The Effect of Local Wisdom on Maternal and Child Health

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ABSTRACT

Maternal and child health remains a major public health concern, where health outcomes are shaped not only by medical and socioeconomic factors but also by sociocultural contexts. This study aims to examine the effect of local wisdom on maternal and child health using a quantitative approach. A total of 150 respondents were surveyed using a structured questionnaire measured on a five-point Likert scale. The data were analyzed using SPSS version 25, including descriptive statistics, validity and reliability tests, and simple linear regression analysis. The results indicate that local wisdom has a positive and statistically significant effect on maternal and child health ($\beta = 0.683$, $p < 0.001$). The coefficient of determination ($R^2 = 0.386$) shows that local wisdom explains 38.6% of the variation in maternal and child health outcomes. These findings suggest that culturally embedded values, beliefs, and community practices play an important role in shaping maternal and child health behaviors. Integrating local wisdom into maternal and child health programs can enhance community acceptance, strengthen preventive care, and improve health outcomes. This study provides empirical evidence supporting the inclusion of cultural dimensions in the formulation of maternal and child health policies.

Keywords: *Local Wisdom, Maternal Health, Child Health, Cultural Health Practices*

1. INTRODUCTION

Maternal and child health (MCH) remains a central concern in global and national development agendas, particularly in developing countries [1]. Despite notable progress over the past decades, continues to face challenges related to maternal mortality, infant mortality, nutritional deficiencies, and unequal access to quality health services [2]. According to national health reports, disparities in health outcomes persist between urban and rural areas, as well as among regions with different socioeconomic and cultural characteristics. These conditions indicate that improvements in maternal and child health cannot rely solely on biomedical interventions but must also consider broader social and cultural determinants of health [3].

Culture plays a significant role in shaping health perceptions, behaviors, and decision-making processes within communities [4]. In local wisdom—defined as a set of values, norms, beliefs, and traditional practices inherited across generations—remains deeply embedded in daily life [5]. Local wisdom influences various aspects of maternal and child care, including pregnancy management, childbirth practices, postnatal care, infant feeding, and child-rearing patterns. Practices such as traditional dietary restrictions during pregnancy, reliance on traditional birth attendants, postpartum rituals, and community-based support systems reflect how cultural values intersect with health-related behaviors [6]. While some forms of local wisdom may pose risks when they conflict with modern medical standards, others play a constructive role by encouraging preventive care, social cohesion, and emotional support for mothers and children.

Recent public health discourse increasingly acknowledges the importance of culturally sensitive approaches to healthcare delivery. Programs that fail to recognize local values and beliefs often encounter resistance or low community participation, limiting their effectiveness [7]. Conversely, health interventions that integrate local wisdom tend to be more readily accepted and sustained [8]. Government initiatives such as community-based health posts (Posyandu) and

maternal health promotion programs have demonstrated that culturally grounded strategies can enhance awareness, participation, and health outcomes [9]. However, empirical evidence that quantitatively examines the influence of local wisdom on maternal and child health remains limited, particularly studies that measure this relationship using standardized statistical approaches.

Existing studies on maternal and child health predominantly emphasize socioeconomic conditions, access to healthcare services, education, and policy implementation; however, these approaches have not fully captured the cultural dimensions that shape maternal behavior and child health practices, as local wisdom is mostly examined in a qualitative or descriptive manner, leaving a significant gap in quantitative evidence that can statistically validate its contribution to health outcomes and limiting the ability of policymakers and health practitioners to systematically integrate cultural variables into health planning and evaluation frameworks. Addressing this gap, the present study aims to analyze the effect of local wisdom on maternal and child health through a quantitative approach by employing a survey-based method with Likert-scale instruments and statistical analysis using SPSS version 25, with the objective of providing empirical evidence on the extent to which local wisdom influences health-related behaviors and outcomes among mothers and children, thereby strengthening the literature on culture as a measurable determinant of health and offering practical insights for the development of culturally responsive maternal and child health policies and interventions.

2. LITERATURE REVIEW

2.1 Maternal and Child Health

Maternal and child health (MCH) is a fundamental indicator of a nation's overall health status and socio-economic development, encompassing the health of women during pregnancy, childbirth, and the postpartum period as well as the physical, mental, and social well-being of infants and children, and internationally its improvement is closely aligned with the Sustainable Development Goals (SDGs), particularly Goal 3, which emphasizes ensuring healthy lives and promoting well-being for all ages, the maternal mortality ratio (MMR) and infant mortality rate (IMR) remain critical public health concerns that reflect persistent inequalities in access to healthcare services, nutrition, education, and social support systems [10]. Previous studies indicate that maternal and child health outcomes are shaped by multiple determinants, including biological factors, healthcare access, education, income, and environmental conditions, yet beyond these structural factors, sociocultural dimensions play a crucial role in influencing maternal behaviors, childcare practices, and health-seeking decisions, as cultural norms can affect antenatal care attendance, place of delivery, breastfeeding practices, immunization uptake, and child nutrition, underscoring that maternal and child health should be understood not only from a clinical perspective but also from a broader socio-cultural standpoint [11].

2.2 Concept of Local Wisdom

Local wisdom refers to the collective knowledge, values, beliefs, norms, and practices developed by local communities through long-term interaction with their social and natural environments, transmitted across generations and functioning as a guiding framework for daily life, including health-related behaviors [12]; in the context, local wisdom is deeply embedded in ethnic traditions, religious values, customary laws, and

diverse communal practices, and is expressed through traditional health practices, community rituals, social support mechanisms, and moral values that emphasize harmony, mutual assistance (gotong royong), and respect for life [13]. Scholars view local wisdom as a form of social capital that enhances community resilience and collective action, particularly in health contexts where shared norms, community supervision, and culturally meaningful practices can encourage healthy behaviors, such as traditional beliefs promoting balanced nutrition during pregnancy, postpartum rest, and collective childcare responsibilities that may positively support maternal recovery and child development [14]; however, local wisdom does not uniformly produce positive effects, as certain traditional practices may conflict with modern medical recommendations, highlighting the importance of critical assessment rather than uncritical acceptance.

2.3 Local Wisdom and Health Behavior

Health behavior theories emphasize that individual health actions are strongly shaped by social and cultural contexts, as socio-cultural models suggest that beliefs, norms, and shared values influence how individuals perceive illness, interpret symptoms, and decide whether and when to seek medical care [15]; within this framework, local wisdom as a cultural construct can affect maternal and child health behaviors both directly and indirectly, for example through trust in traditional birth attendants, adherence to customary postpartum practices, or reliance on family elders for health advice, all of which may shape the utilization of formal healthcare services [16]. Empirical studies in developing countries indicate that culturally embedded practices can enhance health outcomes when they are aligned with public health goals, as community-based traditions emphasizing cleanliness, mutual care, and respect for maternal well-being can reinforce positive health behaviors, whereas cultural taboos or misconceptions may delay timely medical intervention, underscoring the importance of distinguishing which elements of local wisdom support or hinder maternal and child health and suggesting that integrating beneficial cultural practices into health promotion strategies can improve community acceptance and the long-term sustainability of health programs [17].

2.4 Empirical Studies on Local Wisdom and Maternal and Child Health

Empirical research examining the relationship between culture and maternal and child health has predominantly relied on qualitative or mixed-method approaches that explore traditional childbirth practices, breastfeeding customs, and community support systems, with findings generally suggesting that local wisdom contributes to maternal emotional well-being, social support, and continuity of care, particularly in rural or indigenous communities [18]; however, the limited use of quantitative measurement restricts the ability to generalize these findings or to assess the magnitude of cultural influence on health outcomes [19]. In the context, prior studies have documented the role of community traditions in supporting maternal nutrition, child immunization efforts, and health education through local leaders, yet these investigations largely emphasize descriptive outcomes rather than statistically tested relationships, highlighting a persistent gap in quantitative research that operationalizes local wisdom into measurable variables and empirically examines its effects on maternal and child health using standardized instruments and statistical tools within public health frameworks [20].

2.5 Research Gap and Conceptual Framework

Based on the existing literature, maternal and child health is shaped by a complex interaction of medical, socioeconomic, and cultural factors, yet although the importance of local wisdom has been widely acknowledged at a conceptual level, its empirical influence on maternal and child health outcomes has not been sufficiently examined using quantitative methods, as most previous studies focus on structural determinants or rely on qualitative insights, resulting in limited statistical evidence to support policy integration. To address this gap, the present study quantitatively examines the effect of local wisdom on maternal and child health by measuring local wisdom and health outcomes through Likert-scale instruments and analyzing the data using SPSS version 25, with a conceptual framework that positions local wisdom as an independent variable influencing maternal and child health behaviors and outcomes, thereby contributing to a more holistic and empirically grounded understanding of health determinants.

3. METHODS

This study employed a quantitative research design using a cross-sectional survey approach to examine the effect of local wisdom on maternal and child health. The quantitative approach was selected to allow objective measurement of variables and statistical testing of the relationship between local wisdom and maternal and child health outcomes, while the cross-sectional design enabled data collection at a single point in time to capture a snapshot of perceptions, behaviors, and health-related practices influenced by local wisdom. The study population consisted of mothers who had children and lived in communities where local wisdom and traditional maternal and child care practices are still actively maintained. From this population, a sample of 150 respondents was selected, which was considered sufficient for statistical analysis and representative of the study population. Sampling was conducted using purposive sampling, with inclusion criteria including women who had experienced pregnancy and childbirth, had at least one child, and were willing to participate in the study, ensuring that respondents possessed relevant cultural and experiential knowledge related to maternal and child health.

The study examined two main variables: local wisdom as the independent variable and maternal and child health as the dependent variable. Local wisdom was defined as a set of cultural values, beliefs, norms, and traditional practices related to maternal and child care recognized and practiced within the community, with indicators including traditional health beliefs, community support practices, customary maternal care rituals, and culturally informed child-rearing practices. Maternal and child health reflected perceived health status and health-related behaviors of mothers and children, measured through indicators such as antenatal care practices, childbirth-related behaviors, postnatal care, child nutrition, immunization practices, and general child health conditions. Primary data were collected using a structured questionnaire developed based on relevant literature and adapted to the local context, with responses measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) [21]. Prior to data collection, the questionnaire was reviewed to ensure clarity and relevance, respondents were informed about the study objectives, participation was voluntary, and confidentiality and anonymity were strictly maintained.

To ensure the quality of the research instrument, validity and reliability tests were conducted before data analysis. Item validity was assessed using the Pearson product–moment correlation coefficient, with items considered valid if the correlation value exceeded the critical value at a 0.05 significance level, while reliability was evaluated using Cronbach's Alpha, with values above 0.70 indicating acceptable internal consistency. Data analysis was performed using SPSS version 25 and involved several stages, including descriptive analysis to summarize respondent characteristics and response distributions, classical assumption tests such as normality and

multicollinearity to ensure the suitability of regression analysis, and inferential analysis using simple linear regression to examine the effect of local wisdom on maternal and child health. A significance level of 0.05 was applied, and the regression results were used to assess both the strength and direction of the relationship between the variables.

4. RESULTS AND DISCUSSION

4.1 Respondent Characteristics

A total of 150 respondents participated in this study. All respondents were mothers who had experienced pregnancy and childbirth and were living in communities where local wisdom related to maternal and child care is still practiced.

Table 1. Respondent Characteristics

Characteristic	Category	Frequency	Percentage (%)
Age	20–29 years	45	30.0
	30–39 years	67	44.7
	≥ 40 years	38	25.3
Education Level	Primary	42	28.0
	Secondary	71	47.3
	Higher Education	37	24.7
Employment Status	Employed	58	38.7
	Unemployed/Housewife	92	61.3

Table 1 describes the demographic characteristics of the respondents, indicating that most mothers were in the productive reproductive age group of 30–39 years (44.7%), followed by those aged 20–29 years (30.0%) and those aged 40 years and above (25.3%), suggesting that the majority were at an active stage of motherhood in which experiences related to pregnancy, childcare, and health decision-making are highly relevant, while the variation in age also reflects differences in maternal experience that may influence how local wisdom is understood and practiced in maternal and child health contexts. In terms of education, nearly half of the respondents had completed secondary education (47.3%), with 28.0% having primary education and 24.7% attaining higher education, indicating a moderate educational background that may shape the ability of mothers to access, interpret, and integrate traditional knowledge with formal health information, where higher educational attainment may be associated with greater exposure to modern healthcare practices and lower education with stronger reliance on community traditions. Regarding employment status, the majority of respondents were unemployed or housewives (61.3%), compared to 38.7% who were employed, implying that most participants spend considerable time within household and community environments where local wisdom and traditional practices are transmitted through family interactions and social networks, thereby potentially strengthening the influence of communal norms, family elders, and cultural practices on maternal and child health behaviors and decisions.

4.2 Descriptive Statistics of Research Variables

Descriptive analysis was conducted to examine respondents' perceptions of local wisdom and maternal and child health. All items were measured using a five-point Likert scale.

Table 2. Descriptive Statistics of Variables

Variable	Number of Items	Mean	Standard Deviation
Local Wisdom	8	4.02	0.51
Maternal and Child Health	10	3.95	0.47

Table 2 presents the descriptive statistics of the main research variables, showing that both local wisdom and maternal and child health are perceived at relatively high levels among respondents, with the local wisdom variable (eight items) obtaining a mean score of 4.02 and a standard deviation of 0.51, which indicates general agreement regarding the presence and practice of local wisdom in maternal and child care and reflects a moderate level of response consistency across the population. Similarly, the maternal and child health variable (ten items) recorded a mean score of 3.95 with a standard deviation of 0.47, suggesting a generally positive assessment of antenatal care, postnatal care, child nutrition, and immunization practices, as well as a relatively uniform perception of health conditions among respondents.

4.3 Validity and Reliability Test Results

The validity test, conducted using the Pearson Product–Moment correlation, indicated that all questionnaire items were valid, as the correlation coefficients for the local wisdom variable ranged from 0.421 to 0.712 and for the maternal and child health variable from 0.438 to 0.765, all of which exceeded the critical r-table value of 0.159 at a significance level of 0.05, confirming that the items were suitable for further analysis. In addition, reliability testing using Cronbach's Alpha demonstrated strong internal consistency of the research instrument, with alpha values of 0.834 for the local wisdom variable and 0.862 for the maternal and child health variable, both surpassing the acceptable threshold of 0.70, thereby indicating that the measurement instruments were reliable and appropriate for subsequent statistical analysis.

4.4 Regression Analysis Results

Simple linear regression analysis was conducted to examine the effect of local wisdom on maternal and child health.

Table 3. Simple Linear Regression Results

Variable	B	Std. Error	t-value	Sig.
Constant	1.214	0.327	3.714	0.000
Local Wisdom	0.683	0.071	9.620	0.000

Table 3 presents the results of the simple linear regression analysis examining the effect of local wisdom on maternal and child health, showing that the constant value of 1.214 with a t-value of 3.714 and a significance level of 0.000 indicates a positive baseline level of maternal and child health even without the influence of local wisdom, while the local wisdom variable demonstrates a positive and statistically significant effect with a regression coefficient of 0.683, a small standard error of 0.071, a high t-value of 9.620, and a significance level of 0.000, indicating a stable and strong relationship. These findings suggest that increased adherence to local wisdom—manifested through cultural values, traditional practices, and community-based support systems—is associated with substantial improvements in maternal behaviors and child health outcomes, positioning local wisdom as a strong predictor within the study population. From a theoretical standpoint, the results support socio-cultural health behavior theories that highlight the influence of cultural norms and shared values on health-related behaviors, while empirically reinforcing the role of local wisdom as an important social resource that enhances maternal care, childcare practices, and health-seeking behavior when aligned with public health goals; practically, the significant effect underscores the importance of integrating culturally grounded approaches into maternal and child health programs to improve acceptance, effectiveness, and long-term sustainability of interventions within community settings.

The coefficient of determination results show an R value of 0.621 with an R^2 of 0.386 and an adjusted R^2 of 0.382, indicating that local wisdom explains 38.6% of the variation in maternal and child health among the respondents, while the remaining 61.4% of the variation is attributable to

other factors not examined in this study, such as socioeconomic conditions, access to healthcare services, education, and environmental influences.

Discussion

The results of this study demonstrate that local wisdom has a significant and positive effect on maternal and child health, as reflected by the high mean score of the local wisdom variable, which indicates strong cultural adherence among respondents and confirms that traditional values and community-based practices continue to play an influential role in maternal and child care. The regression analysis provides clear quantitative evidence that local wisdom contributes meaningfully to health outcomes, with a statistically significant regression coefficient (B = 0.683, p < 0.001) showing that cultural elements such as community support, traditional maternal care practices, and shared responsibility in child-rearing positively shape health-related behaviors and perceptions. These findings are consistent with socio-cultural health behavior theories, which argue that health decisions are not solely determined by individual knowledge but are strongly influenced by shared norms, collective beliefs, and social interactions within the community [22], [23].

Moreover, the coefficient of determination (R^2 = 38.6%) indicates that local wisdom accounts for a substantial proportion of the variation in maternal and child health, even when examined as a single predictor. This finding highlights culture as a measurable and significant determinant of health, complementing biomedical and socioeconomic factors that are more commonly emphasized in public health research. The results align with previous studies suggesting that culturally embedded practices can strengthen preventive health behaviors, enhance maternal emotional well-being, and foster stronger community engagement. In context, cultural values such as gotong royong and respect for maternal well-being appear to reinforce positive practices related to antenatal care, postpartum support, and ongoing child health monitoring [16].

Despite the overall positive influence of local wisdom, the findings also underscore the importance of selective and critical integration of cultural practices into formal health programs. Not all traditional practices are inherently beneficial, and some may conflict with modern medical standards, making collaboration between health practitioners, policymakers, and community leaders essential. Such collaboration can help preserve and reinforce beneficial cultural practices while addressing or modifying traditions that may hinder optimal health outcomes. In summary, this study provides strong quantitative evidence that local wisdom plays a significant role in improving maternal and child health and contributes empirically to the development of culturally responsive and sustainable public health strategies.

CONCLUSION

This study concludes that local wisdom has a significant and positive influence on maternal and child health, as evidenced by quantitative findings showing that cultural values, traditional practices, and community-based support systems meaningfully contribute to improved maternal and child health behaviors and perceived health outcomes, with a strong positive regression coefficient and an explanatory power of 38.6% positioning local wisdom as an important determinant alongside formal healthcare services. These results underscore the need for public health strategies that extend beyond a purely biomedical orientation toward culturally responsive approaches, as health programs that recognize and integrate beneficial local wisdom are more likely to gain community trust, encourage active participation, and achieve sustainable impacts; however, such integration should be carried out selectively to ensure alignment with evidence-based medical practices, ultimately highlighting the importance of embedding cultural context into the design and implementation of maternal and child health policies to achieve more holistic and effective health outcomes.

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