means of intervention specifically among vulnerable and at-risk populations including: chronically ill, poor, rural, or home-dwelling individuals. Health workers conducting home visits have evolved to include the role of community health cadres. Community health cadres are used widely in a variety of settings and are focused on different patient populations, including in the context of home visit programs providing care for pregnant women (Menser et al., 2020). Home visits can vary based on factors such as target audience, prioritized outcomes, and the duration and frequency of home visits made (National Home Visiting Resource Center, 2018).

Community health cadres are health care providers who live in the communities they serve and receive lower levels of formal education and training than professional health workers such as doctors, midwives and nurses (World Health Organization, 2020). The American Public Health Association defines community health workers as frontline public health workers who are trusted and have a very close understanding of the community they serve. A community

health cadre also builds individual and community capacity by increasing health knowledge and self-sufficiency through various activities such as outreach, community education, informal counselling, social support and advocacy (Rifkin, 2016).

Community health workers serve as an important bridge between communities and the health system in various capacities in the United States. Community health cadres have proven effective roles in the provision of culturally appropriate health care and have the potential to become important members of interdisciplinary health care teams. Internationally, there is literature supporting home visit interventions by community health cadres for mothers and babies which have proven improvements such as higher breastfeeding rates, reduced perinatal maternal depressive symptoms and reduced infant mortality rates (Shahet al., 2014).

Previous studies have been conducted to determine the effect of home visits by community health cadres on postpartum depression, including by Rotheram-Borus et al. (2015) who conducted research in Cape Town, South Africa by providing prenatal and postnatal home visit interventions by community health workers (CHW) focusing on general maternal and child health, HIV/ tuberculosis, alcohol use, and nutrition. In conjunction with standard care, mothers in the intervention group reported significantly fewer depressive symptoms and a more positive quality of life at 36 months.

Kieffer et al. (2013) conducted research to examine the effectiveness of culturally and linguistically designed social support-based programs, in the form of healthy lifestyle interventions provided by trained community health workers (CHW) in reducing depressive symptoms among pregnant and postpartum women in Latina, United States of America. The intervention consisted of 14 curriculum sessions conducted weekly in Spanish during two home visits and nine group meetings during pregnancy; as well as two home visits and one group meeting conducted between 2 and 6 weeks postpartum. This study provides evidence that planned and culturally adapted healthy lifestyle interventions by community health workers can reduce depressive symptoms in pregnant women, Latin Spanish speaking.

A comprehensive study with meta-analysis is needed to estimate and analyze the effect of home visits by community health workers on postpartum depression based on various similar studies that have been conducted.

SUBJECTS AND METHOD

1. Design Study

This study is a systematic review and meta-analysis of the results of previous relevant research conducted using the PRISMA guidelines. Search for articles in this study was done through the PubMed, ScienceDirect, Scopus, and Google Scholar databases which were published between 2013-2023. The keywords used in the article search process were “home visit” AND (“community health worker” OR “lay health worker” OR “para-professional”) AND (“postpartum depression” OR “maternal depression”).

2. Step of Meta-analysis

There are five steps of the meta-analysis which are described as follows:

1) Formulate research problems using the PICO model (Population: pregnant women and postpartum women, Intervention: home visits by community health cadres, Comparison: without home visits, Outcome: postpartum depression).
2) Browse primary research articles from electronic databases such as: PubMed, ScienceDirect, Google Scholar, and Scopus.

3) Assess the quality of the primary research articles that will be included using Critical Appraisal.
4) Combine results and analyze data using the Review Manager 5.3 application.
5) Put the findings in context by interpreting and drawing conclusions.

3. Inclusion Criteria

The inclusion criteria for articles that can be included are full text articles and full papers with an RCT research design and including the Mean SD value. The research subjects included pregnant and postpartum women, the intervention was in the form of home visits by community health cadres, and the outcome was postpartum depression.

4. Exclusion Criteria

Exclusion criteria for articles in this study were articles published other than in English and Indonesian, articles published before 2013.

5. Operational Definition of Variables

Home visit was a method of providing health services at home by providing specific opportunities for intervention. These home visits were carried out by community health cadres. Categorical measurement scale.

Postpartum Depression was depressive symptoms that arise due to physical, emotional, and behavioral changes in the mother after giving birth that last up to 2 weeks or more. Continuous measuring scale.

6. Study Instruments

The research instrument was relevant articles published in the database regarding the effect of home visits by community health cadres on postpartum depression. This study was conducted according to the PRISMA flowchart guidelines and the quality assessment of articles using the Critical Appraisal Skills Program Randomized Controlled Trial Standard Checklist.

7. Data Analysis

The data in this study were analyzed based on variations between studies with fixed effects and random effects models using Review Manager 5.3. Review Manager 5.3 is used to present the results of the overall mean difference, describing the 95% confidence interval (CI) using model effects and data heterogeneity (I^2).

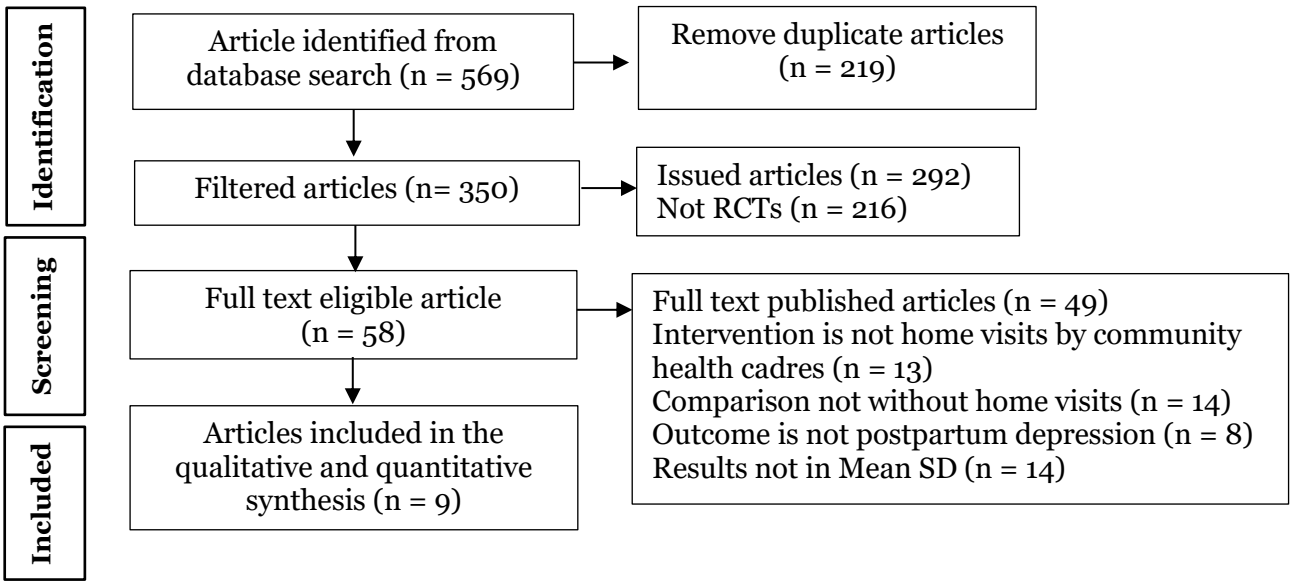

Figure 1. PRISMA 2020 flow diagram of the effect of home visit by community health cadre on postpartum depression

RESULTS

The search for articles to be included in this study was carried out according to the PRISMA flowchart in (Figure 1). Identification, screening and feasibility have been considered in determining the selection of primary research articles. In the final results of the review process, a number of 9 articles were found that met the qualitative and quantitative requirements to be included in the meta-analysis of the effect of home visits by community health cadres on postpartum depression.

The primary study on the effect of home visits by community health cadres on postpartum depression consisted of 9 articles from 4 continents (Figure 2).

A summary of the 9 primary research articles on home visits by community health cadres on postpartum depression included in this study is described in Table 1.

Figure 2. Map of the study area on the effect of home visit by community health cadre on postpartum depression

Table 1. Description of the primary research included in the meta-analysis

Author (Year)	Location	P (Population)	I (Intervention)	C (Comparison)	O (Outcome)
Bliznashka et al. (2021)	Tanzania, Africa	Pregnant women and mothers with children aged<12 months	Home visits by community health workers (CHW)	Available health services	Postpartum depression
Cooper et al. (2015)	Reading, Berkshire	Pregnant women to postpartum	Home visits by health visitor researcher	Routine primary care	Postpartum depression, maternal sensitivity in mother-infant involvement
Fuhr et al.(2019)	Goa, India	Pregnant women to postpartum	Home visits by ingenue women and standard health care	Standard health care	Postpartum depression, exclusive breastfeeding

Author (Year)	Location	P (Population)	I (Intervention)	C (Comparison)	O (Outcome)
Lund et al. (2020)	Khayelitsha, South Africa	Pregnant women to postpartum	Home visits by community health workers (CHW)	Routine antenatal health care and telephone calls	Postpartum depression
Popo et al. (2017)	West Midlands, England	Postpartum mother	Home visits by lay Pregnancy Outreach Workers (POW) officers and standard obstetric care	Standard obstetric care	Postpartum depression, mother-infant bonding, self-efficacy
Rotheram-Fuller et al. (2017)	Los Angeles, United States	Pregnant women to postpartum	Home visits by Mentor Mothers (MM) and standard clinic care	Standard clinical care	Maternal BW, breastfeeding, and postpartum depression
Samankasikorn et al. (2016)	Mid Atlantic State	Pregnant women to postpartum	Home visits by community health workers (CHW)	Phone support	Postpartum depression
Sikander et al. (2019)	Rawalpindi, Pakistan	Pregnant women to postpartum	Home visits by local volunteers and standard health care	Standard health care	Postpartum depression, exclusive breastfeeding
Tomlinson et al. (2016)	West Midlands, England	Pregnant women to postpartum	Home visit by CHW and standard clinic care	Standard clinical care	Postpartum depression, alcohol use, HIV prevention

Table 2. The mean and SD values in the intervention and control groups of the primary study included in the meta-analysis

Author (Year)	Sample		Intervention		Control	
	Intervention	Control	Mean	SD	Mean	SD
Bliznashka et al. (2021)	185	174	1.04	0.10	1.34	0.35
Cooper et al. (2015)	73	74	5.90	4.45	6.10	4.35
Fuhr et al. (2019)	122	129	3.47	4.49	4.48	5.11
Lund et al. (2020)	145	173	9.50	4.32	10.80	5.07
Popo et al. (2017)	61	51	6.80	4.90	5.60	4.60
Rotheram-Fuller et al. (2017)	99	104	3.90	4.10	4.20	4.90
Samankasikorn et al. (2016)	44	31	3.86	4.52	4.48	3.95
Sikander et al. (2019)	227	226	6.02	5.92	6.81	6.22
Tomlinson et al. (2016)	502	456	6.10	7.34	6.90	7.90

Assessment of the quality of the 9 primary research articles included in this study was carried out using the Critical Appraisal Skills Program Randomized Controlled Trial Standard Checklist (Table 3).

Table 3. Results of quality assessment of research articles

Primary Research	Criteria											Total
	1	2	3	4	5	6	7	8	9	10	11	
Bliznashka et al. (2021)	2	2	2	1	2	2	2	2	2	2	2	21
Cooper et al. (2015)	2	2	2	2	2	2	2	2	2	0	2	20
Fuhr et al. (2019)	2	2	2	2	2	2	2	2	2	2	2	22
Lund et al. (2020)	2	2	2	2	2	2	2	2	2	0	2	20
Popo et al. (2017)	2	2	2	2	2	2	2	2	2	2	2	22
Rotheram-Fuller et al. (2017)	2	2	2	1	2	2	2	2	2	2	2	21
Samankasikorn et al. (2016)	2	2	2	1	2	2	2	2	2	2	2	21
Sikander et al. (2019)	2	2	2	2	2	2	2	2	2	2	2	22
Tomlinson et al. (2016)	2	2	2	1	2	2	2	2	2	2	2	21

Description: 2= Yes, 1= Not explained, 0= No

Table 3 shows the results of the quality assessment of research articles consisting of 11 questions as follows:

1) Does the research answer a clearly focused research question?
2) Is the intervention given to participants random?
3) Are all participants in the study accounted for in the conclusions?
4) Are the participants, researchers, and those who assessed or analyzed blinded?
5) Are the study groups similar at the beginning of the study?
6) Regardless of the intervention studied, is each study group treated the same?
7) Are the effects of the intervention reported comprehensively?
8) Is the precision of the reported effect of the intervention or treatment estimated?
9) Do the benefits of the intervention outweigh the costs and losses?
10) Can the results be applied to local populations or practice contexts?
11) Do research interventions provide greater value to people in care than existing interventions?

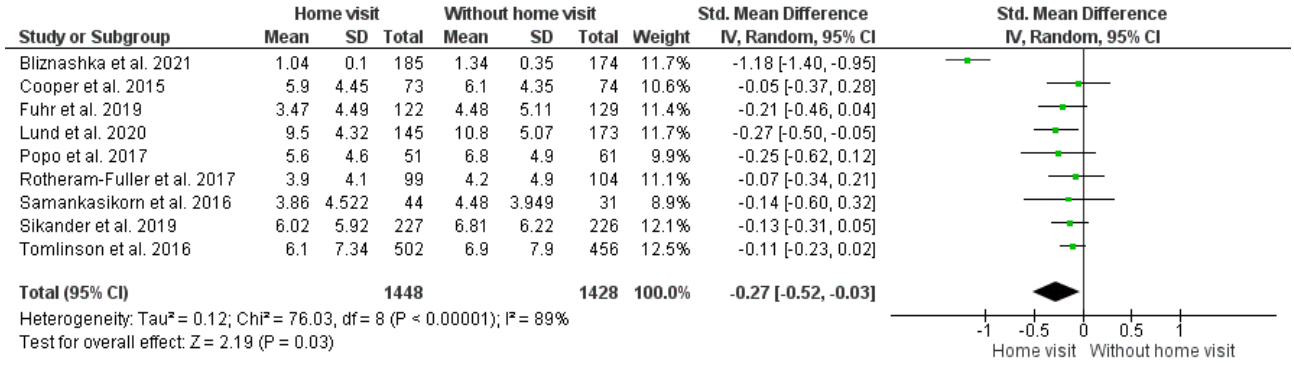

Figure 3. Forest plot meta-analysis of the effects of home visits by community health cadres on postpartum depression

The forest plot in Figure 3 shows that there was a statistically significant effect of home visits by community health cadres on postpartum depression. Pregnant women and postpartum women who received home visits by community health cadres had an average rate of postpartum depression by 0.27 units lower than mothers who did not receive home visits by community health cadres (SMD = -0.27; 95% CI = -0.52 to -0.03 ;p = 0.030). The forest plot also showed high heterogeneity of effect estimates between studies (I^2 = 89%; p <0.001), thus the calculation of the average effect estimate was carried out using the random effect model approach.

The funnel plot in Figure 4 shows that the distribution of influence between studies lies more to the right of the average vertical line. The funnel plot showed publication bias, the distribution was opposite to the location of the diamond (♦) in the forest plot in Figure 3 which was located to the left of the vertical line of the null hypothesis, so the publication bias tend to reduce the estimate of the true effect (underestimate).

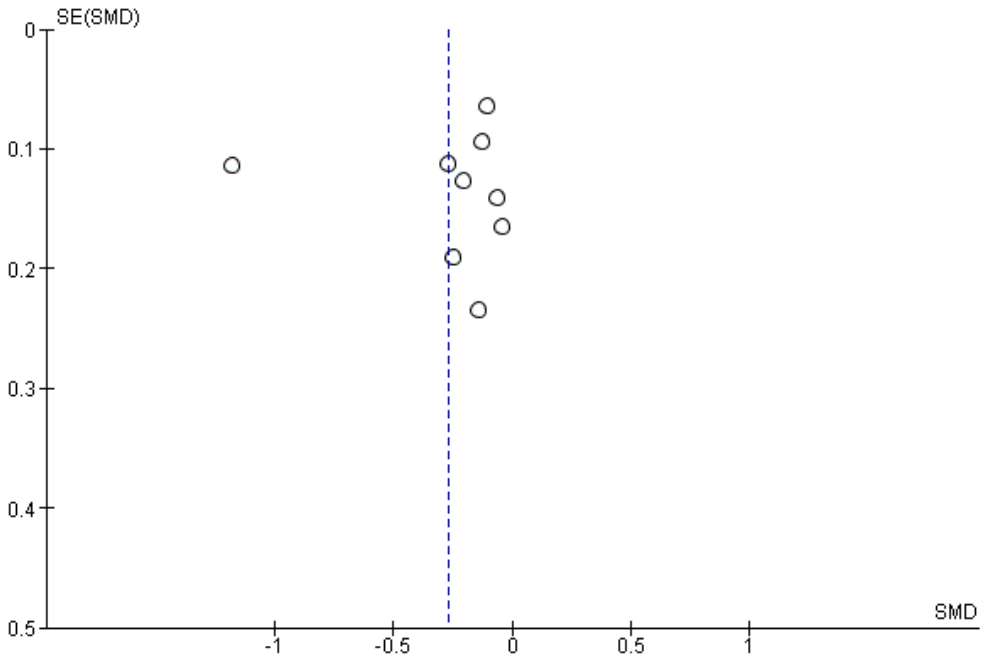

Figure 4. Funnel plot meta-analysis of the effects of home visits by community health cadres on postpartum depression

DISCUSSION

This study is a systematic review and meta-analysis that aims to increase the generalizability of the findings and draw conclusions based on evidence from various relevant research results on the effect of home visits by community health cadres on postpartum depression. Relevant primary research included in this study consisted of 9 articles.

The results of this meta-analysis indicate that there is a statistically significant effect of home visits by community health cadres on postpartum depression. Pregnant women and postpartum women who received home visits by community health cadres had an average rate of postpartum depression by 0.27 units lower than mothers who did not receive home visits by community health cadres (SMD= -0.27; 95% CI = -0.52

to -0.03 ;p= 0.030). In accordance with research conducted by Lutenbacher et al. (2022) Maternal Infant Health Outreach Worker (MIHOW) is a program of home visits by community health workers (CHW) to improve health outcome findings in underserved communities. Community Health Worker (CHW) have been well received in Hispanic groups, likely driven by promoters' long history of working to address a variety of health issues. This randomized clinical trial study evaluated the impact of the application of MIHOW administered by CHW on maternal and infant outcome findings up to 15 months postpartum. The hypothesis of this study was that the outcomes would be better in Hispanic women who received MIHOW compared to a similar group of women who were eligible for MIHOW but only received Minimal Education Intervention (MEI). This study also expands on previous research testing the efficacy of MIHOW in Hispanic families using criteria established by federal guidelines. Mothers living in Middle Tennessee were recruited throughout pregnancy (≤ 26 weeks) and continued for up to 15 months postpartum. A positive and statistically significant effect of MIHOW (p <0.010) was observed on duration of breastfeeding, safe sleep practices, stress levels, depressive symptoms, emotional support, referral follow-up, parental trust, and infant stimulation at home. Findings in the study this provides strong evidence of the effectiveness of MIHOW to improve health outcome findings in this sample. The involvement of trained CHW makes programs like MIHOW a viable option for providing services to immigrant and underserved families.

Maternal depression can have negative consequences for both mothers and their children. Accordingly, maternal depression during pregnancy and postpartum is associated with unfavorable outcomes for children's physical and psychosocial development in both low-, middle-, and high-income country environments. Therefore, programs targeting the first 1,000 days must address maternal depression, particularly the common but often neglected problem of prenatal depression and the conditions that can lead to it (Rotheram-Borus et al., 2023).

Home visits not only support health outcome findings but also enhance mother-infant interaction during pregnancy and after delivery. Quality childcare is critical for both mother and child in dealing with their health and well-being challenges. Home visiting interventions in low- and middle-income countries have the potential to support families and sustain positive development in children (Christodoulou et al., 2019).

Research by Ruyak et al. (2017) showed that there are important findings from the results of studies that have been conducted which highlight the large effect that home visits during pregnancy may benefit mothers who are at risk of developing postpartum depressive symptoms. This is because participants in this study who were most likely to receive home visits had a greater cumulative stress burden, and participants who received these home visits were nearly 40% less likely to experience symptoms of postpartum depression. Therefore, home visits are an effective intervention to prevent symptoms of postpartum depression by providing support and education for mothers and families.

Research by Katzen et al. (2021) demonstrated that home visits by community health workers (CHW) in rural South Africa had a limited effect on maternal and child health outcome findings at 12 months of the study. It is important to note that although they are limited, home visits have positive effects on mothers with depressive symptoms as well as on child development. Community Health Worker (CHW) have an

important role to play in providing health care, but it is very important to adapt the context when designing and implementing such programs, especially in rural areas. This study also shows that CHW, in collaboration with local government clinics and hospitals, is effective in building trust and facilitating access to government facilities to mothers in their caseload.

Based on the results of the analysis of the 9 primary research articles that were included, it showed that there was high heterogeneity between the primary studies (I^2 = 89%; p<0.001) therefore, a random effect model approach was used. High heterogeneity is based on the variation or diversity between populations which can be seen from the different sample sizes between the intervention group and the control group, the frequency and duration of home visits made, as well as the variations in the home visit material provided.

This meta-analysis concluded that pregnant and postpartum women who received home visits by community health cadres had an average rate of postpartum depression by 0.27 units lower than mothers who did not receive home visits by community health cadres (SMD = -0.27; 95% CI = -0.52 to -0.03; p = 0.030). The distribution of influence between studies indicated publication bias which minimized the true effect (underestimate).

AUTHORS CONTRIBUTION

Annisa Istighfari Hernanda R as the main researcher who did the topic selection, search and data collection as well as the analysis process in this study. Eti Poncorini Pamungkasari and Hanung Prasetya as observers in analyzing research data and preparing for publication.

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This study was self-funded.

CONFLICT OF INTEREST

There was no conflict of interest in this study.

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REFERENCES

Bauman BL, Ko JY, Cox S, D'angelo DV, Warner L, Folger S, Tevendale HD, et al. (2020). Vital signs: postpartum depressive symptoms and provider discussions about perinatal depression — United States, 2018, MMWR, 69(19): 575–581. doi:http://dx.doi.org/10.15585/mmwr.mm6919a2.

Bliznashka L, Yousafzai AK, Asheri G, Masanja H, Sudfeld CR (2021). Effects of a community health worker delivered intervention on maternal depressive symptoms in rural Tanzania, Health Policy Plan, 36(4): 473–483. doi:10.1093/heapol/czaa170.

Centers for Disease Control and Prevention (2020). Identifying maternal depression. Atlanta, GA. Available at: https://www.cdc.gov/reproductivehealth/vital-signs/identifying-maternal-depression/index.html

Christodoulou J, Rotheram-Borus MJ, Bradley AK, Tomlinson M (2019). Home visiting and antenatal depression affect the quality of mother & child interactions in South Africa', J Am Acad Child Adolesc Psychiatry, 58(12): 1165–1174. doi:10.1016/j.jaac.2019.03.016.

Cooper PJ, De Pascalis L, Woolgar M, Romaniuk H, Murray L (2015). Attempting to prevent postnatal depression by targeting the mother-infant relationship: a randomised controlled trial, Prim Health Care Res Dev, 16(4): 383–397. doi:10.1017/S1463423614000401.

Fuhr DC, Weobong B, Lazarus A, Vanobberghen F, Weiss HA, Singla DR, Tabana H, et al. (2019) Delivering the Thinking Healthy Programme for perinatal depression through peers: an individually randomised controlled trial in India, Lancet Psychiatry, 6(2): 115–127.doi:10.1016/S2215-0366(18)30466-8.

Katzen LS, le Roux KW, Almirol E, Rezvan PH, le Roux I, Mbewu N, Dippenaar E, et al. (2021) Community health worker home visiting in deeply rural South Africa: 12-month outcomes, Glob Public Health, 16(11): 1757–1770. doi: 10.1080/17441692.2020.1833960

Kieffer EC, Caldwell CH, Welmerink DB, Welch KB, Sinco BR, Guzmán JR. (2013). Effect of the healthy MOMs lifestyle intervention on reducing depressive symptoms among pregnant Latinas, Am J Community Psychol, 51(1–2): 76–89. doi:10.1007/s10464-012-9523-9.

Kleine I (2019). Interventions to prevent perinatal depression: US Preventive Services Task Force recommendation statement, Arch Dis Child Educ Pract Ed, 1–2. doi:10.1136/archdischild-2019-317433.

Lund C, Schneider M, Garman EC, Davies T, Munodawafa M, Honikman S, Bhana A, et al. (2020). Task-sharing of psychological treatment for antenatal depression in Khayelitsha, South Africa: effects on antenatal and postnatal outcomes in an individual randomised controlled trial, Behav Res Ther, 130, 1–10. doi:10.1016/j.brat.2019.103466.

Lutenbacher M, Elkins T, Dietrich MS. (2022). Using community health workers to improve health outcomes in a sample of hispanic women and their infants: findings from a randomized controlled trial, Hisp Health Care Int, 1–13. doi:10.1177/15404153221107680.

Menser T, Swoboda C, Sieck C, Hefner J, Huerta T, McAlearney AS (2020). A Community Health Worker home visit program: Facilitators and barriers of program implementation, J Health Care Poor Underserved, 31(1): 370–381. doi: https://doi.org/10.1353/hpu.2020.0028.

National Home Visiting Resource Center (2018) Home visiting primer, in. Arlington, VA: James Bell Associates and the Urban Institute. Available at: https://nhvrc.org/wp-content/uploads/NHVRC_Primer_FINAL-1.pdf.

Popo E, Kenyon S, Dann SA, MacArthur C, Blissett J (2017). Effects of lay support for pregnant women with social risk factors on infant development and maternal psychological health at 12 months postpartum, PLoS ONE, 12(8): 1–14. doi: 10.1371/journal.pone.0182544.

Rifkin SB (2016). Community health workers, international encyclopedia of public health. Elsevier Inc. doi: 10.1016/B978-0-12-803678-5.00083-7.

Rotheram-Borus MJ, Tomlinson M, Roux IL, Stein JA (2015). Alcohol use, partner violence, and depression: A cluster randomized controlled trial among urban South African mothers over 3 years, Am J Prev Med, 49(5): 715–725. doi:10.1016/j.amepre.2015.05.004.

Rotheram-Borus MJ, Tomlinson M, Worthman CM, Norwood P, Le Roux I,

O'Connor MJ (2023). Maternal depression, alcohol use, and transient effects of perinatal paraprofessional home visiting in South Africa: eight-year follow up of a cluster randomized controlled trial, Soc. Sci. Med., 324. doi: 10.1016/j.socscimed.2023.115853.

Rotheram-Fuller EJ, Swendeman D, Becker KD, Daleiden E, Chorpita B, Harris DM, Mercer NT, et al. (2017). Replicating evidence-based practices with flexibility for perinatal home visiting by paraprofessionals, Matern Child Health J, 21(12): 2209–2218. doi: 10.-1007/s10995-017-2342-8.

Ruyak SL, Flores-Montoya A, Boursaw B. (2017). Antepartum services and symptoms of postpartum depression in at-risk women, J Obstet Gynecol Neonatal Nurs, 46(5): 696–708. doi: 10.10-16/j.jogn.2017.07.006.

Samankasikorn W, Pierce B, St Ivany A, Gwon SH, Schminkey D, Bullock L. (2016). Effect of home visiting with pregnant teens on maternal health, MCN Am. J. Matern. Child Nurs., 41(3): 162–167. doi: 10.1097/NMC.00-00000000000235.

Shah MK, Heisler M, Davis MM (2014). Community Health Workers and the patient protection and affordable care act: An opportunity for a research, advocacy, and policy agenda, J Health Care Poor Underserved, 25(1): 17–24. doi:https://doi.org/10.1353/hpu.2014.0019.

Sikander S, Ahmad I, Atif N, Zaidi A, Vanobberghen F, Weiss HA, Nisar A, et al. (2019). Delivering the Thinking Healthy Programme for perinatal depression through volunteer peers: a cluster randomised controlled trial in Pakistan, Lancet Psychiatry, 6(2): 128–139. doi: 10.1016/S2215-0366-(18)30467-X.

Stewart DE, Vigod S. (2016) Postpartum depression, N Engl J Med, 2177–2186. doi:10.1056/NEJMcp1607649.

Tomlinson M, Rotheram-Borus MJ, le Roux IM, Youssef M, Nelson SH, Scheffler A, Weiss RE, et al. (2016). Thirty-six-month outcomes of a generalist paraprofessional perinatal home visiting intervention in South Africa on maternal health and child health and development, Prev Sci, 17(8): 937–948. doi:10.1007/s11121-016-0676-x.

United States Preventive Services Task Force (2019) High-priority evidence gaps for clinical preventive services: Ninth annual report to congress.

World Health Organization (2020) What do we know about Community Health Workers? a systematic review of existing reviews, in Human Resources for Health Observer Series no 19.