

Psychological well-being of Nuaulu Woman during the Nuhune Ritual: A Comparative Study of Primigravida and Multigravida

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Keywords:

Psychological well-being
Nuaulu women
Nuhune ritual
Primigravida
Multigravida
Indigeneous culture

ABSTRACT

This study examines the differences in psychological well-being between primigravida and multigravida women of the Nuaulu tribe in Central Maluku during the Nuhune ritual—a traditional period of cultural seclusion symbolizing spiritual purification before childbirth. Employing a comparative quantitative design, the study involved 30 participants (15 primigravida and 15 multigravida), assessed using an adapted version of Ryff's Psychological Well-Being Scale. Statistical analysis using the Mann-Whitney U test revealed significantly higher well-being scores among primigravida women ($U = 5.500$, $p < 0.05$), with a large effect size ($r = 0.82$). These findings suggest that first-time participation in cultural-spiritual rituals may foster greater personal growth, purpose, and emotional support. The results underscore the importance of culturally grounded maternal health strategies that recognize the psychological functions of indigenous rituals. Limitations include the small sample size and cross-sectional design.

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1. INTRODUCTIONS

Indonesia is rich in cultural traditions that deeply shape the values and practices of local communities, particularly in the customs surrounding pregnancy. Among the Nuaulu tribe in Central Maluku, the Nuhune ritual stands out as a unique isolation practice that is mandatory for pregnant women from the ninth month of pregnancy until the postpartum period. For approximately 40 days, women reside in a posune—a traditional house on the edge of the forest—isolated from family and social life. This ritual symbolizes spiritual cleansing and adherence to customary norms ^{[1],[2]}.

Although spiritually meaningful, the Nuhune experience can trigger complex psychological challenges, particularly for primigravida (first-time pregnant) women ^[3]. First-time pregnant women often report stress symptoms such as insomnia, loss of appetite, and recurring nightmares, despite maintaining strong religious commitment. On the other hand, multigravida women (those who have been pregnant multiple times) tend to demonstrate better emotional regulation, likely due to prior experience and familiarity with the ritual context ^[4].

Meanwhile, multigravida women generally have higher adaptive capacity, supported by factors such as age, previous experience, and mastery of the ritual context, which provide them with a more stable psychological foundation^[5]. This is reinforced by an early study by Rugebregt et al., which found that the resilience of Nuaulu women is built on the integration of spiritual beliefs, cultural values, and community support^[6]. Nevertheless, this tradition is not separate from the patriarchal social and cultural context that shapes the lives of Nuaulu women^[7].

Ryff's psychological well-being model—which includes autonomy, environmental mastery, personal growth, life purpose, self-acceptance, and positive relationships—offers a multidimensional lens for assessing maternal mental health ^{[4],[8]}. Previous studies have shown that multigravida women may experience higher levels of perinatal anxiety, reduced sleep quality, and decreased self-care practices compared to primigravida women. The pattern becomes more complex in the context of indigenous communities, where cultural rituals simultaneously serve as protective and limiting forces^{[9],[10]}. The concept of duality in achieving psychological well-being among indigenous women indicates a potential increased risk of depression and anxiety during the perinatal period^[11].

Active engagement in cultural and spiritual practices can instead serve as a crucial protective mechanism. A study by Felisian et al. explains that rituals and beliefs during pregnancy in Tanzania not only fulfill normative functions but also create collective social support that strengthens mothers' psychological resilience^[12]. Previous studies have also described that women from minority groups in rural China also face high pregnancy stress, but they build psychological resilience through cultural strategies and social adaptation^[13]. These findings provide important relevance in interpreting the Nuhune practice not merely as an isolating ritual, but as a context of cultural resilience that has the potential to strengthen the psychological well-being of Nuulu women.

The Nuhune ritual is part of a gender-based social control mechanism that places women in a subordinate position. The practice of isolation serves not only as spiritual purification, but also as a means of enforcing customary norms and disciplining women's bodies^[14]. As a result, the experience of undergoing Nuhune can be ambivalent, serving as both a source of meaning and psychological pressure, depending on the woman's status and her relationship with the surrounding social structure. This structural pressure directly impacts the dimensions of autonomy and environmental control in women's psychological well-being^[15]. This gap highlights the need for locally adapted mental health assessments and culturally sensitive maternal health interventions.

The Nuhune ritual, through a cultural psychology approach, illustrates that women in traditional Nuhune isolation form their psychological well-being through complex relationships between emotional pressure, religiosity, and personal resilience (hardiness)^[16]. The higher the psychological pressure experienced, the higher the level of religiosity used as a coping strategy. In this context, traditional rituals can function as psycho-spiritual structures that mediate between social demands and the meaning of women's lives^[17]. However, the experience of isolation accompanied by powerlessness can also erode aspects of autonomy and emotional balance, especially for multigravida women who undergo repeated isolation without new meaning. During the isolation process, it appears that psychological well-being has a negative relationship with religiosity in primigravida women. The dynamics that occur confirm that the more psychologically distressed an individual is, the higher the religious orientation as an adaptive strategy used to maintain emotional balance and self-meaning^[4].

This study aims to explore differences in psychological well-being between Nuaulu primigravida and multigravida women undergoing the Nuhune ritual, using Ryff's theoretical framework and a cultural psychology approach. This research is expected to contribute to participatory and culturally-based maternal health strategies in indigenous communities such as those in Central Maluku.

2. METHODS

This study uses a non-experimental comparative quantitative design. This design is used to analyze the differences in psychological well-being between Nuaulu primigravida and multigravida women who undergo the Nuhune ritual. This study was conducted in Nua Nea Village, Central Maluku.

The participants in this study were 30 pregnant Nuaulu women, consisting of 15 primigravida and 15 multigravida who met the inclusion criteria. Participants were selected using purposive sampling based on their adherence to the Nuhune traditional practice. The inclusion criteria included: (1) undergoing the Nuhune ritual in full according to the decision of the village elders; (2) willingness to participate; and (3) pregnancy confirmed by local health workers.

The instrument used was an adapted version of Ryff's Psychological Well-Being Scale, consisting of six dimensions: autonomy, environmental mastery, personal growth, life purpose, self-acceptance, and positive relationships. The scale consists of 31 items rated using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Cultural adaptation was carried out through a process of forward translation and expert panel review involving cultural anthropologists and bilingual psychologists familiar with Nuaulu practices. Terminology related to autonomy and spiritual meaning was modified to reflect indigenous values. A pilot test was conducted with five Nuaulu women outside the research sample to ensure cultural relevance and clarity. Internal consistency, based on previous local validation by Otemusu et al., reported a Cronbach's Alpha of 0.752^[4].

Written and verbal consent was obtained from all participants with the assistance of local facilitators who were fluent in the Nuaulu dialect. Cultural sensitivity was maintained by coordinating with traditional leaders (Soa chiefs) throughout the research process. Participation was voluntary and confidentiality was guaranteed. Given the small sample size and non-normal data distribution, the Mann-

Whitney U test was used to compare psychological well-being scores between groups. Statistical analysis was performed using SPSS version 24 for Windows. The significance level was set at $p < 0.05$. Effect sizes were calculated using the rank-biserial correlation formula to complement the significance testing with practical relevance.



Figure 1. Research Design Diagram

3. RESULT AND DISCUSSION

The Mann-Whitney U test in Table 1 shows a significant difference in psychological well-being scores between the primigravida and multigravida groups ($U = 5.500$, $Z = -4.482$, $p = 0.000$). The average score for primigravida was 22.63, significantly higher than that for multigravida (8.37), indicating a notable gap. The large effect size ($r = 0.82$) supports the practical relevance of these findings. These findings suggest that primigravida women experience higher psychological well-being during the Nuhune ritual.

Table 1. Mann-Whitney U Test Result

Variable	U Value	Z Score	p-value (2-tailed)
Psychological Well-Being	5.500	-4.482	0.000

The average values in Table 2 show that the average rating for the primigravida group was 22.63, while the multigravida group had an average rating of 8.37. These results indicate a significant difference in psychological well-being between the two groups during the Nuhune ritual. To complement the statistical significance, the effect size was calculated using the rank-biserial correlation formula ($r = Z / \sqrt{N}$), yielding an effect size of $r = 0.82$, indicating a large effect. This reinforces the practical relevance of the observed differences.

Table 2. Mean Ranks of Psychological Well-Being

Group	N	Mean Rank	Sum of Ranks
Primigravida	15	22.63	339.50
Multigravida	15	8.37	125.50

This analysis shows that primigravida women who participated in Nuhune had higher psychological well-being scores than multigravida women. The significant difference in rankings also raises the

possibility of distribution outliers or unmeasured moderating factors, such as individual coping styles, previous trauma, or variations in family support.

The results of this study show significant differences in psychological well-being between primigravida and multigravida Nuaulu women who experience Nuhune rituals. Primigravida participants reported higher levels of well-being, as reflected in significantly higher average rankings. This finding highlights how cultural and psychosocial dynamics uniquely shape the psychological experiences of women in the Nuaulu tribe.

These findings generally align with previous studies emphasizing the importance of the first-time experience dimension in shaping psychological resilience. Multigravida women tend to exhibit worse mental health symptoms compared to primigravida women, who are better prepared to cope with difficult and challenging events^[18]. Another condition experienced by multigravida women is higher perinatal anxiety and poorer sleep quality^[16]. The combination of these factors can influence self-perception and emotional balance, contributing to lower psychological well-being scores.

Within the framework of Ryff's psychological well-being model, these results suggest that primigravida women appear to excel in dimensions such as life purpose, personal growth, and positive relationships, as they experience pregnancy as a new and meaningful transition toward motherhood. Rituals—when viewed as sacred and supported by collective expectations—can provide structure, spiritual reinforcement, and social validation. Conversely, multigravida women who experience rituals repeatedly without variation in experience or new meaning tend to show a decline in autonomy and environmental mastery.

This interpretation aligns with previous findings explaining higher anxiety levels and lower well-being among multigravida women^{[9],[18]}. Similar to these findings, multigravida women in this study may experience a decline in environmental mastery and autonomy due to the repetitive and prescriptive nature of Nuhune, which may lead to emotional exhaustion or indifference toward the spiritual meaning of the ritual.

In contrast, these results differ from the findings of Urvia et al., who found that primigravida mothers in urban areas during the pandemic experienced higher levels of anxiety than multigravida mothers. This difference likely reflects contextual differences^[19]. This can be explained by the fact that, unlike in urban environments,

primigravida women in Nuaulu are immersed in a strong kinship system and receive ritual and spiritual guidance from traditional elders, which may function as a cultural protective mechanism. This dynamic reinforces the view that religiosity and ritual involvement can function as adaptive coping mechanisms in indigenous contexts, although they may have different psychological meanings for women at different stages of pregnancy^{[20],[21]}. This difference can be explained by the strength of the kinship support system and spiritual customary structures in Nuaulu society. Local cultural practices can function as protective mechanisms against psychological stress^[12].

Engagement in cultural and spiritual practices is a key protective factor against perinatal depression and anxiety in indigenous women, suggesting a dynamic process of achieving psychological well-being^{[11],[22]}. The preservation of local cultural values also provides structured and accessible social support during pregnancy and postpartum for women experiencing it^[23]. The combination of religiosity, family support, and Nuhune rituals serves as social capital that strengthens the process of achieving psychological well-being among Nuaulu women.

Walsh explains that spiritual belief structures, community support, and emotional communication within the family are the main pillars of psychosocial resilience in pregnant women^[24]. This model is relevant for understanding why Nuaulu primigravida tend to receive more explicit support from extended family and indigenous communities as a form of welcoming their first maternal role.

Furthermore, the cultural values embedded in the Nuhune ritual can provide deep meaning for primigravida women, particularly in aspects such as self-meaning, personal growth, and connection to spirituality, as described in Ryff's psychological well-being model. The ritual allows for deep reflection on their new role as mothers and shapes a sense of ownership of their cultural identity. This emphasizes the role of religiosity and spirituality, which contribute positively to women's psychological well-being in the context of the Nuhune ritual [4], [14].

Meanwhile, multigravida women may experience Nuhune differently. Although physically more prepared and experienced, some of them report boredom with the repetitive social restrictions. This issue can impact the decline in psychological well-being dimensions such as environmental mastery and autonomy. Studies by Atiyah and Oleiwi also support this finding that multigravida women show a decline in self-care behavior and coping quality compared to their first

pregnancy^[20]. In line with this, findings from Çankaya and Ustunsoz also reveal that multigravida women tend to have lower self-care quality and experience recurring psychological stress that is not always managed well^[22]. This further explains the lower psychological well-being scores among the Nuaulu multigravida group who have experienced repeated traditional isolation without adequate new meaning or reflection.

Although multigravida are technically considered more experienced, the emotional and spiritual experiences of primigravida within a cultural context can contribute more significantly to their psychological well-being. These findings emphasize that cultural dimensions, spirituality, and social support play a crucial role in shaping the psychological well-being of pregnant women and cannot be viewed solely through the lens of parity status. Despite the variations between primigravida and multigravida women in the process of achieving psychological well-being, it is important to consider psychosocial factors such as social support and previous experiences^[25]. This is relevant to the context of the Nuhune isolation ritual, which can elicit different psychological responses, especially due to its isolative and normative nature that puts pressure on women^{[23], [26]}.

The large effect size ($r = 0.82$) also indicates a significant practical difference, supporting the importance of considering psychological well-being beyond biological or demographic variables. However, the extreme differences in rankings (22.63 and 8.37) raise the possibility of unmeasured confounding factors or outliers, such as variations in individual spiritual commitment, trauma history, or differences in family support. These factors require further investigation in future studies. Additionally, the cross-sectional design limits the ability to assess how psychological well-being may develop throughout pregnancy and the postpartum period. The small sample size, although reflective of the Nuaulu community population, limits generalizability and increases sensitivity to outlier effects.

Thus, the results of this study reinforce the need for culturally adaptive maternal health interventions. Programs that acknowledge and integrate indigenous spiritual frameworks—without reinforcing limiting gender norms—can support both psychological well-being and cultural sustainability.

4. CONCLUSION

The results of this study indicate that Nuauulu women who are pregnant for the first time (primigravida) and experience Nuhune rituals have significantly higher levels of psychological well-being than women who have been pregnant before (multigravida). The Mann-Whitney U test statistically reinforces this finding. These findings underscore that cultural and spiritual practices, when experienced for the first time, can provide meaningful psychological support through increased sense of purpose, spiritual reinforcement, and social validation. Conversely, multigravida women may experience emotional exhaustion and decreased autonomy due to the repetitive and normative nature of the ritual. Psychological well-being during pregnancy in indigenous communities is not only influenced by pregnancy status but also by the depth of cultural integration, social support, and personal meaning formed within ritual experiences. These findings underscore the importance of evidence-based and culturally sensitive maternal health approaches.

Further research is recommended using qualitative methods, such as in-depth interviews or ethnographic approaches, to better understand how indigenous women build psychological resilience within traditional frameworks. Additionally, the development and validation of contextually appropriate psychological well-being assessment tools will strengthen assessment and intervention strategies in culturally diverse communities.

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