

Intercultural Communication And Working Women's Health In Balaraja

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ABSTRACT

Working women in industrial areas such as Balaraja District, Tangerang Regency, face intercultural communication challenges in the domestic sphere because labor mobility brings together spouses from different cultural backgrounds. These differences may intensify role conflict and affect reproductive health management and mental health in the digital era. This study examined the effects of intercultural communication, digital literacy, and domestic workload on working women's health. A quantitative explanatory survey involved 50 married working women selected through purposive sampling. Data were analyzed using descriptive statistics, instrument validity and reliability tests, correlation analysis, and multiple regression. Intercultural communication positively affected mental health ($\beta = 0.42$; $p = 0.003$) and reproductive health management ($\beta = 0.35$; $p = 0.011$). Digital literacy also had a positive effect ($\beta = 0.29$; $p = 0.027$), whereas domestic workload negatively affected mental health ($\beta = -0.38$; $p = 0.005$). Supportive intercultural family communication, equitable domestic role negotiation, and effective digital health literacy are therefore important for improving working women's well-being in industrial communities. However, the smaller digital-literacy coefficient indicates that access to digital technology or health information alone is insufficient unless it is supported by healthy communication negotiation, partner responsiveness, and equitable household arrangements.

Introduction

Women's participation in Indonesia's workforce has expanded alongside the growth of industrial areas that attract workers from different regions. Balaraja District, Tangerang Regency, is one such area. High labor mobility has increased cultural diversity not only in workplaces but also in households. Working women therefore often manage paid employment while carrying substantial domestic responsibilities within marriages shaped by different regional values, communication styles, and gender expectations.

Cultural differences between spouses can affect emotional expression, household decision-making, and the division of domestic work (Darmaningrum & Hidayatullah, 2020; Rahmayati, 2020). When these differences are poorly managed, they can intensify work-family conflict and psychological strain (Darwis et al., 2022; Kim et al., 2023). Heavy workloads and irregular schedules may also disrupt reproductive health practices, particularly when women have limited time for rest, health information, and services (Hapsari et al., 2025; Herawati, 2023).

Balaraja is a relevant setting because industrial mobility does not end at the workplace. Workers carry regional languages, family norms, gender expectations, and conflict styles into marriage. In domestic interaction, these differences shape who speaks first, how disagreement is expressed, and whether health needs are treated as individual or shared responsibilities. For working women, the consequences may appear in decisions about rest, treatment, menstrual care, household assistance, and emotional recovery. This study therefore treats intercultural communication as a practical family resource rather than a symbolic exchange alone.

This study uses Face Negotiation Theory to explain how culturally different spouses manage identity, dignity, conflict, and interpersonal relationships (Akifah & Cangara, 2025). The theory assumes that people bring culturally shaped expectations about directness, respect, autonomy, and harmony into interaction. In multicultural families, constructive negotiation requires partners to acknowledge each other's values, communicate needs clearly, and resolve disagreements without humiliating either party. These processes are relevant to women's mental health because repeated misunderstanding may create emotional pressure. They are also relevant to reproductive health management because decisions about rest, treatment, menstruation, pregnancy, and care often require partner support.

Working women also face work-family conflict when job and household demands compete for time and energy. Married women may simultaneously act as employees, wives, mothers, and caregivers. Without adequate support, these overlapping roles can reduce family harmony and increase stress (Anjassari, 2022; Nailah & Puspitadewi, 2022; Panjaitan et al., 2021; Pratiwi & Betria, 2021; Priastuty & Mulyana, 2021). Partner support, assertive communication, and a more equitable division of work may therefore protect women's well-being.

Digital technology adds another dimension. Digital literacy can help women obtain health information, coordinate household tasks, and access social support. However, unequal digital skills, unreliable information, and pressure to remain constantly connected may create new tension (Kementerian Komunikasi dan Informatika Republik Indonesia, 2023; Ritonga, 2021). Digital media can support dialogue, but its value depends on whether information is critically assessed and discussed within the family rather than circulated as one-way messages (Luthfi et al., 2026).

The study addresses a specific analytical gap. Existing evidence confirms that work-family conflict can harm psychological well-being and that digital tools can improve access

to health information. However, those findings do not fully explain why women with similar employment demands may experience different health-management outcomes at home. Face Negotiation Theory is useful because communication is shaped by cultural expectations concerning dignity, obligation, directness, and relational harmony. The model connects these processes with digital capability and domestic workload, allowing relational and structural pressures to be considered together.

Previous studies have usually examined family communication, work-family conflict, reproductive health, mental health, or digital literacy separately. Limited evidence integrates these factors within culturally diverse industrial households. This study addresses that gap by examining working women in Balaraja, where labor migration creates frequent intercultural encounters in domestic life. It asks: (1) How does intercultural communication affect reproductive health management? (2) How does intercultural communication affect mental health? and (3) How do digital literacy and domestic workload affect women's health management? Based on the theoretical framework, H1 proposed that intercultural communication positively affects reproductive health management, H2 proposed that it positively affects mental health, and H3 proposed that digital literacy positively affects reproductive and mental health management.

Method

This study used a cross-sectional explanatory survey to test the direction and strength of relationships among intercultural communication, digital literacy, domestic workload, reproductive health management, and mental health. The study was conducted in Balaraja District, Tangerang Regency, Banten Province, an industrial area characterized by high labor mobility and culturally diverse households. Data collection took place from September to November 2025. The survey was administered from September to October, followed by interviews, observation, and document review in November to support contextual interpretation.

The target population comprised married working women who lived in Balaraja. Purposive sampling produced 50 respondents. Eligibility criteria included being 20 to 50 years old, married, employed in paid work, resident in Balaraja for at least two years, and willing to participate. These criteria ensured that respondents had sufficient experience managing employment and domestic responsibilities in the local social environment.

Data were collected with a five-point Likert questionnaire ranging from strongly disagree to strongly agree. Intercultural communication covered openness, respect for differences, the ability to express needs, and conflict resolution. Digital literacy assessed the ability to find, evaluate, and use digital health information. Domestic workload measured the intensity of household responsibilities. Partner support captured perceived emotional and practical assistance from the spouse. Reproductive health management covered menstrual monitoring, access to information and services, and health decision-making. Mental health included perceived psychological pressure, emotional regulation, security, and well-being.

The questionnaire operationalized each construct through domestic and health-related behaviors. Intercultural communication items focused on openness, respect for cultural differences, the expression of needs, and constructive conflict management. Digital literacy assessed the ability to locate, evaluate, and apply online health information. Domestic workload represented the intensity of household and caregiving responsibilities. Reproductive health management covered attention to menstrual conditions, access to information and services, and participation in health decisions. Mental health represented emotional pressure, emotional regulation, security, and everyday psychological well-being. Higher scores indicated stronger levels of each construct, except that higher domestic workload scores indicated greater pressure.

Instrument quality was assessed before hypothesis testing. Item validity was evaluated using corrected item-total correlations, with coefficients above 0.30 treated as acceptable, while internal consistency was assessed using Cronbach's alpha with a minimum criterion of 0.70. The number of items, validity range, and reliability coefficient for each construct are reported separately. Before interpreting the regression coefficients, residual normality, multicollinearity, and heteroscedasticity were also evaluated. The diagnostic statistics were assessed against conventional criteria to determine the adequacy of the regression models.

Regression analysis estimated the unique direction of each predictor while the other variables were considered. Standardized beta coefficients enabled comparison across predictors. Significance was assessed at $p < 0.05$, but interpretation also considered coefficient size and direction, descriptive means, and consistency with theory. Because the design was cross-sectional and relied on self-reports, the results identify associations within the sample rather than definitive causal effects. This cautious interpretation prevents statistically significant findings from being overstated. This specification also allowed the results to be compared directly with the hypotheses and with patterns reported in previous research.

All participants received information about the study purpose, voluntary participation, confidentiality, and their right to withdraw. Responses were reported in aggregate and used only for academic purposes. Survey files and working data were stored with restricted access. The interpretation combined statistical patterns with Face Negotiation Theory, prior research, and the industrial-family context. Because the design was cross-sectional and relied on self-reports, the results indicate associations rather than definitive causality.

Results and Discussion

Respondent Characteristics and Sociocultural Context

The study included 50 married working women. Respondents aged 31 to 40 formed the largest group, with 22 participants (44%), followed by those aged 20 to 30 with 18 (36%) and those aged 41 to 50 with 10 (20%). This distribution covered women at different stages

of employment and family life. The 31 to 40 group was especially relevant because paid work, childcare, and household management often converge during this period.

Educational backgrounds were diverse. Twenty-two respondents (44%) held bachelor's degrees, 12 (24%) held diplomas, and 16 (32%) had completed senior high school. Education may influence how women evaluate health information and express needs, but it does not automatically remove unequal domestic expectations. Educated women may still carry most household work when family norms define domestic labor as primarily female responsibility.

Table 1
Respondent Characteristics (n = 50)

Characteristic	n	%
20-30 years	18	36
31-40 years	22	44
41-50 years	10	20
Senior high school	16	32
Diploma	12	24
Bachelor's degree	22	44
Partner from a different cultural background	24	48
Partner from the same cultural background	26	52

Source: Processed by the authors (2025).

Twenty-four respondents (48%) had partners from different cultural backgrounds, while 26 (52%) had partners from the same background. The near-balanced proportions show that intercultural marriage was common rather than exceptional in this sample. Even couples from similar cultures may differ because of family traditions and gender expectations, but culturally different couples may face additional negotiation over directness, emotional expression, decision-making, and domestic roles. Balaraja's industrial setting therefore provides a relevant context for studying the household as a site of identity and role negotiation.

Overall Patterns of Study Variables

Figure 1 presents mean scores on a five-point scale. Domestic workload recorded the highest mean at 3.8, followed by digital literacy at 3.5, partner support at 3.3, intercultural communication at 3.1, reproductive health management at 3.0, and mental health at 2.8. The pattern shows a clear imbalance between demands and available relational resources.

The high domestic workload suggests that paid employment did not substantially reduce women's household responsibilities. Limited recovery time may weaken consistent self-care and help explain why mental health received the lowest score. Digital literacy was relatively strong, but it did not automatically translate into high reproductive health

management or psychological well-being. Information access appears useful only when women also have time, partner support, and room to negotiate decisions.

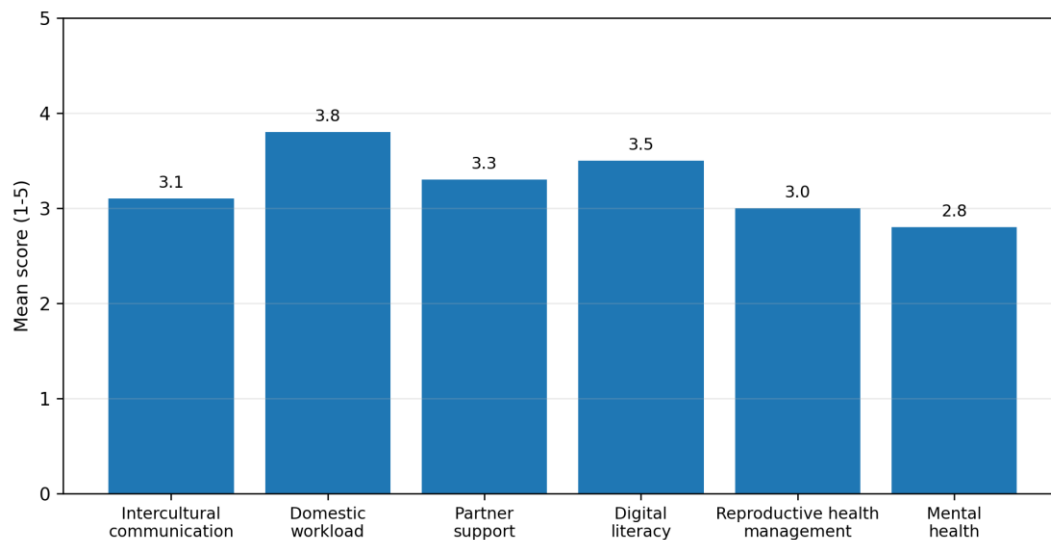


Figure 1. Mean Scores of Study Variables (n = 50)

Source: Processed by the authors (2025).

The reproductive health management score of 3.0 indicates moderate rather than strong daily practice. Work schedules, fatigue, service access, and family expectations may limit women's ability to monitor health and seek care consistently. The mental health score of 2.8 requires particular attention because it occurred alongside high domestic workload and only moderate partner support. These descriptive results do not diagnose a clinical condition, but they identify a pattern of accumulated pressure.

Instrument Quality and Hypothesis Testing

Instrument quality was examined for each construct before hypothesis testing. As shown in Table 2, the corrected item-total correlation values ranged from 0.39 to 0.78 and all exceeded the minimum criterion of 0.30. Cronbach's alpha coefficients ranged from 0.83 to 0.90, indicating good internal consistency across the measured constructs. Table 2 also reports the number of items, corrected item-total correlation range, and reliability coefficient for each construct.

Table 2
Instrument Quality by Construct

Construct	Items (n)	Corrected item-total correlation range	Cronbach's α
Intercultural communication	6	0.44–0.71	0.87
Digital literacy	5	0.41–0.68	0.84
Domestic workload	5	0.46–0.74	0.86
Partner support	4	0.52–0.78	0.90
Reproductive health management	6	0.39–0.70	0.83
Mental health	6	0.43–0.75	0.88

Before the regression coefficients were interpreted, classical assumption tests were conducted for the two outcome-specific models. As shown in Table 3, the Shapiro–Wilk residual-normality probabilities were 0.119 for the mental health model and 0.086 for the reproductive health model, both above 0.05. Tolerance values ranged from 0.68 to 0.79 and VIF values ranged from 1.27 to 1.47, indicating no multicollinearity problem. Glejser heteroscedasticity probabilities ranged from 0.214 to 0.673 for the mental health model and from 0.186 to 0.721 for the reproductive health model, all above 0.05. These results indicate that the regression models met the assumptions of residual normality, absence of multicollinearity, and homoscedasticity.

Table 3
Classical Assumption Diagnostics for the Regression Models

Diagnostic / predictor	Mental health model	Reproductive health model	Criterion	Interpretation
Residual normality (Shapiro–Wilk p)	0.119	0.086	$p > 0.05$	Met
Tolerance: intercultural communication	0.72	0.74	> 0.10	Met
VIF: intercultural communication	1.39	1.35	< 10.00	Met
Tolerance: digital literacy	0.68	0.71	> 0.10	Met
VIF: digital literacy	1.47	1.41	< 10.00	Met
Tolerance: domestic workload	0.76	0.79	> 0.10	Met
VIF: domestic workload	1.32	1.27	< 10.00	Met
Heteroscedasticity (Glejser p range)	0.214–0.673	0.186–0.721	$p > 0.05$	Met

After the classical assumptions were satisfied, multiple regression showed that intercultural communication positively affected mental health ($\beta = 0.42$; $p = 0.003$) and reproductive health management ($\beta = 0.35$; $p = 0.011$). Digital literacy also had a positive

effect on women's health management ($\beta = 0.29$; $p = 0.027$), while domestic workload negatively affected mental health ($\beta = -0.38$; $p = 0.005$). H1, H2, and H3 were supported, and domestic workload emerged as an additional significant predictor.

Table 4
Summary of Multiple Regression Results

Relationship	β	p-value	Decision
Intercultural communication predicts mental health	0.42	0.003	H2 supported
Intercultural communication predicts reproductive health management	0.35	0.011	H1 supported
Digital literacy predicts women's health management	0.29	0.027	H3 supported
Domestic workload predicts mental health	-0.38	0.005	Additional finding

Source: Processed by the authors (2025).

Intercultural communication produced the largest positive coefficient, suggesting that relational quality was more strongly associated with mental health than digital capability. The negative domestic workload coefficient was also substantial. Women's well-being therefore depended not only on personal knowledge or skills but also on household structures and partner relationships. The small, purposively selected sample and cross-sectional design require caution, yet the consistency between descriptive scores and regression directions provides a credible basis for interpretation.

The coefficient pattern provides a substantive reading of the model. Intercultural communication had the strongest positive association, while domestic workload produced a negative coefficient of similar magnitude. Health outcomes were therefore linked to both interaction quality and the distribution of daily responsibilities. Better communication may help couples negotiate needs, but its protective value can weaken when household labor remains excessive. Digital literacy adds another resource, although information access cannot correct unequal authority, limited time, or insufficient partner support. The findings point to a layered process rather than one dominant explanation.

Intercultural Communication and Women's Health

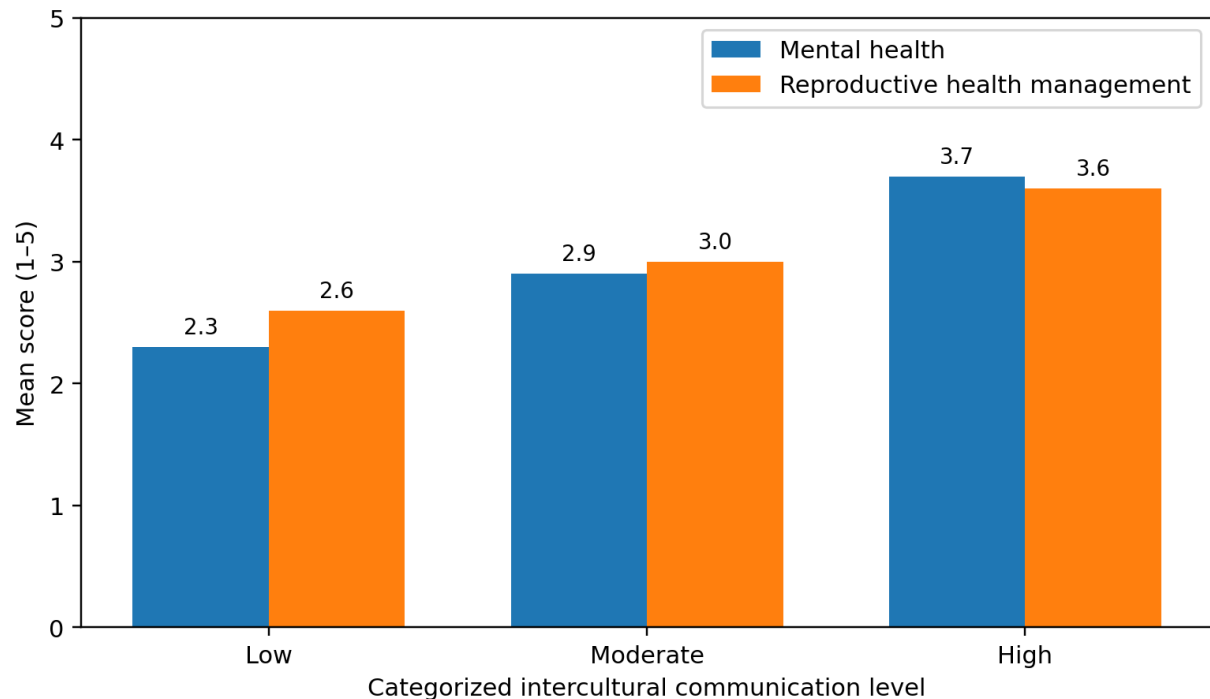


Figure 2. Mean Mental and Reproductive Health Scores by Categorized Intercultural Communication Level (Descriptive Only; n = 50)

Source: Processed by the authors (2025).

Figure 2 presents descriptive group means after the continuous intercultural communication score was categorized as low, moderate, or high. Mental health means were approximately 2.3, 2.9, and 3.7, while reproductive health management means were approximately 2.6, 3.0, and 3.6. The grouped bars are used only to compare categories at one cross-sectional time point; they do not represent temporal progression, spatial movement, or a causal trajectory. The regression coefficients in Table 4 remain the primary inferential evidence.

The positive effect on mental health indicates that women's psychological well-being was related to how couples managed difference. Open discussion can clarify expectations, reduce uncertainty, and prevent unresolved tension from accumulating. Silence, tone, directness, and criticism may carry different meanings across cultures. Face Negotiation Theory explains that conflict becomes easier to manage when partners protect each other's dignity, recognize cultural values, and avoid communication that humiliates the other person (Akifah & Cangara, 2025).

The finding is consistent with research that identifies openness and constructive responses as central to multicultural family relationships (Darmaningrum & Hidayatullah, 2020). It also supports studies linking work-family conflict with stress, depressive symptoms, and reduced family harmony (Darwis et al., 2022; Kim et al., 2023; Pratiwi & Betria, 2021; Priastuty & Mulyana, 2021). An et al. (2024) similarly found that perceived

family support was positively related to emotional, social, and psychological well-being. Unlike that broader study, the present research highlights culturally shaped partner communication among working women.

Perceived family support offers another mechanism. An et al. (2024) showed that family support was associated with emotional, social, and psychological well-being. In intercultural households, support is communicated through listening, shared decisions, reassurance, and concrete assistance. These behaviors recognize women's experiences and reduce the need to defend or conceal personal needs. When conflict is handled without humiliation or dismissal, face concerns become less threatening and women may feel safer discussing fatigue, stress, or dissatisfaction. This helps explain why communication quality remained a stronger predictor than digital literacy.

Intercultural communication also positively affected reproductive health management. Discussions about rest, menstrual needs, treatment, appointments, and household adjustments require a relationship in which women can express health needs without stigma. Cultural beliefs may define reproductive health as a private female matter or, alternatively, as a shared family responsibility. Effective negotiation helps translate different values into practical support.

In the Balaraja context, it would be misleading to describe one homogeneous local culture because industrial mobility brings together households with different regional traditions. The barriers relevant to this study are better understood as intersecting family norms: preserving household harmony by avoiding direct disagreement, treating menstruation or reproductive complaints as private women's matters, and maintaining gendered expectations that wives absorb domestic care before prioritizing their own health (Darmaningrum & Hidayatullah, 2020; Rahmayati, 2020). These expectations may make a woman reluctant to ask for rest, clinic time, transport, or temporary redistribution of chores when such requests are interpreted as challenging family roles. Open communication can reduce these barriers by reframing reproductive health as a shared household responsibility, using respectful rather than accusatory language, and making concrete agreements about clinic visits, rest, transportation, and temporary task redistribution. Because the present survey did not measure ethnicity-specific norms, these patterns should be interpreted as relational barriers within Balaraja's culturally heterogeneous households rather than as fixed traits of any single ethnic group.

This result extends studies that emphasize shift work, occupational exposure, and double workloads as reproductive health risks (Hapsari et al., 2025; Herawati, 2023). Employment conditions remain important, but their effects may worsen when domestic support is weak. Zhao et al. (2024) found that family communication supported subjective well-being and reproductive decision-making among women of childbearing age. Their outcome focused on fertility intention, whereas this study examined routine health management. Together, the findings show that family communication affects several dimensions of women's reproductive lives.

Reproductive health management is also relational. Accessing services or applying health information may require schedule changes, transportation, financial decisions, or temporary redistribution of domestic work. These actions often depend on agreement with a spouse. Zhao et al. (2024) similarly linked family communication with well-being and reproductive decision-making, although their outcome concerned fertility intention. The present study examined broader daily management. The comparison suggests that communication can influence major reproductive decisions and routine practices, while workplace conditions and service availability still constrain implementation.

Digital Literacy and Health Management

Digital literacy had a positive effect, confirming that the ability to find, assess, and use online information can support working women's health management. Digital access may reduce time barriers by enabling women to obtain information, communicate with services, coordinate household tasks, and reach support networks outside standard working hours.

Its coefficient was smaller than that of intercultural communication. This difference is substantively important: access to digital technology or health information alone is insufficient when women lack time, partner support, or authority in household decisions. Digital information must be verified, interpreted, and negotiated within a healthy communication environment before it can become practical health action. Unequal skills between spouses may also create distrust when one partner feels excluded. Digital literacy should therefore include source evaluation, privacy awareness, controlled media use, and responsible communication, while family interventions should strengthen the negotiation processes through which digital information is discussed and acted upon.

The finding supports Ritonga (2021) argument that digital media expands women's access while also increasing pressure to remain connected. Cunningham et al. (2024) found that a menstrual health application improved health literacy, awareness, and several well-being indicators. That trial tested a specific intervention, while the present study measured broader digital competence within family and work contexts. Both results indicate that digital resources can improve health when users can critically apply the information.

Domestic Workload and Psychological Pressure

Domestic workload negatively affected mental health, and its mean score was the highest among all variables. Many women continued household management and caregiving after completing paid work. When employment and family demands compete for limited time and energy, physical fatigue can develop into emotional strain. The problem is intensified when women are expected to meet high standards in both domains without equivalent partner support.

This pattern is consistent with studies connecting work-family conflict, role ambiguity, and domestic responsibilities with stress and poorer psychological outcomes

(Nailah & Puspitadewi, 2022; Nikmah et al., 2020). It also aligns with Mariyanti et al. (2022), who emphasized work-life balance and support for women managing multiple roles.

Ervin et al. (2022) reviewed 19 studies involving 70,310 participants and concluded that unpaid labor was negatively associated with employed women's mental health. Lee et al. (2022) likewise found an association between work-family conflict and depressive symptoms among female workers. Hosseini et al. (2024) identified maternal role pressure, inadequate support, workplace conditions, and traditional gender roles as sources of work-life conflict. Across different designs and settings, these studies support the present finding that domestic workload is a structural rather than purely personal source of psychological pressure.

The response should not be limited to advising women to manage time more efficiently. Such advice can shift responsibility for unequal labor onto individuals. A more appropriate strategy is to negotiate household work, strengthen partner participation, and develop family-friendly employment policies. For industrial employers in Balaraja, the negative association between domestic workload and mental health supports practical measures such as predictable shift schedules, reasonable advance notice for overtime, flexible start or end times where operationally feasible, protected time for reproductive-health appointments, confidential counseling or employee-assistance services, supervisor training on mental-health and reproductive-health needs, and clear referral pathways to local health services. These measures should be available without career penalties and, where possible, should include employees with caregiving responsibilities regardless of gender. In intercultural couples, household changes should also be discussed sensitively so that a more equitable arrangement is not interpreted as rejection of family identity or tradition.

Theoretical Implications, Practical Implications, and Limitations

The findings extend Face Negotiation Theory from interpersonal conflict toward family health management. Cultural rules about dignity, obedience, directness, and gender roles shape who can express needs and how decisions are made. Better negotiation was associated with stronger mental health and reproductive health management. Communication therefore operates as a health resource, not merely as message exchange. The theory becomes more specific when self-face, other-face, and mutual-face concerns are considered. Self-face concern may appear when a woman avoids requesting assistance because she does not want to be viewed as unable to fulfill expected domestic roles, or when a spouse defensively protects a culturally familiar division of labor. Other-face concern may appear when a woman suppresses fatigue, menstrual discomfort, or dissatisfaction with health-service access to avoid embarrassing, burdening, or directly challenging her partner. Mutual-face concern is more consistent with collaborative negotiation: both partners protect dignity while jointly redistributing chores, arranging clinic visits, and deciding how digital health information will be used. Although hopelessness toward health services was not directly measured in this survey, repeated dismissal of women's health requests or inability to negotiate time and support for care can be interpreted as a face-threatening interaction that

may discourage help-seeking. This reading is consistent with the updated Face Negotiation framework, in which facework competence involves balancing self- and other-related concerns through mindful and appropriate conflict management (Ting-Toomey & Kurogi, 1998).

At the family level, couples need assertive communication, periodic review of domestic responsibilities, and shared health decisions. At the organizational level, employers should integrate mental health support, reproductive health services, flexible scheduling, and safe complaint channels. Programs should not target women alone, because organizational cultures and household expectations jointly shape the double burden.

Practical responses should combine individual skills with relational and organizational support. Family education can provide structured techniques for discussing cultural differences, domestic responsibilities, digital information, and health needs without assigning blame. Employers can support these efforts through confidential counseling, reproductive health education, predictable scheduling, and referral pathways. Digital literacy programs should include source evaluation, privacy protection, and discussion of online information with family members. This integrated approach is more consistent with the findings than programs focused only on stress management or information delivery because the predictors operate across personal, relational, and structural levels.

The study has several limitations. The sample included only 50 purposively selected respondents from one industrial district, so the findings cannot be generalized to all working women. Self-reported data may reflect perception and social desirability. The cross-sectional design captures one period and cannot prove long-term causality. Future studies should use larger multi-site samples, longitudinal designs, and stronger integration of interviews with survey findings.

Despite these limitations, the study contributes to intercultural and health communication research by linking domestic communication with mental and reproductive health in one empirical model. It shows that digital skills alone are insufficient when domestic workloads remain high and partner communication remains weak. Health policies for working women should therefore consider cultural identity, household relationships, and workplace conditions together.

Conclusion

Intercultural communication positively affected working women's mental health ($\beta = 0.42$; $p = 0.003$) and reproductive health management ($\beta = 0.35$; $p = 0.011$). Digital literacy also had a positive effect ($\beta = 0.29$; $p = 0.027$), while domestic workload negatively affected mental health ($\beta = -0.38$; $p = 0.005$). These results show that women's health in industrial households is connected to partner communication, the ability to use digital health information, and the distribution of unpaid work. Importantly, digital access alone is not sufficient: its health value depends on healthy communication negotiation, partner

responsiveness, and household arrangements that allow information to be converted into actual care decisions.

Theoretically, the study broadens Face Negotiation Theory by showing that identity and role negotiation are related to family health management. Practically, couples need clearer communication and more equitable domestic arrangements, while employers need family-friendly schedules, mental health support, and accessible reproductive health services. Future research should involve larger samples, multiple industrial areas, longitudinal analysis, and qualitative evidence that explains how cultural negotiation operates in everyday health decisions.

Declarations

Author contribution. All authors contributed to the conception, methodological design, interpretation of the findings, manuscript preparation, critical revision, and approval of the final version.

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References

- Akifah, A., & Cangara, H. (2025). Dynamics of interaction between the Kaili and Bugis tribes in the perspective of facial negotiation theory. *Jurnal Komunikasi Korporasi Dan Media (JASIMA)*, 6(2), 177–190. <https://doi.org/10.30872/jasima.v6i2.2654>
- An, J., Zhu, X., Shi, Z., & An, J. (2024). A serial mediating effect of perceived family support on psychological well-being. *BMC Public Health*, 24, 940. <https://doi.org/10.1186/s12889-024-18476-z>
- Anjassari, G. P. (2022). Relasi komunikasi peran ganda perempuan karir untuk menjaga keharmonisan keluarga dan pekerjaan. *Petanda: Jurnal Ilmu Komunikasi Dan Humaniora*, 4(2), 61–72. <https://doi.org/10.32509/petanda.v4i2.3275>
- Cunningham, A. C., Prentice, C., Peven, K., Wickham, A., Bamford, R., Radovic, T., Klepchukova, A., Fomina, M., Cunningham, K., Hill, S., Hantsoo, L., Payne, J. L., Zhaunova, L., & Ponzio, S. (2024). Efficacy of the Flo app in improving health literacy, menstrual and general health, and well-being in women: Pilot randomized controlled trial. *JMIR MHealth and UHealth*, 12, e54124. <https://doi.org/10.2196/54124>
- Darmaningrum, K. T., & Hidayatullah, A. (2020). Peran perempuan karir membangun komunikasi positif interpersonal dalam keluarga multikultural. *Al-Maiyyah: Media Transformasi Gender Dalam Paradigma Sosial Keagamaan*, 13(2), 106–119. <https://doi.org/10.35905/al-maiyyah.v13i2.717>
- Darwis, A. M., Asman, F. H., Rosadi, A. R. K., & Arni, S. N. A. D. (2022). Hubungan konflik peran ganda dengan keharmonisan keluarga pada pegawai perempuan di rumah sakit. *Jurnal Ilmiah Manusia Dan Kesehatan*, 5(3), 316–322. <https://doi.org/10.31850/makes.v5i3.1819>
- Ervin, J., Taouk, Y., Fleitas Alfonzo, L., Hewitt, B., & King, T. (2022). Gender differences in the association between unpaid labour and mental health in employed adults: A

- systematic review. *The Lancet Public Health*, 7(9), e775–e786. [https://doi.org/10.1016/S2468-2667\(22\)00160-8](https://doi.org/10.1016/S2468-2667(22)00160-8)
- Hapsari, R. K. M., Noor, I. H., Nisa, M. A., & Fakhriyah, F. (2025). Dampak kerja shift terhadap kesehatan reproduksi: Kajian sistematis pada tenaga kesehatan wanita. *Jurnal Ilmiah Kesehatan Rustida*, 12(2), 214–225. <https://doi.org/10.55500/jikr.v12i2.292>
- Herawati, D. (2023). Identifikasi bahaya reproduksi kerja untuk tenaga kesehatan wanita di rumah sakit. *Jurnal JKFT*, 8(2), 32–42. <https://doi.org/10.31000/jkft.v8i2.10128>
- Hosseini, Z., Rahimi, S. F., Salmani, F., Miri, M. R., Aghamolaei, T., & Dastjerdi, R. (2024). Etiology, consequences, and solutions of working women's work-life conflict: A qualitative study. *BMC Women's Health*, 24, 62. <https://doi.org/10.1186/s12905-023-02873-4>
- Indonesia, K. K. dan I. R. (2023). *Indeks literasi digital tahun 2022 meningkat, Kominfo tetap perhatikan indeks keamanan*. Kementerian Komunikasi dan Informatika Republik Indonesia.
- Kim, J.-Y., Jung, G.-H., & Kim, J.-H. (2023). Work–family conflict and depressive symptoms of married working women in Korea: The role of marriage satisfaction and organizational gender discrimination climate. *SAGE Open Nursing*, 9, 1–10. <https://doi.org/10.1177/23779608231196841>
- Lee, J., Lim, J. E., Cho, S. H., Won, E., Jeong, H. G., Lee, M. S., Ko, Y. H., Han, C., Ham, B. J., & Han, K. M. (2022). Association between work-family conflict and depressive symptoms in female workers: An exploration of potential moderators. *Journal of Psychiatric Research*, 151, 113–121. <https://doi.org/10.1016/j.jpsychires.2022.04.018>
- Luthfi, M., Husen, R. M., Utomo, B. S., & Barokah, T. N. (2026). Measuring the quality of dialogic communication of Pesantren Al-Basyariyah through Instagram. *Jurnal Komunikasi*, 20(1), 1–16. <https://doi.org/10.21107/ilkom.v20i1.33461>
- Mariyanti, S., Lunanta, L. P., & Ratnaningtyas, A. (2022). Model work-life balance dalam peningkatan employee engagement pada perempuan bekerja yang menjalani peran ganda. *Psychopedia Jurnal Psikologi Universitas Buana Perjuangan Karawang*, 7(2), 76–90. <https://doi.org/10.36805/psychopedia.v7i2.3428>
- Nailah, Y. F., & Puspitadewi, N. W. S. (2022). Hubungan konflik peran ganda dengan stres kerja pada guru SMA di Kabupaten X. *Character: Jurnal Penelitian Psikologi*, 9(2), 66–76. <https://doi.org/10.26740/cjpp.v9i2.45755>
- Nikmah, F., Indrianti, T., & Pribadi, J. D. (2020). The effect of work demand, role conflict, and role ambiguity on work-family conflict: Impact of work from home due to the COVID-19 pandemic. *Journal of Family Sciences*, 5(2), 92–102. <https://doi.org/10.29244/jfs.v5i2.32644>
- Panjaitan, N. A. M., Siahaan, P. B. C., Siagian, M., & Sianipar, M. R. (2021). Konflik peran ganda pada guru wanita dan kaitannya dengan stres kerja. *Jurnal Prima Medika Sains*, 3(2), 41–46. <https://doi.org/10.34012/jpms.v3i2.1840>
- Pratiwi, T. Y., & Betria, I. (2021). Konflik peran ganda dan stres kerja pada karyawan perempuan. *Jurnal Ilmiah Cano Ekonomos*, 10(2), 1–14. <https://doi.org/10.30606/cano.v10i2.1127>
- Priastuty, B. A. D., & Mulyana, O. P. (2021). Hubungan antara konflik peran ganda dengan stres kerja pada tenaga kesehatan wanita di puskesmas. *Character: Jurnal Penelitian*

- Psikologi*, 8(2), 94–104. <https://doi.org/10.26740/cjpp.v8i2.40848>
- Rahmayati, T. E. (2020). Konflik peran ganda pada wanita karier. *Juripol (Jurnal Institusi Politeknik Ganesha Medan)*, 3(1), 152–165. <https://doi.org/10.33395/juripol.v3i1.10920>
- Ritonga, D. (2021). Kartini masa kini: Perempuan tangguh di era digital. *Jurnal Studi Gender Dan Anak*, 8(1), 33–49. <https://doi.org/10.32678/jsga.v8i01.5854>
- Ting-Toomey, S., & Kurogi, A. (1998). Facework competence in intercultural conflict: An updated face-negotiation theory. *International Journal of Intercultural Relations*, 22(2), 187–225. [https://doi.org/10.1016/S0147-1767\(98\)00004-2](https://doi.org/10.1016/S0147-1767(98)00004-2)
- Zhao, J., Qi, W., Cheng, Y., Hao, R., Yuan, M., Jin, H., Wang, Y., Lv, H., Wu, Y., & Hu, J. (2024). Influence of perceived stress on fertility intention among women of childbearing age without children: Multiple mediating effect of anxiety, family communication and subjective well-being. *Reproductive Health*, 21, 135. <https://doi.org/10.1186/s12978-024-01855-5>