**Original Article**

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# Social Determinants of Anxiety and Depression among Wives of Men Living or Working Abroad: A Cross-sectional Study in Sylhet, Bangladesh

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## Abstract:

**Background:** Migration of husbands for employment abroad is a common social phenomenon in Bangladesh, particularly in the Sylhet region, with potential implications for the mental health of their wives.

**Objective:** To assess the prevalence of anxiety and depression among wives of men working abroad and to identify associated social risk factors.

**Methods:** This cross-sectional observational study was conducted among 208 married women whose husbands had been living abroad for at least one year. Participants were assessed using the Mini-Mental State Examination (MMSE) for anxiety and depression. Social and demographic variables, including remittance status, frequency of contact, visits, family support, and acceptance of the husband's absence, were analyzed for possible associations with mental health outcomes.

**Results:** The mean age of participants was 31.95 ± 6.84 years, with the majority (73.6%) residing in Sylhet district; 35.6% of husbands were employed in the Middle East. Overall, 48.6% of women had anxiety, 42.6% had depression, and 8.8% had both. Irregular and inadequate remittance (OR 3.675, 95% CI: 2.200–6.138, $p < 0.001$) and low acceptance of husbands staying abroad (OR 4.388, 95% CI: 2.695–7.144, $p < 0.001$) were significant predictors of anxiety. For depression, irregular and inadequate remittance (OR 1.859, 95% CI: 1.123–3.080, $p = 0.015$) and low acceptance of husbands' absence (OR 7.231, 95% CI: 4.318–12.111, $p < 0.001$) were risk factors, while extended family support was protective (OR 0.360, 95% CI: 0.189–0.686, $p = 0.001$).

**Conclusion:** Anxiety and depression are highly prevalent among wives of men working abroad. Financial insecurity and difficulty accepting prolonged spousal separation significantly contribute to psychological distress, whereas support from extended family mitigates depressive symptoms. Targeted psychosocial interventions and stable financial support mechanisms may help reduce mental health burdens in this vulnerable group.

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## Introduction:

Since the early decades of the 20th century, male migration from Sylhet, a north-eastern region of Bangladesh, to foreign countries in pursuit of economic opportunities has been a persistent socio-demographic phenomenon.[1]

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This pattern, often involving the prolonged absence of husbands and fathers, has given rise to substantial psychosocial challenges for the family members who remain behind, particularly women.[2] Existing literature and recent empirical findings from the region indicate a disproportionately high prevalence of anxiety

and depressive symptoms among the wives of migrant workers.[3] Furthermore, these women frequently present with diverse somatic complaints that are closely linked to underlying psychological distress.[4]

Wives of men working abroad face multiple social risk factors for anxiety and depression, including social isolation, increased caregiving responsibilities, financial insecurity, role overload, reduced decision-making power, family conflict, stigma, domestic violence, parenting stress, uncertainty over the husband's return, limited access to healthcare, low community support, and poor communication with the spouse.[2,5] Protective factors such as strong family networks, reliable remittances, regular meaningful contact, and access to mental-health resources can help mitigate these risks, while targeted screening, community support groups, financial counselling, education, and accessible mental-health services may serve as useful interventions.[6]

In light of the rising medical and social concerns resulting from the emotional and relational strain imposed on separated families, this study seeks to explore the social determinants that may function as risk factors for anxiety and depression in this vulnerable subset of the female population.

## Materials and methods

This cross-sectional observational study was conducted in both the inpatient and outpatient departments of Sylhet Women's Medical College from July 2021 to December 2022. Ethical approval was obtained from the Institutional Review Board (IRB). A total of 270 married women, whose husbands had been living or working abroad for at least one year, were initially recruited through consecutive sampling. All participants were screened using the Mini-Mental State Examination (MMSE) to assess the presence of anxiety and/or depression. Those found to have any degree of these mental health conditions were subsequently included in the study.

Exclusion criteria included non-consenting individuals; women with a prior diagnosis of anxiety or depression before marriage or before the husband's migration; those suffering from chronic or debilitating illnesses such as malignancy, systemic lupus erythematosus, rheumatoid arthritis, tuberculosis, thyroid dysfunction, or diabetes mellitus; pregnant women; and those who had recently experienced a major stressful life event. After applying these criteria, 208 participants who provided informed written consent were finally enrolled in the study (Figure 1). A comprehensive history taking, physical examination, and relevant investigations were conducted for every participant in accordance with hospital protocol.

Data were collected and recorded using a pre-structured questionnaire that explored fourteen potential social risk factors (Table 1) that might contribute to the development of anxiety and/or depression among the participants. The 39 participants, who did not have any anxiety or depression on MMSE and were thus initially excluded, were also subjected to inquiry with the questionnaire for calculating the odds ratio. The study assessed thirteen potential social risk factors for anxiety and/or depression among wives of men working abroad, including the husband's job status and length of stay overseas, frequency and recency of visits, number of children, co-residence with in-laws, regularity and adequacy of remittances, frequency of telephone contact, control over family finances, support from extended family, the participant's perceived mental stress and physical ailments, and her level of acceptance of the husband's absence. Data were analyzed with SPSS (version 25), and results with a p-value of 0.05 or less at a 95% Confidence Interval were considered significant.

**Figure 1: Flowchart of recruitment**

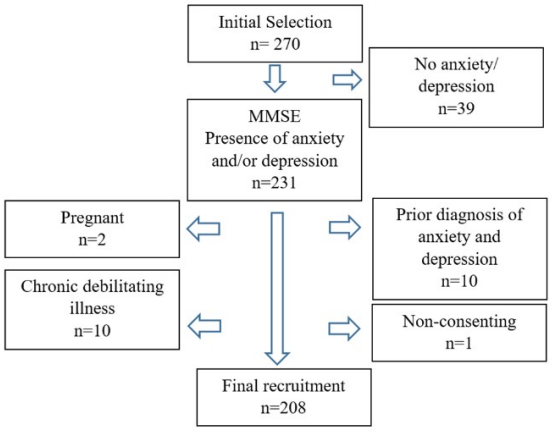

**Table 1: Potential social risk factors contributing to anxiety and/or depression of the wives[1,5]**

| | Risk factor | | Risk factor |
|---|---|---|---|
| **1** | Job status of husband abroad | 8. | Frequency of telephone conversation |
| **2** | Duration of husband staying away | 9. | Person in-charge of financial matters of the family |
| **3** | Frequency of visit by husband | 10. | Degree of support from extended family members |
| **4** | Time elapsed since last visit by husband | 11. | Participant's perception of mental stress |
| **5** | Number of children | 12. | Participant's perception reason behind stress |
| **6** | Living with in-laws or not | 13. | Participant's perception of physical ailment |
| **7** | Regularity and adequacy of remittances | 14. | Participant's acceptance of husband's living abroad |

## Results:

The mean age of participants was 31.95±6.84 years, and the majority (73.6%) of them were from Sylhet district, and most (35.6%) of the husbands were working in the Middle East. Of the participants, 48.6% had anxiety, 42.6% had depression, and 8.8% had both anxiety and depression according to MMSE scoring. There was no significant difference (Figure 2) in the mean anxiety (20.87±5.11) and depression (20.27±5.54) scores (chi-square test result was 1.6268, p-value 0.20214) among participants. Irregular and inadequate remittance (OR 3.675, 95% CI: 2.2 to 6.138, p = <0.001) and, low acceptance of husband staying away (OR 4.388, 95% CI: 2.695 to 7.144, p = <0.001) were two significant social risk factors for anxiety disorder among wives of husband living abroad whereas other social parameters showed to be insignificant (Table 2; Figure 3). Odds ratios showed that support from extended family members was protective for depression (OR 0.360, 95% CI: 0.189 to 0.686, p = 0.001). On the other hand, irregularity and inadequacy of remittance (OR 1.859, 95% CI: 1.123 to 3.080, p = 0.015) and low acceptance of husband staying away (OR 7.231, 95% CI: 4.318 to 12.111, p = <0.001) were significant risk factors for depression (Table 3; Figure 4). The tables (Table 2 and Table 3) and the forest charts (Figure 3 and Figure 4) show that other potential risk factors did not have any significant impact on the mental health of participants in terms of anxiety and depression.

**Figure 2: Mean score for anxiety and depression among participants**

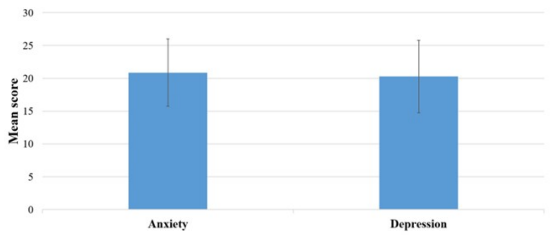


**Table 2: Statistical significance of different risk factors for anxiety among participants**

| *Factor* | *Odds Ratio* | *Lower CI* | *Upper CI* | *p-value* |
|---|---|---|---|---|
| **Perception of mental stress** | 1.865 | 0.624 | 5.57 | 0.304 |
| **Frequency of home visit** | 1.302 | 0.731 | 2.319 | 0.385 |
| **Support from extended family** | 1.225 | 0.606 | 2.476 | 0.608 |
| **Financial responsibility** | 0.817 | 0.423 | 1.579 | 0.627 |
| **Regularity in communication** | 0.699 | 0.34 | 1.437 | 0.361 |
| **Living with in laws** | 1.317 | 0.83 | 2.092 | 0.280 |
| **Number of children** | 1.135 | 0.56 | 2.304 | 0.855 |
| **Length of husband being away** | 1.355 | 0.779 | 2.358 | 0.326 |
| **Regular and adequate remittance*** | 3.675 | 2.2 | 6.138 | <0.001 |
| **Acceptance of husband staying away**** | 4.388 | 2.695 | 7.144 | <0.001 |
| **Husband doing regular job** | 0.834 | 0.316 | 2.206 | 0.715 |
| **Perception of physical ailment** | 1.261 | 0.671 | 2.369 | 0.471 |
| **Visit within one year** | 0.76 | 0.411 | 1.404 | 0.38 |

***Irregularly sending money causes Anxiety disorder (OR 3.675, 95% CI: 2.2 to 6.138, p = <0.001)***
****Low acceptance of husband staying away causes Anxiety disorder (OR 4.388, 95% CI: 2.695 to 7.144, p = <0.001)***

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**Table 3: Statistical significance of different risk factors for depression among participants**

| *Factor* | *Odds Ratio* | *Lower CI* | *Upper CI* | *p-value* |
|---|---|---|---|---|
| **Perception of mental stress** | 1.044 | 0.537 | 2.03 | 0.093 |
| **Frequency of home visit** | 1.385 | 0.782 | 2.452 | 0.263 |
| **Support from extended family*** | 0.360 | 0.189 | 0.686 | 0.001 |
| **Financial responsibility** | 0.809 | 0.424 | 1.543 | 0.519 |
| **Regularity in communication** | 1.242 | 0.605 | 2.551 | 0.555 |
| **Living with in laws** | 0.719 | 0.447 | 1.156 | 0.173 |
| **Number of children** | 1.655 | 0.84 | 3.258 | 0.142 |
| **Length of husband being away** | 0.909 | 0.525 | 1.571 | 0.731 |
| **Regular and adequate remittance**** | 1.859 | 1.123 | 3.08 | 0.015 |
| **Acceptance of husband staying away ***** | 7.231 | 4.318 | 12.111 | <0.001 |
| **Husband doing regular job** | 1.715 | 0.622 | 4.788 | 0.29 |
| **Perception of physical ailment** | 1.053 | 0.561 | 1.977 | 0.872 |
| **Visit within one year** | 0.649 | 0.347 | 1.216 | 0.176 |

***Support from extended family members is protective for depression (OR 0.360, 95% CI: 0.189 to 0.686, p = 0.001); **Irregularity and inadequacy of remittance causes significant depression (OR 1.859, 95% CI: 1.123 to 3.080, p = 0.015); ***Low acceptance of husband staying away causes significant depression (OR 7.231, 95% CI: 4.318 to 12.111, p = <0.001).***

**Figure 3: Odds ratio of different risk factors for anxiety**

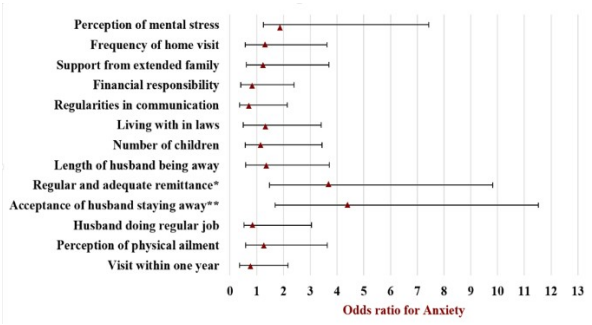
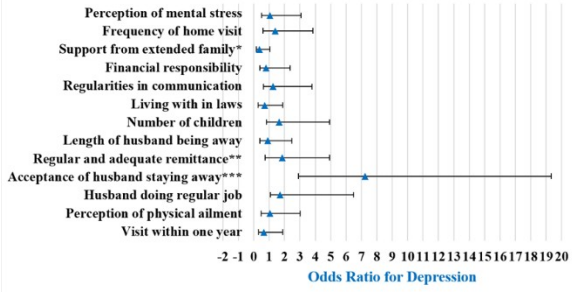



**Figure 4: Odds ratio of different risk factors for depression**




## Discussion

It is quite obvious from meta-analyses that strains imposed by family separation play important role in impacting mental health on parties on both sides. However, wives left behind by men working abroad suffer from greater mental health issues.[7] This study explored the social risk factors for anxiety and depression among wives of men working abroad from Sylhet. The findings highlight that irregular and inadequate remittances, along with a low level of acceptance of the husband's migration, were strongly associated with both anxiety and depressive disorders among wives of migrant men. The observed relationship between financial insecurity and psychological distress is consistent with prior literature indicating that financial strain is a central determinant of mental health outcomes in migrant families. Unpredictable or insufficient remittances create uncertainty in meeting daily household expenses, educational needs of children, and healthcare costs, which can intensify stress and feelings of helplessness.[8] Attention should be drawn to the finding that extended family support had a protective effect against depression, underscoring the crucial social role of surrounding members in providing reassurance and stability. Furthermore, the present study reinforces the view that stable and adequate financial support is not merely an economic necessity but also a vital determinant of mental health for spouses left behind.[5,6,9]

Equally important is the role of acceptance of migration. Wives who exhibited lower acceptance of their husbands' long-term absence had markedly higher odds of both anxiety and depression. This may be explained by emotional loneliness, disruption of marital companionship,

and a perceived lack of shared responsibility in family life. Acceptance, therefore, appears to be a psychological buffer that allows some women to adapt better to the challenges of separation. Culturally sensitive counseling and awareness programs may help enhance resilience and adaptive coping in this population.

Consistent with Treena *et al*,[2] spousal separation is a key determinant of psychological distress among left-behind wives in Bangladesh. Moreover, our findings that irregular remittances and low acceptance of husband's absence exacerbate anxiety and depression align with Sultana *et al,* who identified financial strain and low social support as critical risk factors among Bangladeshi migrants.[10] The meta-analysis by Hasan *et al*[7] further highlights the role of social support as a protective buffer across diverse migrant populations, affirming our result that extended family networks mitigate depression. Additionally, Islam *et al* reveal that migration-related stress and empowerment often coexist, highlighting the complex duality of migration's psychological impacts[6]. Finally, Rahman contextualizes how remittance dynamics reshape family roles[11]- bringing financial relief yet imposing emotional burden on wives- strengthening the socioeconomic dimensions of our findings.

Interestingly, support from extended family members was protective against depression, focusing on the importance of social connectedness. In the absence of a spouse, emotional and practical support from in-laws, relatives, and the wider kinship network can mitigate stress by providing both companionship and assistance with household responsibilities. This finding aligns with previous studies from South Asia where collective family structures often act as a buffer against psychological distress.[12]

Other variables such as duration of migration, frequency of visits, and number of children were not significantly associated with either anxiety or depression. This may reflect the complex interplay of cultural expectations, adaptive coping mechanisms, and variability in individual resilience. It also suggests that psychosocial risk factors are not determined solely by objective measures (e.g., time away) but rather by subjective perceptions of support, financial security, and acceptance.

From a public health perspective, the findings carry important implications. First, interventions aimed at ensuring regular and adequate remittances may not only reduce economic hardship but also improve the psychological well-being of wives. Second, mental health programs targeting wives of migrant workers should include counseling services to address loneliness and marital adjustment. Finally, strengthening community and extended family support networks could serve as an effective protective strategy against depression.

**Limitations**

Being cross-sectional in design, causal inferences cannot be established. The study relied on self-reported measures, which may be subject to recall bias or underreporting due to social desirability. Furthermore, the findings are specific to Sylhet and may not be generalizable to other cultural or geographic contexts where family structures and coping strategies differ.

**Conclusion:**

In summary, financial insecurity due to irregular and inadequate remittances and low acceptance of the husband's migration were significant social risk factors for anxiety and depression among wives of men working abroad. Conversely, extended family support played a protective role, particularly against depression. These findings highlight the need for multidimensional interventions like economic, psychosocial, and community-based, to support the mental health of women affected by labor migration.

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