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# **Original Article**

Culture-based Gorontalo community support for short-term pregnancy women to prevent stunting in neonates

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Running title: Culture-based Gorontalo community support

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Contributions: The authors contributed equally. Conceptualization, ZM. methodology, ZM and SSI; software, SSI and A; validation, ZM and A; formal analysis, ZM, A, and SSI; investigation, SSI, AP, NPA, SL; resources, ZM, SSI and A; data curation, ZM and A/ writing—original draft preparation, SSI, AP, NPA, SL; writing-review and editing, all authors; visualization, SSI, AP, NPA, SL; funding acquisition, TM. All authors have read and agreed to the published version of the manuscript.

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Conference presentation: Part of this article was presented at the 4<sup>th</sup> International Nursing and Health Sciences Symposium, from 27<sup>th</sup>-28<sup>th</sup> of October 2023, Universitas Brawijaya, Malang, East Java, Indonesia. Significance for public health: An investigation into the impact of cultural community support in Gorontalo reveals its significance in shaping the health behaviours of short-term pregnant women. The study aims to examine the specific forms and approaches of community support that can incentivize pregnant women to address their healthcare requirements, potentially resulting in enhanced maternal health and decreased risk of stunted neonates. By exploring the cultural dynamics of community support in Gorontalo, the research aspires to yield valuable insights into the potential influence of such support systems on maternal and fetal health outcomes.

#### **Abstract**

Community support is known to play an essential role in enhancing maternal health during pregnancy. This is primarily due to the influence of societal factors on the health status of both the mother and fetus. In addition, the significance of community support is particularly evident in the Gorontalo community of Indonesia due to the influence of socio-cultural factors. This study aims to analyze the extent of culture-based Gorontalo community support for short-term pregnant women in improving maternal health and preventing stunting neonates.

The procedures were carried out using a qualitative study method with a phenomenological approach. The sample population comprised 12 pregnant women, 9 village midwives, and 6 cadres, who were selected using the snowball sampling method. In addition, data collection was carried out through in-depth interviews and observations, followed by analysis using Interpretive Phenomenology Analysis (IFA).

The people of Gorontalo were very supportive and concerned about the health of short-term pregnant women and fetuses to prevent stunting neonates. A form of culture-based community support comprised regular reminders to pregnant women to diligently attend monthly check-ups with both traditional healers and healthcare professionals. Traditional healers, also known as shamans, fulfilled their role by performing a range of rituals believed to enhance health and well-being. These rituals typically included massages, administering water fortified with sacred chants, and conducting monthly ceremonies for 7 months. In addition, community members frequently offered food preferences to pregnant women and provided reminders to avoid taboos.

In summary, community support deeply rooted in culture can serve as a powerful reminder for expectant mothers to undergo regular check-ups with both traditional healers and healthcare professionals on a monthly basis.

#### Introduction

Social support is a condition characterized by the presence of individuals who offer advice, motivation, guidance, and assistance when humans experience challenges or obstacles in pursuing their goals. Meanwhile, community support comprises meaningful social relationships that can positively influence the recipient. Although social support is theoretically based on interpersonal exchanges, it is essential to assess whether genuine assistance is received from surrounding individuals.

According to previous studies, Indonesia is a country consisting of diverse ethnic groups, including the Javanese community. This diversity shows the significance of socio-cultural influences in attaining optimal health. In addition, socio-cultural developments have been shown to be an essential indicator of changes in societal thought processes, which have both positive and negative impacts. Several studies have reported the presence of a significant relationship between culture and health. For example, a simple village community can survive with certain treatment methods, which are in line with their traditions.<sup>2</sup>

In the context of culture, the interpretation of pregnancy and childbirth varies significantly across different ethnic groups, particularly in Indonesia.<sup>3</sup> In rural areas in Asian countries, these experiences often carry religious or magical significance, embodying a deeply personal and familiar journey for other family members. In addition, care spanning from the onset of pregnancy through the postpartum period is typically administered within the confines of the home, with the assistance of a midwife.<sup>4</sup> Several studies have shown that the lack of adequate care and social support during pregnancy can lead to different conditions, such as antenatal depression and anxiety.

The occurrence of antenatal depression and anxiety has been reported to exert detrimental effects on various obstetric and fetal outcomes. When left untreated, these conditions can cause pregnancy complications, and postnatal mental health disorders<sup>5</sup> and hamper the mother-infant bond.<sup>6</sup> In addition, mental health disorders have a significant correlation with heightened risk-taking behaviors, such as smoking and substance use, leading to poor maternal quality of life.<sup>7</sup>

In this study, a total of 20 articles were analyzed, with the results showing a significant relationship between low social support and the risk of developing mental health problems, such as depression, anxiety, and self-harm during pregnancy.<sup>8</sup> A common strategy to prevent or reduce pregnancy complications and poor birth outcomes due to mental disorders is to provide strong social support for pregnant women.<sup>9</sup> This is primarily due to the potential of the intervention to increase the positive interactions of individuals.<sup>10</sup> Social support can also provide additional appropriate coping mechanisms for pregnant women to deal with stressful events.<sup>11</sup>

### **Materials and Methods**

This study was carried out using a qualitative approach with a phenomenological design to explore essential or fundamental aspects of the life experiences of individuals regarding a particular phenomenon. <sup>12</sup> In addition, the aim was to explore the provision of social support to short pregnant women.

# Sampling

The study procedures were conducted in the working area of the Tilango Health Center, Gorontalo Regency. The participants comprised 12 short pregnant women with TB <150 cm, and 9 midwives from the Telaga Jaya and Tilango Health Centers, who were selected by Technik using the snowball sampling method. In determining participants, 1 or 2 individuals were first selected during the process. However, when these individuals felt that the data provided was insufficient, additional participants were recruited, leading to an increase in the sample population.<sup>13</sup>

#### Data Collection

Data collection was carried out by conducting in-depth interviews to obtain 20 pieces of information from participants regarding community support for short pregnant women in dealing with pregnancy.

## Analysis

Data obtained were analyzed using Interpretative Phenomenological Analysis (IPA), also known as Interpretative Phenomenological Analysis/IPA in English.14

## **Results and Discussion**

Based on the qualitative information found in the report, there were 3 categories of support from the Gorontalo community for short-term pregnant women, including supportive community, mixed support, and no support. The results of the in-depth interviews are further illustrated in Figure 1.

A form of support from neighbors or the local community for pregnant women comprised reminders to consume nutritious food. Neighbors often inquired about the cravings of pregnant women and willingly prepared these foods, believing that the cravings originated from the fetus's desires and must be fulfilled to prevent stress on the fetus within the mother's womb.

The results showed that it was customary for family and community to advise overdue mothers to seek assistance from a shaman to determine pregnancy status through a ritual known as "raba puru." During this ritual, the shaman palpated the mother's belly to ascertain pregnancy. Pregnant women also sought monthly massages from shaman and requested water blessed with mantras or prayers for consumption and bathing purposes. These practices aimed to promote the well-being of both the mother and the fetus.

Neighbors and the public frequently advised pregnant women to wear head coverings and carry oranges while leaving the house as well as to be careful when walking to avoid slipping. The community believed that pregnant women emitted a pleasant scent, making them easily detectable to spirits. Consequently, these individuals were required to wear head coverings when going out to avoid being stepped on by demons.

The results from in-depth interviews with midwives suggested that a prevalent form of community support for pregnant women comprised advising them to visit a shaman for pregnancy confirmation through rituals, such as massage, prayer water, and bathing, before seeking care from village midwives. This practice contributed to low coverage of initial visits by pregnant women to healthcare providers, as the local community typically sought confirmation from traditional healers.

A summary of interview results with short-term pregnant women, village midwives, and community leaders regarding community support for pregnant women in Gorontalo is presented in Table 1. Community leaders reported the supportive and caring nature of Gorontalo residents towards pregnant women. These participants emphasized the importance of pregnant women regularly consulting with both healthcare

workers and traditional birth attendants. Midwives played an essential role in providing medical pregnancy services, while shaman conducted rituals believed to enhance health and safety, such as massages and the provision of blessed water.

The Gorontalo community expressed their concern for short-term pregnant women through reminders to regularly consult with health workers (midwives) and shaman every month, asking for water infused with prayers or mantras to drink and bathe. In addition, community members often delivered food and provided reminders about avoiding taboo activities believed to endanger their well-being. The results showed that pregnant women actively participated in the 7-month ritual known as "raba puru or Molontalo". In Gorontalo, a prevalent concern among the community revolved around pregnancy. Furthermore, it was customary for family and community to take action when a mother was suspected to be overdue. In such cases, the immediate recourse was to consult a traditional healer, commonly known as a shaman, who performed a ritual called "raba puru" to ascertain pregnancy status by palpating the abdomen. This traditional belief suggested that a shaman possessed the ability to discern pregnancy through the practice. Pregnant women also sought monthly massages from shaman and requested water imbued with mantras or prayers, which was used for drinking and bathing purposes. These rituals were performed with the belief in their ability to promote the health and safety of both the mother and the fetus, providing protection from malevolent forces seeking to cause harm.

The tradition of pregnancy care in Gorontalo extended beyond the physical realm to comprise spiritual practices, expressing gratitude to Allah SWT. Celebrations or expressions of thanks often occurred during the 4th and 7th months of pregnancy. At the 4-month mark, the family typically organized modest gatherings, inviting local shaman and neighbors to partake. During these gatherings, the shaman assumed the responsibility of massaging the expectant mother's abdomen. According to tradition, by the 4th month, the shaman possessed the ability to discern the fetus's gender through touch. When the mother's abdomen responded predominantly to the right, it was interpreted as indicative of a male fetus. Meanwhile, movements toward the left suggested a female fetus. The shaman also administered a full-body massage to the mother and provided water infused with recited mantras for drinking and bathing rituals. These rituals

were believed to fortify the safety and protection of both the mother and the fetus from malevolent influences. 10,11,15

During the 7th month in the Gorontalo community, a significant ritual known as "raba-raba puru" or "motondalo" was often carried out, particularly for first-time pregnancy. This event served as a celebratory occasion attended by the family of both the husband and wife, local community members, shaman, the Imam, and community leaders. The motondalo ceremony commenced with the shaman administering massages to the pregnant woman's body and abdomen. This practice aimed to ensure that the fetus was positioned correctly and that its head received special attention to facilitate easier childbirth. Subsequently, the pregnant woman reclined on the lap of the biological mother or mother-in-law, referred to as "Mopphula," symbolizing hopes for a smooth pregnancy and delivery, invoking blessings from the maternal figure, as mothers were revered for their essential role in childbirth and child-rearing. Following this, the shaman applied a mixture of turmeric and lime, known as "awalahu tilihi," onto specific areas, such as the head, forehead, neck, palms, and abdomen. The concoction was believed to offer protection against malevolent spirits and entities that could pose a threat. In the final phase of the ceremony, all participating family came together for a collective prayer led by the local Imam, joined by community leaders, seeking safety and blessings from Allah SWT for the well-being of the mother and fetus. After the prayer, the husband and wife participated in a symbolic gesture of mutual care and affection by feeding each other boiled eggs. This act symbolized love and support within the marital union, emphasizing the importance of standing together through life's challenges and joys.

Based on the results, cultural diversity profoundly influenced how societies address and respond to issues affecting their populations. Each community possesses its own unique set of local knowledge and practices, which shape their responses to interventions. In addition, environmental factors significantly impacted the implementation and outcomes of health strategies, leading to varied responses across cultures. The perception and management of pregnancy and childbirth varied significantly among different cultures. In rural community across Asian countries, these experiences were imbued with religious and magical significance, deeply personal, and comprised active participation from family

members. Care throughout pregnancy and postpartum periods typically occurred within the home environment, often under the guidance of a midwife.<sup>4</sup> During these times, family members, such as mother, husband, brother, and other relatives assumed specific roles, often serving as healers and providing essential support.

In Madurese society, heightened attention was directed towards pregnant women upon the revelation of the condition to family members and neighbors. This increased focus triggered the implementation of safety measures, recommendations, and cultural taboos aimed at safeguarding the well-being of both the mother and the unborn child. However, the efficacy of these practices in terms of modern medical standards remained uncertain. Rituals, such as regular check-ups with midwives, either through home visits or at designated healthcare centers (Polindes), were often carried out. Traditional healers (dukun) were often consulted to provide massages, including abdominal massages, to ensure the optimal positioning of the baby during birth.<sup>17</sup> The communal nature of Madurese society played an essential role in shaping individuals' behavior. Neighbors and the wider community actively motivated pregnant women to prioritize their health, exerting significant influence during pregnancy.<sup>15</sup> This communal support carried considerable weight, with statistical significance noted at 0.006, underscoring its profound impact on individuals' well-being and health outcomes during pregnancy.<sup>18</sup>

According to a study conducted by Susanti et al the results from the Fisher's Exact test analysis showed a significant association between social support and the inclination of pregnant women to engage in pregnancy exercise program within Wajak village, Malang Regency. The study identified a significant proportion of participants experiencing negative social support, constituting 20% of the total population. However, 33.3% of these participants showed a strong interest in participating in the exercise program.

Indonesia has a rich tapestry of habits, customs, cultural practices, and norms, particularly concerning maternal and child health within the community. These practices were largely influenced by socio-cultural factors deeply embedded within the society. A prevailing perspective viewed pregnancy as a natural process intrinsic to women's essence.<sup>20</sup> The Indonesian culture and societal norms exhibited a significant acceptance of traditional healers, known as dukuns, for the care and examination of pregnant women. Dukuns, revered

as elders and esteemed traditional figures, played an essential role in providing comprehensive services spanning pregnancy, childbirth, newborn care, postpartum support, and overseeing rituals, such as the seven-month ceremony and birth safety ceremonies. In addition, their accessibility was facilitated by their integration into the cultural fabric, often residing alongside expectant mothers. Home births were customary, fostering a sense of comfort for mothers while in close proximity to their family.<sup>15,17</sup>

A study conducted in non-Java-Bali regions, particularly in rural areas, showed a concerning trend of low use of Antenatal Care (ANC) services among pregnant women. This phenomenon was closely associated with the economic status and educational levels of mothers. The results showed a significant correlation between lower economic status, lower education, and the underuse of ANC services. Furthermore, the prevalence of low-income households contributed to the low uptake of antenatal services, alongside the presence of mothers with lower educational level. The results also showed an exacerbation of the low use of ANC services among mothers with a high parity, or number of previous births.<sup>21</sup>

Additional significant factors contributing to the low use of antenatal care services among mothers include limited exposure to mass media, challenges related to the affordability of health services, and geographical distance to healthcare facilities, which were particularly pronounced in rural areas. Furthermore, the odds of low antenatal care use were heightened among mothers who did not encounter pregnancy complications. Identifying and understanding these multifaceted factors was imperative for the formulation of effective public health strategies aimed at addressing the barriers preventing women from accessing and using antenatal services in Indonesia.<sup>22</sup>

The cultural beliefs and practices observed in certain community or ethnicities in Indonesia often resonated in various countries around the world. India, for instance, was a nation grappling with the challenge of maternal mortality. Diana etc reported the contribution of socio-cultural factors to the disconnect between the knowledge, practices, and socio-cultural beliefs of mothers in India. Within Indian society, there existed an opinion that regarded pregnancy and childbirth as mundane or ordinary occurrences. Liamputtong stated that "the social meaning of birth was shaped by the society in which the

pregnant women resided". Feminist studies showed that cultural attitudes toward birth differed based on culture, social class, and social resources.<sup>2,18</sup>

# **Conclusions**

The tightly woven community support, enriched with cultural traditions, is a strong incentive for expectant mothers to regular check-ups with traditional healers and medical practitioners every month. The active involvement of traditional healers, a fundamental aspect of this cultural endorsement, can significantly enhance the overall health and well-being of pregnant women.

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Table 1. Matrix of empirical results of culture-based community support

Information	Social Support
Pregnancy short  Midwife	<ol> <li>During pregnancy, mothers received support from the local community, such as being delivered food, being informed about pregnancy confirmation from the village shaman and midwife, reminding pregnant women to be careful in their actions, and eating nutritious food.</li> <li>Some people support it and other people or neighbors did not support it.</li> <li>A small number of mothers during pregnancy did not receive support from neighbors and the surrounding community. Neighbors never paid attention and communicated with pregnant women, neighbors often talked about shortcomings of pregnant women.</li> <li>The community was very caring and attentive to pregnant women. A form of community concern was to remind mothers to diligently check their</li> </ol>
	pregnancies with midwives and hulango (shaman) to check the condition of the mother and fetus.
Community Figures	Figures the people of Gorontalo cared for and paid attention to pregnant women. This could be seen by community giving advice about pregnancy and carrying out rituals or customs following the beliefs and beliefs of pregnant women and reminding them of things to avoid during pregnancy that were harmful to pregnant women.

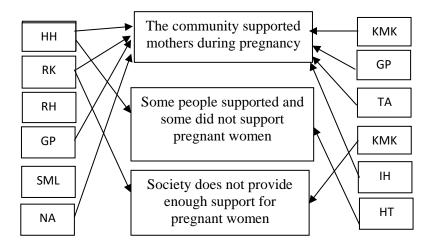


Figure 1 Scheme from interviews with informants related to community support