

Leveraging Dowry Practices to Support Maternal Nutrition in South Nias, Indonesia: A Kinship – Based Perspective

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Abstract

Background

Maternal nutrition is crucial for maternal and fetal health. In Bawomataluo, South Nias, Indonesia, Cultural practices such as *bōwō* (dowry) and *Famahalo'ō* (kinship-based redistribution) shape household resource allocation and influence maternal nutrition outcomes. This study explores the socio-cultural mechanism through which *bōwō* within *Famahalo'ō* affect household decision-making and examines their implications for maternal nutrition, providing insights to design culturally responsive interventions.

Methods

A qualitative design was employed, including in-depth interviews with 20 purposively selected informants, one focus group discussions with 7 participants, and participatory observation. Data were analysed thematically using Nvivo 12, employing open, axial, and selective coding. Triangulation of methods and member checking ensured credibility and rigor.

Results

Findings show that *bōwō* serves as both economic and social capital, enhancing household well-being and offering potential to support maternal nutrition through *Famahalo'ō*. Family members play a central role in decision-making, influenced by kinship norms, socio-cultural obligations, and economic conditions. Challenges include prioritizing dowry for ceremonial purposes, which can limit resources for maternal nutrition

Conclusions

Cultural practices like *bōwō* and *Famahalo'ō* can be leveraged as community-based strategies to improve maternal nutrition. Policy and programmatic interventions should involve traditional leaders, village midwives, and culturally sensitive health education to optimize resource allocation. These findings provide evidence for integrating socio-cultural contexts into maternal nutrition programs in rural Indonesia.

INTRODUCTION

Nutrition is a fundamental factor that affects reproductive health throughout life, from pre-conception and fertility to pregnancy, breastfeeding, and menopause (1). Healthy maternal nutrition is essential for fetal development, as well as for short-term and long-term health that impacts both mother and child. Maternal malnutrition has a significant relationship with low birth weight in newborns. Evidence suggests that nutritional interventions started before conception have a greater effect on birth output, including birth length and weight (2–4).

Although there are global interventions to address maternal malnutrition (5). This remains a persistent public health problem due to structural, economic, and sociocultural (6–8). These constraints are further reinforced by decision-making processes at the household level that are culturally embedded, kinship structures and social obligations (9).

In rural contexts, with limited formal health services, cultural practices serve as informal governance systems that regulate household food allocation and maternal dietary behaviours (10, 11). Positive cultural practices can be leveraged to improve maternal nutritional status during pregnancy (12). Understanding local variation is essential to tailor nutrition intervention activities to local cultural practices and social systems (13, 14).

South Nias is one of the socio-economically disadvantaged areas in North Sumatra Province, with ongoing public health challenges related to the nutrition of pregnant women. The prevalence of chronic energy deficiency (SEZ) among pregnant women is still a significant concern, reaching around 15% (SKI, 2023). Which shows the vulnerability of sustainable nutrition in the region. This condition reflects the complex interplay between structural poverty, limited access to health services and socio-cultural determinants of health

One of the culturally significant practices in the Nias society is *bōwō* in Nias wedding customs, *Bōwō* is the term dowry or dowry used in traditional Nias tribal weddings. *Bōwō* is a mandatory requirement from the male to the female side for the marriage to be customarily valid (15). The circulation of resources derived from *the bōwō* continues after marriage through a kinship-based practice known as *famahalō'ō*, a kinship-based practice in which extended family members provide mutual support to newly married couples in the form of financial assistance or livestock.

Together, *bōwō* and *famahalō'ō* form a culturally embedded resource system that can influence household allocation decisions, including maternal nutritional priorities. However, the mechanisms by which these practices shape decision-making in households and their implications for nutrition are still not adequately understood. Research on the use of traditional practices to support the health of pregnant women, especially in terms of nutritional fulfillment, has not been discussed in depth (16).

The existing literature mostly focuses on the symbolic and socio-economic functions of the dowry system (17, 18). While attention paid to the process of dynamic redistribution through kinship-based mechanisms such as *famahalō'ō* is still limited. Although culturally sensitive nutrition interventions are increasingly recognized as essential, there is still a lack of understanding of how reciprocal obligations and kinship norms govern resource priorities for maternal health (19, 20).

Therefore, this study aims to explore the socio-cultural mechanisms that through the practice of *bōwō* and *famahalō'ō* influence the allocation of household resources and to examine their implications for maternal nutrition in rural South Nias. Understanding these mechanisms is critical to designing maternal nutrition interventions that are culturally responsive and aligned with local social systems.

METHODS

Study design

This study was designed as a qualitative exploratory study to investigate how *bōwō* received as a traditional gift given after marriage in the Nias community, can be used to improve the health of pregnant women, especially in terms of meeting nutritional needs. Qualitative research is well suited for this because it allows for the exploration of the life experiences and complexities of cultural practices

Setting up

This research was conducted in Bawamataluo Village, Fanayama District, South Nias, with an area of 2.78 km, with a population of 3658 people consisting of 3 hamlets (21). Bawamataluo Village not only has beautiful natural tourist attractions but also has the potential for local cultural wisdom that is very interesting and is still preserved today. The people of Babomataluo village still have a strong customary system with the role of traditional leaders (*Si' ulu and S'ila*) who are very dominant in marriage practices (22).

Informant Recruitment

In-depth interviews were conducted with 20 informants consisting of community leaders or traditional leaders (*S'iulu and Si'ila*), community leaders, religious leaders, pregnant women and family members, local health workers. The selection of informants is carried out purposively to ensure the diversity of views in society. The selected informants included individuals with different levels of involvement in the practice of *famahalō 'ō*, which aims to understand how *famahalō 'ō* is perceived, utilized in the family and the challenges that arise in meeting the needs of pregnant women, the characteristics of the informants can be seen in Table 1, in detail.

Table 1
Characteristics of Informants

No	Initials	Age	Jobs	Roles/ Categories	Remarks
1	TN W	65 Years	PNS	Traditional Figures (<i>Si'ulu</i>)	Si'ulu: Customary leaders who organize and lead customary processes
2	TN A	60 Years	Self-employed	Traditional Figures (<i>Si'ulu</i>)	Si'ulu: Customary leaders who organize and lead customary processes
3	TN A	53 Years	Self-employed	Traditional Figures (<i>Si'ulu</i>)	Si'ulu: Customary leaders who organize and lead customary processes
4	TN P	65 Years	Farming	Traditional Figures (<i>Si'ulu</i>)	Si'ulu: Customary leaders who organize and lead customary processes
5	TN D	70 Years	Wiraswata	Traditional Figures (<i>Si'ulu</i>)	Si'ulu: Customary leaders who organize and lead customary processes
6	TN D	88 Years	Farming	Traditional Figures (<i>Si'ulu</i>)	Si'ulu: Customary leaders who organize and lead customary processes
7	TN N	70 Years	Wiraswata	Traditional Figures (<i>Si'ila</i>)	Si'ila: Advisor and Regulator of social norms
8	TN N	70 Years	Wiraswata	Traditional Figures (<i>Si'ila</i>)	Si'ila: Advisor and Regulator of social norms
9	TN T	78 Years	Self-employed	Traditional Figures (<i>Si'ila</i>)	Si'ila: Advisor and Regulator of social norms
10	Ny P	39 Years	Farming	Pregnant Women	G4P3Ab0: Gravida 4, Para 3, Abortion 0, Gestational age 36 weeks
1	Ny D	25 Years	Farming	Pregnant Women	G2P1Ab0: Gravida 2, Para 1, Abortion 0, gestational age 28 weeks
12	The M	31 Years	Farming	Pregnant Women	G1P0Ab0: Gravida 1, Para 0, Abortion 0, gestational age 32 weeks
13	The S	25 Years	Farming	Pregnant Women	G2P1Ab0: Gravity 2, Para 1, Abortion 0, gestational age
14	The N	53 Years	Farming	Mother (<i>bōwō</i> recipient)	Decision-makers of bowo use in the family
15	TN B	78 Years	Farming	Dad (<i>bōwō</i> recipient)	Decision-makers of bowo use in the family
16	The F	36 Years	Wiraswata	Family members (sons-in-law)	Daughter-in-law in the family decision-maker uses bowo in the family
17	The L	65 Years	Farming	Mother (<i>bōwō</i> recipient)	Decision-makers of bowo use in the family
18	The K	29 Years	Village midwives	Health workers	Providing nutrition education to pregnant women in
19	TN W	65 Years	Village head	Community Leaders	Engage in Bowo socio-cultural practices
20	TN I	31 Years	Pastor	Religious Figures	Figures who provide religious and social norms that influence family decisions in the use of <i>bōwō</i>

Data collection

This study uses a qualitative approach to explore socio-cultural mechanisms through the practice of *bōwō* and *famahalō 'ō* that affect the allocation of household resources and their implications on the nutrition of pregnant women in Bawomataluo Village, South Nias. Data were collected through three main methods, in depth interviews, focus group discussions (FGDs), and participatory observations. The researcher plays the role of the main instrument responsible for the preparation of interview guidelines, the implementation of data collection, and the initial interpretation of research findings.

All interviews are recorded with the consent of participants to ensure a smooth data collection process. In-depth interviews were conducted with 20 informants who were selected purposively, consisting of traditional leaders (*Si'ulu and Si'ila*), community leaders, religious leaders, pregnant women, family members, and health workers (village midwives). Semi-structured interviews were conducted to explore perceptions, experiences, and practices related to the use of bowo in supporting the fulfillment of nutrition of pregnant women, as well as the role of *famahalō 'ō* as a mechanism for resource redistribution.

Observations of participants' expressions were also summarized to enrich understanding of social and cultural contexts. Each interview lasts 60–90 minutes, and is carried out once to each informant, during the interview process the researcher is accompanied by a translator who helps translate the communication between the researcher and the informant, especially for informants who are unable to speak Indonesian, thus ensuring the accuracy and smoothness of the collection of data collected. One FGD session was carried out involving 1 community leader and 9 traditional leaders, but of the 9 traditional leaders who were scheduled to attend, two people were not present because they were involved in the traditional burial process. Thus, the participants of the FGD were 1 community leader and 7 traditional leaders, however, the absence did not affect the quality or overall results of the discussion, because the information obtained from the eight informants was representative enough to ask research questions.

FGD informants are key informants to gain a collective understanding of the practice of *famahalō 'ō* and the potential use of *bōwō* to support the nutrition of pregnant women. This FGD was facilitated by the main researcher and supported by the research assistant in charge of taking notes. The discussion lasted 90–120 minutes and focused on how this traditional practice became a means of conveying health messages and redistributing resources in the extended family.

To ensure the credibility of the data, this study applied triangulation of methods and sources by comparing the results of interviews, FGDs and observations, in addition, member checking was carried out with several key informants to ensure the suitability of the researcher's interpretation with the informant's experience.

Participatory Observation

Participatory Observation was conducted to gain a more comprehensive understanding of the cultural context of *famahalō 'ō*. The researcher observed the meeting of traditional leaders (*Si'ulu and Si'ila*). Observations were made once at the peaceful marriage ceremony of Gea and Christyani Wau in Bawamataluo Village, during which observations noted the role of *bōwō* in the event. This method allowed researchers to witness firsthand how *bōwō* is used in society, as well as how it relates to the social dynamics between newlyweds, their families and the wider community.

This study follows the COREQ (Consolidated Criteria for Reporting Qualitative Research) check to ensure transparency, accuracy, and completeness in reporting qualitative findings. A completed checklist is provided as additional material.

Data Analysis

Data analysis was carried out using a systematic thematic analysis approach. All the results of the interview, the directed group discussion (FGD), were transcribed verbatim and analyzed using NVivo12 software. In this study, the entire data coding process was carried out by one researcher (single coder), this provides consistency in data interpretation. The

coding process begins with open coding, which is the identification of the unit of meaning from the interview transcript and the FGD using open coding is carried out using in vivo coding, where key phrases are taken directly from the participants' own words to maintain the authenticity of their perspectives, then axial coding, which is the grouping of codes into categories that have similar meanings and conceptual relationships. The final stage is selective coding, which is the integration of the main category into one core concept, namely bowo as a kinship system in the allocation of household resources (23).

The Matrix Coding Query feature in NVivo software is used to analyze the relationship between axial coding and selective coding (24). This feature allows researchers to identify the linkages between *bōwō* for family well-being (25). *Famahalōō*, the relationship between *bōwō* and the health of pregnant women, challenges in the use of *bōwō*, family responsibility. Query results are used to validate the consistency of relationships between themes and strengthen thematic integration.

Ethical considerations

The Research Ethics Commission of the Faculty of Public Health, Hasanuddin University, Makassar, approved this study (Number: 1239/UN4.14.1/TP.01.02/2025). All procedures involving human participants were conducted in accordance with the ethical standards of the institutional research committee and principles of the Declaration of Helsinki. Before data collection, written informed consent was obtained from all participants after they received information regarding the purposes of the research, study procedures, voluntary participation, confidentiality, and their right to withdraw at any time without any consequences. The research was conducted in a manner that respected the cultural norms of the Nias Community and did not interfere with community life. Confidentiality was maintained throughout the research process, and participants' identities were protected in all publications resulting from this study.

RESULTS

The results of the analysis used NVivo 12 through open coding, axial coding, selective coding and matrix coding Query which produced five main themes that describe socio-cultural mechanisms in utilization *bōwō* and *famahalōō* in the allocation of household data sources in the people of South Nias. These findings show that *bōwō* does not stand as a single economic resource, but is integrated in a kinship system that influences household decision-making, including in the context of fulfilling pregnant nutrition. All themes are interconnected in a kinship system that affects the decision to allocate resources, the potential for their use to fulfil the nutrition of pregnant women. The findings are then synthesized into a thematic matrix that summarizes the theme, sub-themes and interpretation of meaning as presented in Table 2.

Table 2

Matrix of Qualitative Analysis Results of Bōwō Utilization in the Kinship System and Allocation of Household Resources

Theme	Sub theme	Interpretation of Findings	Quotes
Bōwō for as a family economic system	<i>Bōwō as economic capital</i>	<i>Bōwō serves as a major financial resource to meet the basic needs of the family, including food and health</i>	<i>"Bōwō functions as economic capital, because there are many distribution channels and many recipients for example there are those called Sibaya (uncles), iwagu simatua, and there are other families that are bound by the honesty brought by men. (MR. W, COMMUNITY LEADER, FGD</i>
	<i>Bōwō as social capital</i>	<i>Bōwō strengthens social relations of family solidarity</i>	<i>"So sibaya gives capital as assistance to the bride's family" (TN E, TRADITIONAL LEADERS, FGD)</i>
Famahale'ō as a redistribution mechanism	Redistribution of resources	<i>Famahale'ō became a kinship-based mechanism for the redistribution of economic aid</i>	<i>"Famahale'ō, so after marriage he was called, and given a gift of money, or a pig". (Mrs. K. MIDWIFE DESA, IN-DEPTH INTERVIEW)</i>
	Cultural intervention	<i>Famahale'ō has the potential as a cultural approach to support the nutrition of pregnant women</i>	<i>"The recipient of the bōwō will call the bride back after marriage, and will be given their capital again, from which their health needs are taken",. (MR. E, TRADITIONAL FIGURE, FGD)</i>
The relationship between bōwō and maternal health	Potential nutritional utilization	<i>Bōwō can be used for nutritional needs, especially if allocated appropriately</i>	<i>"Families are encouraged to manage Bōwō so that they can develop, for example through raising livestock such as pigs, which can then be used for basic needs, including health during pregnancy (TN E, TRADITIONAL LEADERS, FGD)</i>
	Community awareness	<i>There is an initial awareness but it has not yet become a systematic practice</i>	<i>"It's good if bōwō is used to help with nutritional needs during pregnancy, some people think about pregnant women, if it runs out for customs, there is no more, like at this time this desire is limited, so if there are traditional figures like that, it is very good" (Mrs. D. PREGNANT WOMEN, IN-DEPTH INTERVIEW</i>
Family responsibility in the use of bowo	Family as a decision-maker	<i>The decision is in the extended family based on the kinship structure</i>	<i>"It's up to the family, they use it for other purposes," he said. (MR. T, TRADITIONAL LEADER, IN-DEPTH INTERVIEW)</i>
Challenges in the use of bōwō	Customary and social priorities	<i>Use for parties and social obligations becomes a top priority</i>	<i>"Because of the cost of the party," (Mrs. N, GRANDMOTHER, IN-DEPTH INTERVIEW)</i>
	Socioeconomic pressure	<i>Social pressure limits allocations for pregnant women's health</i>	<i>"Large expenditures on traditional parties can sacrifice the economic conditions of new families and have a long-term impact on household welfare" (Mr. M, TRADITIONAL LEADERS, IN-DEPTH INTERVIEW</i>

Bōwō as an economic and social resource of the household

Bōwō is understood to be an economic resource that is used by new families for various household needs after marriage. In addition to economic functions, this practice also has a social dimension that strengthens relationships between extended families through kinship networks such as uncles, relatives and other relatives. The findings suggest that *bōwō* not only serves as financial assistance, but also as a symbol of social solidarity that strengthens relationships between families.

"Bo Bōwō wo functions as economic capital, because there are many distribution channels and many recipients, for example, there are those called Sibaya (uncles), iwagu simatua, and there are other families who are bound by honesty brought by men. (MR. W, COMMUNITY LEADER, FGD

"After getting married, then Sibaya and other families who participated in the party, called for them, but were not forced either, they would later give capital, after running out of money from the bride, then Sibaya gave capital as assistance to the bride's family" (MR. E, TRADITIONAL FIGURES, FGD)

This shows that the economic and social values of *bōwō* run simultaneously in the family.

Self-Esteem as a Redistribution Mechanism

Famahale'ō is a mechanism of social redistribution in the kinship system that emerged after the implementation of *bōwō*. This practice is carried out by close relatives, especially uncles (sibaya) in the form of giving money, livestock or social support to the bride and groom. The findings suggest that *Famahale'ō* serves as a reciprocal mechanism that is not only economic, but also reinforces social obligations within large family networks.

"In famahale'ō a pig will be slaughtered, so the zibaya will call the newlyweds to eat at his house, the zibaya will give as a sign of his affection for the newlyweds by giving them 1 pig or cashing in an envelope to them. (MR. T, TRADITIONAL LEADER, IN-DEPTH INTERVIEW)

"The recipient of the bōwō will call the bride back after marriage, and will be given their capital again, from which their health needs are taken", and given the capital of piglets". (MR. E, TRADITIONAL FIGURE, FGD)

"Famahale'ō, so after getting married is called, and given a gift of money, or pigs, there is a benefit, for the newlyweds can cover the debt, it can also be savings". Mrs. K. VILLAGE MIDWIFE, IN-DEPTH INTERVIEW)

Thus, *Famahale'ō* acts as a mechanism for redistributing resources based on kinship norms

The Relevance of Bōwō to Pregnant Women's Health

The results of the study show that the use of *bōwō* for the health of pregnant women has not become the main practice in society, most of the allocation of bowo is still focused on traditional and social needs. However, there is a perception that *bōwō* has the potential to support the fulfillment of nutrition for pregnant women if there is more health-conscious management in the family. This shows that there is a gap between potential and actual practice.

"It's good if bowo is used to help with nutritional needs during pregnancy, there are those who think about pregnant women, if they run out for customs, there is no more, like currently this desire is limited, so if there are traditional leaders like that, it is very good" (Mrs. D. PREGNANT WOMEN, IN-DEPTH INTERVIEW)

"Families are encouraged to manage bōwō so that it can develop, for example through raising livestock such as pigs, which can then be used for basic needs, including health during pregnancy (TN E, TRADITIONAL LEADERS, FGD)

Family Responsibilities in Bōwō Utilization

The decision regarding the use of *bōwō* is entirely in the hands of the extended family, not the individual. Decision-making is influenced by kinship structure, customary norms, funds, economic conditions, and ladders. The findings show that families that receive *bōwō* have authority in determining the allocation of resources, including for consumptive needs and other needs such as debt repayment

"Most of the bōwō is used up for wedding expenses, and in some cases, families are even in debt. But after that, through the role of the uncle (sibaya) and the extended family who receive the bōwō, the bride and groom are called back and given

assistance in the form of money or goods, the funds are then collected and used according to the needs of the family, such as paying debts or other needs, depending on the family's condition." (MR. B, GRANDFATHER, IN-DEPTH INTERVIEW)

"Because the traditional leaders can't decide, it's up to the family." (Mrs. D, PREGNANT WOMAN, IN-DEPTH INTERVIEW)

"It's up to the family, they use it for other purposes, but if they owe it to someone else then they will use it to pay the debt but if there is no debt then it can be used for that and they can keep it". (MR. T, TRADITIONAL LEADER, IN-DEPTH INTERVIEW)

This shows that the decision-making process is collective and based on social norms

Challenges in the Utilization of Bōwō for Nutritional Fulfillment of Pregnant Women

The findings identified several main challenges in the use of *bōwō* for nutrition of pregnant women, first, the priority of using *bōwō* is still dominated by customary needs such as weddings and social obligations, second, socio-economic pressures in meeting cultural expectations reduce the flexibility of resource use, in addition to the fact that there are no practices or norms explicitly directing the use of *bōwō* For the health of pregnant women is an important obstacle in the integration of health aspects

"There is no thought about the cost of pregnancy, again, because what is taken into account is the cost of the party," (Mrs. N, GRANDMOTHER, IN-DEPTH INTERVIEW)

"In some cases, the use of *bōwō* in weddings is considered to be as risky as it is economical because it can cause debt and financial stress for families. Large expenditures on traditional parties can sacrifice the economic conditions of the new family and have a long-term impact on household welfare" (Mr. M, TRADITIONAL LEADERS, IN-DEPTH INTERVIEW)

This suggests that social structures and cultural pressures limit the flexibility of using *bōwō* for health needs

Matrix Coding Query

Tabel 3. Tabel Matrix Coding Query

	Bowo for the welfare of the family	Famahalee as an Opportunity The use of bowo for nutrition of pregnant women	The Relationship of Bowo to the Health of Pregnant Women	Family Responsibility in Utilizing Bowo	Challenges in the use of bowo
Bowo As a kinship system in the allocation of household resources	Yes	Yes	Yes	Yes	Yes

The results of qualitative analysis using matrix coding queries in Nvivo software allow the identification of relationships between key themes that emerge from interview, FGD, and observation data. The Matrix Coding Query table shows how themes such as *bōwō* for family well-being, *famahale’ō* as an opportunity to use *bōwō* for nutrition for pregnant women, family responsibility in the use of *bōwō*, and challenges in the use of *bōwō* interact in the context of kinship systems.

Based on this linkage, a conceptual framework diagram was constructed, which visualizes the flow of *the distribution of bōwō* through *famahale’ō* towards two main paths: allocation for the nutritional needs of pregnant women and allocation for ceremonial/customary needs. This diagram shows how *bōwō allocation decisions* are influenced by socio-cultural dynamics, kinship norms, and family responsibilities, which ultimately impact the family's well-being and maternal nutritional status.

DISCUSSION

Bōwō as economic, social, cultural, and symbolic capital (Bourdieu framework)

The findings of this study show that it not only functions as a traditional dowry but is a form of accumulation and conversion of various capital in the perspective of Pierre Bourdieu. Explicitly, *bōwō* presents economic capital because it consists of material resources such as money, gold, and fat that can be used to meet household needs, including the health of pregnant women. In line with the results of research that found that dowry can be converted into productive assets that support household economic resilience and increase women's financial independence (26).

As found in previous research, women in dowry marriages may lack adequate material and nutritional support (17). This is different from the practice of dowry in Manggarai (NTT), where the bride's property is interpreted more as a symbol of respect and social status, but it is often an economic burden that reduces the welfare of the family (27).

Based on the theory. Social capital refers to the resources obtained from the network of social relationships owned by individuals in a group. *Bōwō* also functions as social capital, because it strengthens the kinship network between extended families through a reciprocal mechanism involving uncles (*sibaya*) and other relatives. This network becomes a channel for the redistribution of resources through the practice of *famahalō'ō*, which strengthens social cohesion in society. This is in line with Bourdieu (1986) the findings of those who assert that participation in structured social groups can improve healthy behaviours in adults as well (28, 29) as as explained by Luo et al., (2024), social capital plays an important role in influencing the utilization of basic health services by migrants in China (30). Utilizing nutritional behaviour change communication interventions through women's groups shows that the delivery of nutrition messages through community networks is able to strengthen dietary knowledge and practices at the household level (31). Research in Ethiopia found that marital status is an aspect of social capital, where married families tend to prepare and consume more diverse foods, as well as have access to income (32).

In terms of cultural capital, *bōwō* reflects customary norms, marriage values, and cultural legitimacy structures that govern the amount and form of dowry. Meanwhile, symbolic capital is reflected in the social status and honor of the family resulting from the implementation of *bōwō* where the social value of marriage becomes prestige in society (15).

Thus, *bōwō* works as a multi-modal system of interdependent capital, as explained where economic, social, cultural and symbolic capital does not stand alone but reinforce each other in the social structure (28).

Famahalō'ō as a mechanism of cultural redistribution

Famahalō'ō serves as a kinship-based redistribution mechanism that extends the economic cycle of the *bōwō*. The findings of this study show that the practice of *famahalō'ō* serves not only as an economic aid but also as a social mechanism that reorganizes the flow of resources within the network of large families. Furthermore, the practice of *famahale'ō* can be understood as a form of structured social support, where kinship relations are the main channel in the distribution of resources, This is consistent with research Brandl & Colleran, (2024) showing that women's access to resources in the marriage system is greatly influenced by social structures and family relationships (33). In line with the findings, the practice of dowry can increase women's access to resources that contribute to improving women's nutritional status (13).

In Bourdieu's perspective, *Famahalō'ō* can be seen as a mechanism for the conversion of social capital into economic capital, where the obligation of kinship and social solidarity produces material support for the bride and groom. In this context, *Famahalō'ō* can be positioned as a form of cultural-based social intervention that not only strengthens family relationships, but also contributes to the nutritional fulfilment of pregnant women. This suggests that social structures not

only limit, but also facilitate the distribution of resources in rural societies. Traditional cultural practices can serve as instruments that connect individuals with communities, while introducing values that lead to social well-being (34). In contrast to previous studies that tended to place cultural norms as factors influencing nutrition practices during pregnancy (8).

These findings also reinforce the evidence that community-based interventions that utilize local social networks are more effective in improving health behaviours than individual approaches. Studies by Eyasu et al., (2022) and show that social support during pregnancy plays an important role in improving maternal well-being and health (35). In addition, the similarity in the pattern with the cash transfer program shows that the financial support received by pregnant women, both through formal and informal mechanisms, has a significant impact on improving nutritional status (36). However, what distinguishes these findings is that the support does not come from external programs, but rather from the internal cultural mechanisms of the community, which have higher levels of social acceptance (37, 38).

Thus, the main novelty of this study lies in the affirmation that cultural practices such as *Famahalō'ō* do not function as social symbols, but are also repositioned as a health-oriented cultural resource distribution mechanism, particularly in supporting the nutrition of pregnant women (39). Therefore, strengthening this practice through the integration of health education and the involvement of indigenous leaders is an important strategy to ensure that the potential of *bōwō* can be optimally utilized in improving maternal and child health.

Household Decision-Making as a Socially Embedded Practice

The results of the study show that decision-making in the allocation of *bōwō* is not individual, but collective and based on kinship structures and customary norms. Household decision-making is not only economic, but it is also influenced by broader social structures, including norms and relationships within the family (40). These findings are in line with research, which shows that families have a strong influence on health decisions, and nutrition of pregnant women (41). Involving family members increases support for the recommended behaviour. This reinforces the concept that household decisions are socially embedded practices, not individual economic rationality (42).

These findings are in line with previous research showing that social norms and the structure of extended families play an important role in determining resource allocation in rural communities. However, this study expands that perspective by showing that household decisions are also influenced by the conversion of various forms of capital in the *bōwō* system (9). Because the norms of decision-making in the household are embedded in broader social and cultural structures (43).

Implications for Maternal Health Policy

These findings have important significance for culture-based maternal health, the integration of traditional leaders, village midwives, and extended families can be a strategy to optimize the use of *bōwō* in supporting the nutrition of pregnant women. An approach that involves collaboration between community leaders, health workers, and families to ensure that *bōwō* is used for the health benefits of pregnant women. Hence the need to improve the family system in designing effective public health nutrition programs (44). A culture-based approach is necessary because the household decision-making system is heavily influenced by kinship norms and social capital structures, Therefore, interventions that do not consider these social structures are potentially less effective.

Comparison with Existing Studies and Theoretical Contributions

In contrast to previous research that tends to view dowry as an economic or symbolic instrument separately. This study shows that *bōwō* is an integrative system that combines four forms of the Bourdieu model simultaneously. In addition, previous research has highlighted more cultural aspects as a nutritional inhibiting factor. The findings of a study in Ethiopia, which mentioned that unplanned spending on cultural celebrations or traditional ceremonies is one of the factors that cause food shortages. Culture affects all dimensions of food security, food availability, and food stability (45–47),

while this study shows that cultural practices can also function as a resource distribution mechanism that has the potential to support the health of pregnant women through kinship networks.

Novelty of the Study

The main novelty of this research lies in the disclosure of the socio-cultural mechanisms of *bōwō* and *Famahalōō* as kinship-based capital conversion systems that affect the allocation of household resources. This study not only describes the function of culture, but explains how economic, socio-cultural, and symbolic capital interacts in determining pregnant women's health decisions. Accordingly, the research expands the literature by integrating Bourdieu theory into the analysis of local customary practices in the context of rural public health.

Limitations of the study

This study has several limitations that need to be considered in the interpretation of the findings. First, the interview process is carried out using two languages, namely Indonesian and Nias, even though a translator has been used, there may be differences in meaning or interpretation in transferring local concepts and meanings from Nias to Indonesian which can affect the validity of the results. This study has limitations in terms of transferability, because it was only conducted in one village in South Nias Regency. Therefore, these findings are more appropriate as a locally-specific context and cannot be generalized as broad as possible without further research in more diverse regions. Data analysis was carried out by one main coder, so there is potential for subjectivity in the process of coding and interpreting themes, although analysis was carried out using Nvivo12 to improve consistency. There is potential for gender bias, given that most of the data relate to household decision-making and maternal health, which are influenced by certain gender perspectives in the family and community. There is a potential for social desirability bias, because researchers from outside the community and informants may provide answers that are considered more in line with social norms and societal expectations. Cross-sectional design (data retrieval at a single point in time) so that it cannot capture changes in *bōwō* allocation over time.

Conclusion

This study shows that *bōwō* and the practice of *Famahalōō* are socio-cultural systems that play a role in regulating the allocation of household resources in the Nias community, which indirectly has implications for the fulfilment of nutrition of pregnant women, decision-making in the household is not only determined by economic factors, but also by kinship structures, customary norms, and social relations that form the pattern of resource distribution. Based on these findings, pregnant women's health interventions need to be designed with a more contextual and culture-based approach. In terms of policy, the involvement of indigenous leaders is very important in providing social legitimacy for the use of *bōwō* as a resource that can support the health of pregnant women. Indigenous leaders can act as a link between traditional values and public health goals.

It is necessary to strengthen collaboration with village midwives and other health workers such as nutrition officers, health promotion, especially in providing culturally sensitive nutrition education to families of *bōwō* recipients. This approach can help direct the allocation of family resources to focus not only on traditional needs, but also on the health of pregnant women

Furthermore, the integration of cultural-based health education through families, woman groups and local community forums is an important strategy to raise awareness about the more productive use of *bōwō* for maternal and child health, thus a public health approach that considers socio-cultural structures is expected to increase the effectiveness of nutrition interventions in rural areas.

Declarations

Conflicts of Interest

The authors declare no conflicts of interest.

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Author Contribution

N.E.P: Conceptualization, Methodology, Investigation, Data Curation, Formal Analysis, Writing – Original Draft, Visualization, Project Administration.N.J: Supervision, Methodology, Validation, Writing – Review & Editing.M.A: Methodology, Validation, Writing – Review & Editing.T.T: Conceptualization, Validation, Writing – Review & Editing.W.W: Validation, Supervision, Writing – Review & Editing.N.H: Supervision, Validation, Writing – Review & Editing.All authors read and approved the final manuscript.

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Data Availability

The datasets generated and/or analyzed during the current study are not publicly available because they contain information that could compromise participant confidentiality. De-identified data are available from the corresponding author on reasonable request, subject to approval by the relevant ethics committee and applicable institutional regulations.

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Figures

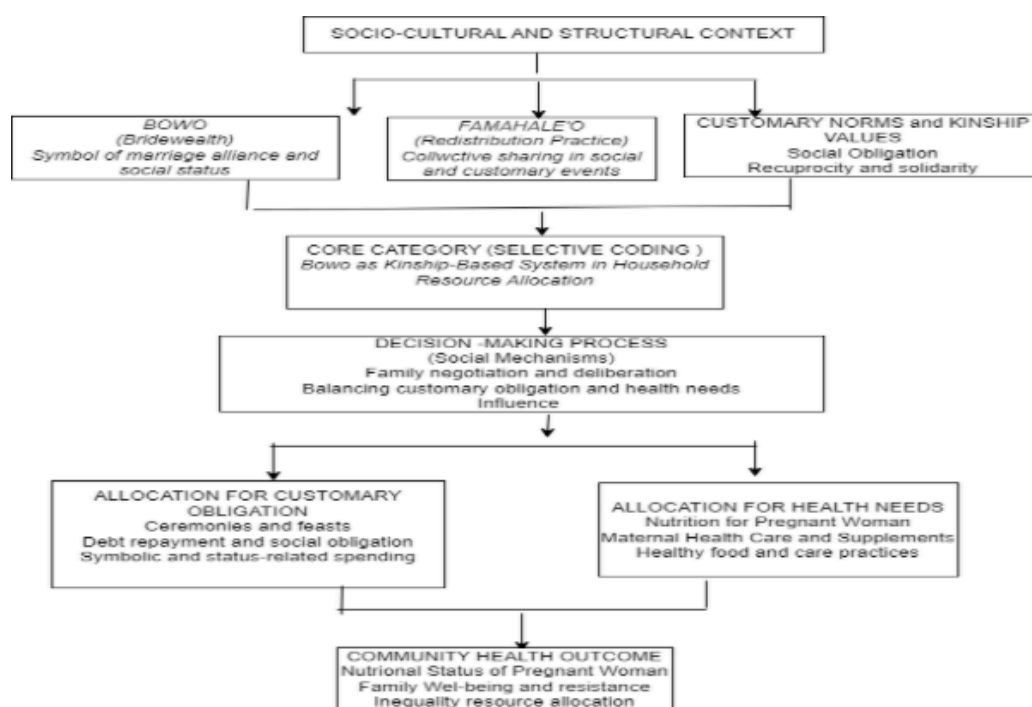


Figure 1

Picture1: Conceptual Framework *Bōwō* and *Famahale'ō* in Household Resource Allocation

Supplementary Files

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- [SupplementaryFile1Semistructuralinterviewanfocusgroupdiscussionguide.pdf](#)