

SYSTEMATIC REVIEW

Scoping Review of Midwives' Workload: A Comprehensive Overview

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ABSTRACT

Introduction: Midwives play a vital role in maternal and newborn care, yet their workload is a multifaceted and dynamic aspect of their profession. Understanding the factors contributing to midwives' workload is essential for optimizing their performance, ensuring quality care, and promoting overall well-being. This study aims to provide a comprehensive overview of the existing literature on midwives' workload. **Materials and methods:** A systematic search of databases, including Pubmed, Willey, Proquest, and ScienceDirect, was conducted to identify relevant studies published from 2013 to 2023 using keywords related to midwives, workload, staffing, job satisfaction, and burnout. **Results:** Of the 184 publications identified, 15 were included in this review. Most of these reports synthesize key findings related to midwives' workload, highlighting various dimensions, including caseload, patient acuity, staffing levels, work environment, and job satisfaction. Factors contributing to increased workload among midwives encompass the rising complexity of maternal and neonatal cases, inadequate staffing, long working hours, and organizational challenges. Furthermore, excessive workload has been associated to burnout, lower job satisfaction, and potentially negative consequences for both midwives and the women they care for. **Conclusion:** Further research and policy initiatives are required to address workload-related challenges, promote midwife well-being, and ultimately enhance the quality of care provided to pregnant women and newborns.

Malaysian Journal of Medicine and Health Sciences (2024) 20(SUPP9): 221-230. doi:10.47836/mjmhs20.s9.36

Keywords: Midwives, Workload, Staffing, Job satisfaction, Burnout

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INTRODUCTION

Midwifery care is a wide spectrum of care that encompasses providing essential support to expectant mothers and their infants during pregnancy, childbirth, and the postpartum period [1]. Midwives have the best possibility of increasing mother and infant health [2]. An enormous number of women are continuously in touch with midwives in midwifery care services, making early detection of mothers with particular needs easier [3]. Moreover, midwifery accompaniment has been shown to have a positive impact on expectant mothers, as evidenced by 68.42% of postpartum mothers who were delighted to join a pregnancy mentoring program, 94.4% of respondents who benefited, and 82% of

midwives who said they had the opportunity to improve their communication skills [4].

Despite the critical role of midwives in maternal and newborn healthcare, their dedication and expertise are met with challenges in their daily practice [5]. In recent years, the demands placed on midwives have increased due to a growing global awareness of the importance of skilled maternal care, the pursuit of better maternal and neonatal outcomes, and the recognition of midwifery as a key component of healthcare systems [6]. It is expected that the presence and behavior of midwives should suit the woman's expectations and fulfill her needs [5]. However, the ways that healthcare is provided, directed, or perceived are shaped by myriad factors such as changes in healthcare policies, advancements in technology, shifting demographics, high workload, low support from colleagues, challenging clinical situations, low clinical autonomy, being on-call, and poor work-life balance [7]. Indeed, low support from colleagues

contributes to poor emotional well-being, workload, burnout, job satisfaction, and workforce retention among midwives, regardless of the model of care they work in [5, 7].

Understanding the intricacies of midwives' workload is essential for improving the quality of maternity care and optimizing the utilization of midwifery services [2]. However, there is limited evidence that provides a comprehensive overview of midwives' workload, thus, this study filled in the gap by examining the existing body of knowledge on midwives' workload to explore the various facets of midwifery practice, encompassing clinical care, education, research, and advocacy, as well as the factors that influence workload, including caseload, staffing levels, education, and policies. Given the key role of maternity care relies on midwifery care, this study sheds light on representing various dimensions of midwives' professional responsibilities and the factors affecting their daily practice. This study's objectives are to serve as a foundation for future research and policy development, ultimately working towards the goal of enhancing maternal and newborn healthcare by optimizing the contributions of midwives.

MATERIALS AND METHODS

The scoping review adhered to the PRISMA-ScR guidelines, an ideal method for assessing the scope of literature on a specific theme and offering a comprehensive overview for researchers (fig. 1) [8]. A scoping review was undertaken to systematically map the literature, explore information about research activities related to specific topics, and synthesize research evidence [8].

This review used modifications to the original framework of a scoping review to guide this research, which includes six steps [8]:

Search Strategy

The researchers developed the focus review and search strategy through the PEOs framework (Population, Exposure, Outcome, study design) review (Table I).

P (Population): Midwives

E (Exposure): Key dimensions and contributing factors to midwives' workload.

O (Outcome): job satisfaction, burnout, and patient outcomes.

Study design: All articles related to job of midwives (quantitative, qualitative, mixed method)

Based on the framework above, the research question was: What are the key dimensions and contributing factors to midwives' workload, and how do they impact job satisfaction, burnout, and patient outcomes?

Identification of Relevant Articles

Researchers utilized databases like Pubmed, Willey Online, Proquest, and ScienceDirect, searching for articles with keywords such as "Midwives," "Workload," "Staffing levels," "Job satisfaction," and "Burnout." Inclusion criteria encompassed original, full-text articles explaining key dimensions of midwives' workload, published from 2013 to 2023 in English. Excluded were opinion papers, systematic reviews, literature, scoping reviews, meta-analyses, editor letters, and commentaries. The JBI Critical Appraisal Tools was used to identify the which articles was suitable and follow the guideline. Articles discussing intervention concepts without implementation details or reporting on needs assessment results were also excluded.

PRISMA Flowchart

Article selection followed an iterative team approach using a PRISMA flowchart. From 184 articles, we excluded articles that were a duplicate during the search process until we found 127 articles. The articles excluded in the first screening were 33 due to unsuitable topics, leaving 65 articles to meet the criteria and eligible for the following assessment. A total of 32 full-text articles were ready for eligibility with JBI tools, and 15 articles were included in this study.

Data charting

Excluding irrelevant publications and entering remaining details into a table, including article title, author, year, country, purpose, research type, participants/sample size, and results.

Present the Findings

Findings were compiled, condensed, and presented, along with implications for practice, policy, or research. In this study, researchers adjusted policy, practice, and based on studied articles.

Expert Consultation

Researchers consulted midwifery experts to obtain insights within the studied scope.

Table 1: Data Charting.

No	Article Title	Author's Name	Year	Country	Purpose	Type of Research	Participants	Results
1.	Midwifery workplace culture in Australia: A national survey of midwives (9)	Catling et al	2020	Australia	Examine Australian midwives' perceptions of workplace culture, using a specifically developed instrument.	Survey	322 eligible midwives rated workplace culture and 150 provided further qualitative responses	Workplace experiences and negative perceptions of organizational culture among midwives may contribute to staff turnover in maternity services. Midwives' work is impacted by frustration with organizational attitudes, hindering their ability to deliver effective care. The survey revealed several workplace culture themes, such as "the ability to function as a midwife," "support at work," and "incidents of bullying." Peer support and camaraderie within workplace teams were highly valued by midwives, who tended to respond more positively about colleagues than about managers or larger organizational structures.
2.	Western Australia facing critical losses in its midwifery workforce: A survey of midwives' intentions (10)	Pugh et al	2013	Australia	Determine factors contributing to the intention of the midwives to move jobs and/or leave the profession.	Survey	1,600 midwives	Midwives encountered various challenges that influenced their job satisfaction and inclination to exit the profession. These challenges encompassed a demanding workload, inadequate compensation, insufficient staffing levels, and a workplace culture that failed to recognize the value of midwives.
3.	Comparing the views of caseload midwives working with First Nations-families in an all-risk, culturally responsive model with midwives working in standard caseload models, using a cross-sectional survey design (7)	McLardie et al	2023	Australia	Explore the views, experiences and wellbeing of midwives working in an all-risk culturally responsive model for First Nations families compared to midwives in standard caseload models in the same services.	Cross-sectional survey	35 midwives	Both the caseload and culturally responsive models showed positive attitudes toward professional roles, preferring collaboration with a small midwife group for continuous care connections. In contrast, the culturally responsive model reported higher job satisfaction and lower burnout. Constraints limiting midwives' participation in caseload models included being on-call, dealing with poor work-life balance, and organizational aspects related to the model's structure and support.
4.	The association between attendance of midwives and workload of midwives with the mode of birth: secondary analyses in the German healthcare system (11)	Knape et al	2014	German	Examine the association between the attendance and workload of midwives with the mode of birth outcomes in a population of low-risk women in a German multi-centre sample	Pro-spective controlled multi-centre trial	1,238 women	The mode of birth is only associated with satisfaction with the presence of midwives and supportive procedures provided by midwives but not workload.

CONTINUE

Table I: Data Charting. (CONT.)

No	Article Title	Author's Name	Year	Country	Purpose	Type of Research	Participants	Results
5.	What factors affect documentation by midwives? A prospective study assessing relationship between length of shift, workload and quality of note keeping (12)	Bailey et al	2015	UK	Assess the association between the quality of basic note keeping and partogram documentation with progression of shift and workload on labour ward.	Prospective observational study.	61 women	The duration of a shift and the workload could influence the quality of documentation by midwives. There was a statistically significant difference in mean documentation scores between the middle and end of shifts, signifying a decline in documentation quality as the shift advanced. However, no significant correlation was observed between the beginning, middle, and end of shifts and the workload. The progression of a shift was found to significantly impact various documentation aspects, including the recording of the date, the legibility of midwives' names, and the correction of errors.
6.	Workload, Job Satisfaction And Occupational Stress In Polish Midwives-Before And During The Covid-19 Pandemic (13)	Jasinski et al	2021	Poland	Describe, explain, and compare the correlations between workload, job satisfaction, and occupational stress levels in Polish midwives working before and during the COVID-19 pandemic.	Quantitative	133 midwives working before the COVID-19 pandemic and 92 midwives working during the pandemic	Amid the pandemic, working, personal SARS-CoV-2 infection, and workload were predictors of increased occupational stress for midwives. Those working during the pandemic reported significantly higher stress levels compared to pre-pandemic times. Job satisfaction served as a negative predictor of stress and acted as a mediator between workload and occupational stress. The positive impact of job satisfaction on stress coping was more pronounced in the group working during the pandemic.
7.	Factors that may influence midwives work-related stress and burnout (14)	Mollart et al	2013	Australia	Determine the incidence and level of work-related stress and burnout in midwives and contributing and protective demographic factors that may influence those levels.	Survey	56 midwives	Midwives showed moderate burnout levels in Emotional Exhaustion and Personal Accomplishment, and low levels in Depersonalization. Burnout is influenced by exercise habits and shift types, with higher burnout observed in non-exercisers and night-shift-only workers compared to those who exercise regularly or have mixed day and night shifts..
8.	The implementation process of the Workload Indicators Staffing Need (WISN) method by WHO in determining midwifery staff requirements in Greek Hospitals (15)	Gialama et al	2019	Greek	Demonstrate the implementation process of the health workforce planning tool 'Workload Indicators of Staffing Needs' introduced by the World Health Organization.	Descriptive and cross-sectional study	4 (2 public and 2 private) hospitals	There was shortage in the number of midwives after implementation process of WISN. Moreover, both public hospitals indicated a surplus of midwives (1.83 and 1.33 ratios for the General hospitals in Korinthos and Kalamata, respectively).
9.	Salary and Workload of Midwives Across Birth Center Practice Types and State Regulatory Structures (16)	Ross et al	2022	US	Investigate how variety of practice types among birth centers and a range of state regulatory structures of midwifery practice across the United States relate to pay and workload for midwives at birth centers.	Quantitative	161 birth centers	Nurse-midwife variations were inconsistent. Midwives in the birth center model worked long hours. Salaries for midwives exclusively in birth center practices were consistently lower than those in combined birth center and hospital practices, irrespective of experience, geographic region, or state regulatory structure.

CONTINUE

Table 1: Data Charting. (CONT.)

No	Article Title	Author's Name	Year	Country	Purpose	Type of Research	Participants	Results
10.	Examining job satisfaction, mental workload, and job control in midwives working in hospital (17)	Maryam et al	2020	Iran	Examine job satisfaction, mental workload, and job control in midwives in hospital	Descriptive-analytical study	143 midwives	Mental workload was reported high in the subjects. Moreover, there was a correlation between mental workload, job satisfaction, and job control.
11.	Perceptions of midwives on shortage and retention of staff at a public hospital in Tshwane District (18)	Matlala et al	2019	South Africa	Explore the perceptions of midwives on the shortage and retention of staff at a public institution.	Explorative, descriptive generic qualitative design method	11 midwives	The impact of a midwife shortage has been observed to be directly tied to poor quality care as a result of increased workload, leading to low morale and burnout. The diminished autonomy of midwives in high obstetrics dependence units devalues midwifery's status.
12.	The Impact of the Workload and Traumatic Stress on the Presenteeism of Midwives: The Mediating Effect of Psychological Detachment (19)	Jiang et al	2022	China	Explore the mediating effects of psychological detachment on workload, traumatic stress, and presenteeism among midwives	Cross-sectional study	547 midwives	Presenteeism was positively associated with both workload and traumatic stress and negatively associated with psychological detachment among midwives. Psychological detachment partially mediated the relationships between workload and presenteeism and between traumatic stress and presenteeism.
13.	Exploring workload of midwives and nurses in performing health service activities at health centers in Cambodia (20)	Sereyraksmeay et al	2020	Cambodia	Explore the current workload of health staff and the skill mix needed at the health center	Simple descriptive analysis	214 staff	Midwives allocated 43% of their work hours to core health service tasks in health centers, with the remaining 57% devoted to support activities. Nurses spent 20% on core health tasks and 80% on support activities, including meetings, reporting, training, supervision, data management, outreach/community activities, and financial and administrative responsibilities.
14.	Midwife annual delivery workload and maternal and neonatal adverse outcomes, is there an association? (21)	Rottenstreich et al	2021	Israel	Evaluate the association between certified nurse midwives' (CNM) annual delivery workload and short-term, adverse maternal and neonatal outcomes occurring in vaginal deliveries	Retrospective cohort study	140,856 deliveries	Maternal outcomes were not shown to be significantly related to the CNM's annual workload. Neonates delivered by CNMs with "low" annual volume, on the other hand, had a greater prevalence of newborn jaundice and mechanical ventilation.
15.	Working in caseload midwifery care: The experience of midwives working in a birth centre in North Queensland (22)	Edmondson et al	2014	North Queensland	Uncover how birth centre midwives working within a caseload model care constructed their midwifery role in order to maintain a positive work-life balance	A Grounded Theory study	7 midwives	Caseload midwifery care allowed the midwives to practice independently while adhering to hospital norms and guidelines. Work interactions were discovered to be an important component in the construction of their birth center midwifery position. Supportive collaborations allowed for a solid work-life balance.

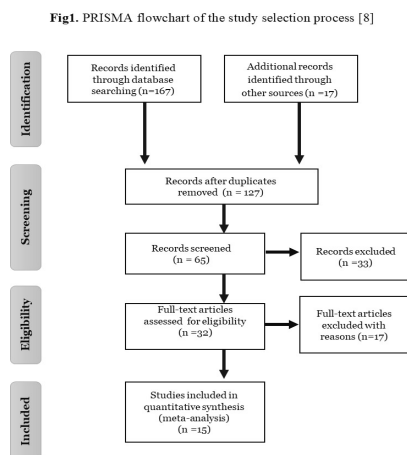


Figure 1: PRISMA flowchart of the study selection process [8].

RESULTS

In total, 184 references were identified, 127 duplicate records were removed. Of the 65 remaining references, 33 did not meet the inclusion criteria. A further 17 references were excluded at the full-text stage, bringing the total to 15 (Fig 1). Details are listed in Table 1. This scoping review adds new knowledge to the literature by synthesizing key findings related to midwives’ workload, highlighting various dimensions, including caseload, patient acuity, staffing levels, work environment, and job satisfaction. At a time with increasing health care demand, our study strengthening the evidence that factors contributing to midwifery’s workload encompass the rising complexity of maternal and neonatal cases, inadequate staffing, long working hours, and organizational challenges in which linked to burnout, decreased job satisfaction, and potential adverse outcomes for both midwives and the women they care for.

Several critical aspects of midwives’ workload were found throughout this scoping review, including:

Caseload

The workload of midwives varies according on the number of cases they are responsible for. Being on-call, as well as a poor work-life balance, could reduce midwives’ time working in caseload models [7]. According to a Cambodian study, midwives and nurses do jobs that are incompatible with their technical abilities. This is because the majority of available annual working hours are spent on support activities rather than health service activities [9]). The study highlight that support activities such as; mentorship, data administration, community outreach activities, and meetings [9]. To address this issue, public health professionals should be employed to assist nurse and midwives in utilizing their technical skill and competencies effectively [9].

Patient Acuity

Workload is influenced by the complexity and acuity

of maternal and neonatal situations [10]. A maximum midwife-client ratio of 1:4 postnatally was considered ‘manageable and safe’ by several midwives, giving greater time for direct care, especially when working with other health practitioners [10]. Furthermore, in the caseload model of care, midwives’ workload varies according on acuity. It is critical to consider 40-45 women each year as a reasonable caseload size for low-risk cases [7].

Staffing Levels

The workload of midwives is affected by the quantity of available staff members. Supposedly, maternity ward management is advocated in order to attract and retain midwives in the profession through participatory management in maternity healthcare services [11]. The recommended labor ward staffing need is seven midwives per shift. Thus, increased staffing was viewed as a response to excessive workloads, particularly on night duty [10].

Higher and appropriate staffing levels are required to meet the needs of clients and improve service quality, rather than rushed and substandard service [10]. A pleasant working environment is vital for retaining employees, and the availability of resources in comparison to other public hospitals is one factor that keeps them from leaving. In contrast, inadequate staffing contributed to low morale and a negative workplace culture. Therefore, enough staffing is critical for midwives to offer quality treatment while maintaining a pleasant workplace culture [12].

Work Environment

The workplace culture can have a significant impact on the experiences and outcomes of not only midwives, but also the mothers and infants they care for. A positive workplace culture necessitates respecting peer support and camaraderie within workplace teams [12].

Job Satisfaction

Workload may have an impact on midwives’ job satisfaction [10]. Job satisfaction in the workplace is influenced by elements such as the nature of the work, the amount of difficulty of the job, social status, working conditions and safety, advancement prospects, an efficient incentive system, management, workers’ participation in decision making, and workload [13].

The following factors have been recognized as contributing to increased workload among midwives:

Rising Complexity

The rising complexity of maternal and neonatal cases is increasing the workload. The increasing complexity of care was a factor in midwives’ decision to leave [10]. Presenteeism was connected with both workload and traumatic stress in midwives, but not with psychological detachment. Workload and presenteeism were both

mediated by psychological detachment [14]. A cohort study conducted in Israel showed that adverse perinatal outcomes were only marginally influenced by certified nurse midwives' (CNM) annual volume after controlling for CNM, delivery mother, and neonate characteristics. Delivery outcomes were not significantly associated with CNM annual workload. However, neonates delivered by CNMs with "low" annual volume had higher rates of neonatal jaundice [15].

Inadequate Staffing

Individual midwives may face increased workloads as a result of a workforce shortage [12]. Excessive workloads contributed to low morale and a negative workplace culture. High acuity and insufficient staffing levels made it challenging to deliver appropriate care. As a result, enough staffing is critical for midwives to offer quality treatment while maintaining a pleasant workplace culture [12].

Long Working Hours

Extensive work hours add to the workload. Because of inflexible working circumstances, midwives may struggle to maintain a work-life balance [12]. Midwives work a high number of hours in the birth center model, but their salaries are consistently lower than in blended birth center and hospital practices, regardless of the midwife's level of experience, geographic region of the country, or state regulatory structure [16]. Moreover, the quality of health documentation declined along with the shift period. The latter shift, the worse documentation was recorded [17]. To improve documentation, appropriately scheduled breaks, shift length, and workload are required [17].

Organizational Challenges

Challenges within healthcare organizations can impact midwives' workload. Workplace experiences and poor impressions of the organization's culture can contribute to maternity care staff attrition. Furthermore, management roles had a significant impact on the workplace culture [12]. For instance, support at work, the low opportunity to use their all-midwifery knowledge, and poor communication in the medically-environment left midwives feeling disempowered [12]. Therefore, to increase monitoring and evaluation efforts among pregnant women, there is a need for collaboration between the health department and the local public health center on mentoring and follow-up programs, which can provide more leverage in expanding coverage of maternal and child health services and reducing midwifery's workload [4].

Our findings indicate that midwives encounter a variety of workload issues, which can have serious consequences for both midwives and the women they care for:

Impact on Burnout

Workload overload can lead to midwife burnout [7]. Furthermore, staffing levels, work environment, and job satisfaction may all contribute to midwives' burnout [8]. Sustained stress and pressure can lead to emotional fatigue, depersonalization, and even decreased personal accomplishment. Burnout can result in poor job satisfaction and a significant percentage of attrition among midwives [7].

The pandemic also influence work-related stress, leading midwives working during the pandemic exhibited significantly greater levels of occupational stress than those working before the epidemic [19].

Decreased Job Satisfaction

Excessive workload might have a detrimental impact on midwives' job satisfaction [12]. This may result in lesser motivation, morale, and maybe increased turnover rates in midwifery roles [12]. Midwives who practice independently in hospitals in compliance with hospital regulations will not feel too restricted in terms of offering case-by-case midwifery care. Moreover, working in a mutually supportive relationship provides the flexibility needed to create a good work-life balance [20]. With the belief that midwives can work independently and can be trusted to provide midwifery services in collaboration with hospitals. This can improve midwife satisfaction with their task based on their authority [20].

Potential Adverse Outcomes

The potential adverse repercussions of increasing workload not only for midwives but also for the women they care for, including the possibility of decreased patient care quality, safety, and satisfaction [10]. Not addressing the challenges faced by midwives may be related with negative health impacts in midwives, which may influence their intention to change occupations or abandon midwifery [10]. Further research should look at the midwifery practice environment at the unit and institutional levels to find determinants of midwife retention and their impact on quality of service as well as midwives' health.

DISCUSSION

A worldwide shortage of midwives accounting for over 50% of the current shortage in health workers, especially in Southeast Asia and Africa [21]. For example in South Africa, the shortage of midwives was noted to have a direct correlation with the inadequate delivery of quality care due to increased work demands [11]. In Southeast Asia, challenges in remote or difficult-to-access locations increase the risk of insufficient resources and a shortage of workforce [22]. In addition, midwife-delivered interventions could reduce the risk of maternal death, neonatal death, and stillbirth [6]. Addressing the

global midwifery shortage, requires urgent and strategic workforce planning, focusing on managing midwives' caseloads to prevent midwifery burnout and retention issues, thereby protect maternal and neonatal health, as well as the health and well-being of midwives.

This study discusses various factors influencing the workload of midwives, primarily focusing on caseload, patient acuity, staffing levels, work environment, and job satisfaction. Caseload models, where midwives are on-call and struggle with work-life balance, can affect the time available for health service activities including support activities such as meetings, administrative tasks and supervision. Moreover, community activities can lower the work efficiency for nurse and midwives. Study in Iran showed that job burnout related to high workload during the shift, can cause midwife suffer from work-life conflict and psychological pressures [23]. As a result, midwives had higher intention to leave their work, causing midwives to leave their organization [24].

Staffing levels play a crucial role, affecting workload and the quality of care provided. Maternity ward management and appropriate staffing are essential for attracting and retaining midwives, preventing low morale and negative workplace culture. Moreover, an increase in obstetrician and midwifery staff, would decrease cesarean delivery by 2.5% and elective cesarean section by 3.4% [25].

The work environment, including workplace culture and peer support, significantly influences midwives' experiences and outcomes. Workload can impact midwives' job satisfaction, and factors such as long working hours, inadequate staffing, and organizational challenges contribute to increased workload and burnout. The burnout of midwives mostly caused by personal-burnout and work-related burnout [26]. Low salary, lack of professional acknowledgement, shortage, young age, limited work experience were significantly influence to unfavorable work environment [27]. Moreover, low support and management will lead to midwife attrition [11]. Thus, midwives viewed staffing, staff mix, and caseload as crucial to ensuring reasonable workloads responsive to acuity and maintaining standards of care [10].

The passage underscores the potential adverse outcomes of high workload for both midwives and the women they care for, including decreased patient care quality, safety, and satisfaction. The need for addressing challenges faced by midwives is emphasized, suggesting that failure to do so may lead to negative health impacts on midwives and influence their intention to change occupations or abandon midwifery. The importance of further research on the midwifery practice environment is highlighted, aiming to identify determinants of midwife retention and their impact on service quality and midwives' health.

CONCLUSION

This scoping review provides a comprehensive overview of the existing literature on midwives' workload, emphasizing the multifaceted nature of this issue and its potential implications for midwifery practice and maternal health outcomes. The findings underscore the need for further research and policy initiatives to address workload-related challenges. For example, at the government level, midwifery organizations or representatives can be invited when discussing health-related policy. Midwifery organizations can also advocate to stakeholders about midwifery's high workload yet inadequate staffing or enable an environment to respect midwifery as a profession where each midwife can develop their skills and be more involved in interprofessional collaboration. Further research needed to explore midwives' experience on workload management strategies, their direct impact on job satisfaction, and its effect on quality of midwifery care provided to mothers and child. Furthermore, more studies should investigate the effectiveness of various intervention such as technological solution, task delegation, and the role of interprofessional collaboration for midwife workload. By addressing these areas, we can develop more targeted and effective policies that not only improve the working conditions for midwives but also enhance the overall quality of maternal healthcare services.

ACKNOWLEDGEMENT

We express our gratitude to Universitas Sebelas Maret for providing funding for this study.

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