

Spousal separation and depression: a study of wives of labor migrants in Nepal

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Abstract

Purpose – Understanding the factors associated with first onset of major depressive disorder (MDD) is important for identifying population at increased risk and informing preventive interventions. This study examined whether husbands' migration was associated with the first onset of MDD among married women in rural Nepal and whether associations differed between international and internal migration.

Design/methodology/approach – The authors analyzed data from 1,899 married women enrolled in the Chitwan Valley Family Study (CVFS), a 20-year prospective panel survey with details on migration and mental health histories. The outcome, MDD, was assessed using a locally validated Nepali version of the World Mental Health Composite International Diagnostic Interview (CIDI 3.0) paired with a life-history calendar. Cox proportional hazards models estimated the association between husbands' migration (international or internal) and their wives' first MDD onset, adjusting for individual, household and community characteristics.

Findings – Women whose husbands accumulated 1–24 months of international (HR= 1.41, 95% CI: 1.18–1.69) or internal migration (HR= 1.32, 95% CI: 1.06–1.64) during the preceding five years had higher hazards of first onset MDD than women whose husbands did not migrate. Associations reversed among women whose husbands accumulated longer durations of migration. The magnitude and direction of the associations were similar for international and internal migration. Higher education, having more children and community group membership were associated with lower hazard, while larger household size increased the hazard.

Practical implications – Wives of migrants represent an important population for depression prevention, early identification and psychosocial support in communities with high levels of labor migration. Integrating preventive mental health services into existing community and primary healthcare programs may help reduce the burden of depression among migration-affected families.

Originality/value – To the best of the authors' knowledge, this is one of the first population-based longitudinal studies to examine the association between husbands' migration and the first onset of MDD among married women using a 20-year prospective cohort. By demonstrating similar associations for internal and international migration, this study suggests that cumulative spousal separation may be a more important factor associated with first onset MDD than migration destination.

Keywords Mental health, Migrant workers, Low and middle income countries, Minority health, Major depressive disorders

Paper type Research paper

(Information about the authors can be found at the end of this article.)

Introduction

Despite growing global burden of depression (Xu *et al.*, 2025), access to effective treatment remains highly limited and unequal, particularly in low-resource settings (Patel *et al.*, 2018). While 1 in 5 individuals in high-income countries receives minimally adequate care, this number drops to just 1 in 27 in low- and middle-income countries (LMICs) (Thornicroft *et al.*, 2017). This disparity is concerning, as depression is now the second-leading cause of years lost to disability globally (GBD 2019 Mental Disorders Collaborators, 2022), with profound social and economic consequences (Patel *et al.*, 2018). Depression is also unequally distributed with women (Jarkas *et al.*, 2024) and socially disadvantaged groups

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at higher risk (Patel *et al.*, 2018). This suggests an urgent need to find ways to identify high-risk groups, understand the mechanisms through which depression develops and intervene to prevent its onset (Herrman *et al.*, 2022).

One population that may be particularly vulnerable to depression is women whose husbands migrate for labor while they remain in the origin household. Although this population is commonly referred to as “left-behind wives,” we instead use the term “wives of migrants” to avoid the connotations of abandonment, disempowerment and passivity that the former implies.

The psychosocial impact of men’s migration among this population has been documented across diverse settings, often framed through key social determinants of mental health including changing gender roles (Ghimire *et al.*, 2021; Rajkarnikar, 2020; Ullah, 2017) and household economic conditions (Hassan and Jebin, 2020; Maharjan *et al.*, 2012). Studies have suggested that male migration may offer benefits for their wives, including increased autonomy, decision-making power and economic opportunities (Ullah, 2017; Koirala, 2023; Kaur, 2018; Manandhar *et al.*, 2023). However, these benefits are not universal and absolute (Ghimire *et al.*, 2021).

At the same time, husbands’ migration may also represent as a major life event that may expose wives to a range of psychosocial stressors. This can include loneliness (Arokkiaraj *et al.*, 2021), stigma associated with spousal separation (Ikuomola, 2015), abuse (Singh, 2018), reduced marital satisfaction (Zheng and Yan, 2025) and increased burden of family care and agriculture (Wu and Ye, 2016; Nguyen *et al.*, 2025). Without adequate preparation or support, these stressors can trigger the onset of depression (Herrman *et al.*, 2022; Hammen, 2018). Importantly, women’s responses to these stressors are unlikely to be uniform. Previous research suggests that individual characteristics such as education (Zheng and Yan, 2025) and ethnicity (Bhirtyal and Wasti, 2021), household status (Nguyen *et al.*, 2025; Bhirtyal and Wasti, 2021) and access to community support (Chukwu *et al.*, 2025) may influence how women experience and ultimately respond to migration-related psychosocial stressors.

These stressors may be particularly pronounced in LMICs like the study site Nepal, where women often have limited autonomy and face restricted access to social and institutional support systems (Ahmed, 2020; Sultana, 2014; Sigdel *et al.*, 2025). In addition, many Nepali labor migrants work under hazardous conditions abroad (Adhikary *et al.*, 2019), increasing emotional strain as wives worry about their spouses’ safety. Migration is also financially burdensome, with many households incurring substantial debt before remittances begin to arrive (Shrestha, 2017), creating additional economic stress for families (Sigdel *et al.*, 2025).

While successful migration may eventually bring financial benefits and social mobility (Ullah, 2017; Ghimire *et al.*, 2021) and improved marital quality (Compernelle, 2021), the mental health consequences of husbands’ migration may vary according to the duration and nature of spousal separation. International migration, for example, is often assumed to be a greater psychosocial stressor as it typically involves a longer periods of separation (Shrestha, 2017) and less frequent communication due to restrictive labor contracts and high travel costs. In contrast, husbands who migrate internally may return home more frequently, providing greater opportunities for ongoing family contact and support. However, this distinction may be less straightforward in Nepal, where migration patterns are diverse and include prolonged international labor migration as well as cyclical migration to neighboring countries and within Nepal (Adhikari *et al.*, 2023). Consequently, whether the mental health consequences of husbands’ migration differ according to migration destination or are more strongly related to cumulative spousal separation remains unclear.

In this study, we examined whether husbands’ migration was associated with the first onset of major depressive disorder (MDD) among married women in rural Nepal. We also examined individual (education and ethnicity), household (number of children and household members) and community (community group membership) characteristics

because previous research suggests that these factors may influence women's vulnerability to migration-related psychosocial stressors through differences in socioeconomic position, household responsibilities and access to social support. Finally, we examined whether these associations differed between international and internal migration or were more strongly related to cumulative spousal separation.

Methods

Study area

This study was conducted in western Chitwan, Nepal, a country with high prevalence of labor migration. Although female migration is increasing in Nepal, migration is still heavily dominated by men (95%) (GON, 2020). Migration of men in Nepal is mostly temporary, on their own, and labor oriented. Historically, men migrated as army recruits (Sharma, 2025) and for seasonal work to India. But since the 1990s, fueled by the growing Middle Eastern oil economy, South-East Asian industrialization and turmoil caused by the Maoist civil war, a huge number of men started migrating to Middle East, Malaysia and South Korea for work (Adhikari *et al.*, 2023). Along with international migration, men also migrate internally, mostly for employment purposes. This pattern of migration has created transnational families where husbands and wives live across different spaces. Our study site Chitwan is a representation of such societies.

Regarding mental health, Nepal is characterized by limited treatment services in spite of a high burden (Rai *et al.*, 2021; Sharma *et al.*, 2024). Structural factors like caste, gender discrimination and violence as well as humanitarian emergencies including conflict and disasters are frequently attributed as leading causes of mental health problems in Nepal (Kohrt *et al.*, 2012; Axinn *et al.*, 2013; Hawes *et al.*, 2016; Kane *et al.*, 2018). Notably, gender and ethnic-based differences on prevalence of mental disorders has been highlighted in Nepal with women and people from historically marginalized communities having greater incidence of mental disorders including depression (Hawes *et al.*, 2016; Shawon *et al.*, 2024).

Data management and analysis

Data for this study comes from the Chitwan Valley Family Study (CVFS), a longitudinal panel study with individual, household and community-level data from 151 neighborhoods in Western Chitwan (Barber *et al.*, 1997). This data set has details on monthly migration and marital history, a life history calendar, household details and life-time history of mental disorders from 10,714 people. For this study, we created a panel data set of 14,647 observations of 1,899 married couples spanning from the year 1997–2017. This incident cohort, comprising wives of both migrant and non-migrant husbands entered the data set in January 1997 or the year they got married and had no prior history of MDD before this entry point. We excluded any women with a history of MDD prior to their date of entry in the study or before marriage. List of variables is shown in Table 1 and described below.

MDD: The main outcome – MDD is constructed as a binary variable and comes from a part of the CVFS study – the World Mental Health Survey – Composite International Diagnostic Interview (WMH CIDI 3.0). WMH CIDI is a fully diagnostic interview administered by lay interviewers using computer-assisted personal interview methods. The tool was rigorously translated and validated in Nepal with a sample of the western Chitwan population, who were not part of CVFS, showing high level of concordance comparable to validation studies in the US and European countries when compared with the gold standard – SCID-IV (Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders-IV) (Ghimire *et al.*, 2013; Scott *et al.*, 2021). This retrospective study, through the help of Life History Calendar reports incidence of seven mental disorders including MDD from the individual's time of birth to the time of interview. Using DSM-IV, the Nepali version of CIDI first screens key disorder symptoms and if positively prompted are assessed for the diagnostic assessment. The CIDI data is paired with the Life History Calendar (LHC) which

Table 1 Definition of variables	
Definition of variables	
<i>Outcome variable</i>	
Major depressive disorder (MDD)	0 = No MDD 1 = First onset of MDD
<i>Predictive and control variables</i>	
International migration months	0 = no international migration in the past five years 1 = 1–24 months of cumulative international migration in the past five years 2 = 25–60 months of cumulative international migration in the past five years
Internal migration months	0 = no internal migration in the past five years 1 = 1–24 months of cumulative internal migration in the past five years 2 = 25–60 months of cumulative internal migration in the past five years
Number of children	Total number of children of the wives of migrants
Number of household members	Total number of individuals residing in the same household as the wives of migrants
Ethnicity	1 = High caste Brahmin-Chhetri 2 = Hill Janajati 3 = Dalit 4 = Terai Janajati
Group membership	0 = No group membership 1 = Membership in a group
Education	0 = Not passed SLC 1 = Has completed SLC

helps in detecting the actual year of onset of mental disorder with high accuracy. The pairing of CIDI-LHC has proven to be effective in accurately measuring lifetime experience with mental disorders thus validating both onset and timing of MDD (Axinn *et al.*, 2020).

Migration history: The migration variable was constructed based on each individual's place of residence for each month. For each observation, we calculated the cumulative number of months husbands spent in international migration and internal migration during the preceding five years. These variables were categorized as no migration (0 months), 1–24 cumulative months and 25–60 cumulative months separately for international and internal migration.

Sociodemographic variables: Using data on child births and deaths and other household details, we created variables that measure the number of children and household members of each individual for each year. These time-varying variables were lagged by one year.

Ethnicity is a categorical variable with four groups: Brahmin-Chhetri, Hill Janajati, Dalits and Terai Janajati. Group membership and Education are binary variables that measure membership in a local community group (e.g. women's group, mother's group) and receiving a "School Leaving Certificate" (SLC) degree, a nationally standardized exam for passing Grade 10.

Statistical methods

We used time-to-event Cox proportional hazard models with yearly time intervals to estimate the first onset of MDD as a function of husbands' migration, while adjusting for relevant covariates (Cox, 1972). Women entered the risk set at study entry and were followed until the first onset of MDD or were right-censored at divorce, separation, widowhood, the woman's own migration, loss to follow up or the end of follow-up (2017), whichever occurred first. If MDD onset occurred after censoring, it was not included in the analysis.

Three sequential Cox proportional hazards models were fitted (Table 3). Model 1 included migration variables only. Model 2 additionally adjusted for ethnicity and education and finally Model 3 adjusted for number of household members, number of children and

community group membership. As a sensitivity analysis, we combined internal and international migration into a single measure of cumulative migration exposure and refitted the fully adjusted Cox proportional hazards model (Supplementary Table S1). This analysis was conducted to evaluate whether the observed associations were driven primarily by migration destination or by cumulative spousal separation. To account for temporal ordering, the time-varying predictive variables were lagged by one year. All analysis was done in the R using the “survival” and “survminer” packages (R Core Team, 2019).

Ethics

Ethical approval was taken from the University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board (HUM00104171) and the Nepal Health Research Council (Reg. No. 323/2015). Additional approval was taken from University of Washington (STUDY00007441) to use the data set. Verbal and written consent was taken in Nepali from all the participants. For verbal consent, a witness was required followed by the recording of the process. Data was de-identified, stored and analyzed in the secured server of the Institute of Social Research, University of Michigan.

Results

Demographics

The summary of the sample cohort is presented in Table 2. Because this is an unbalanced panel data set and details for individuals are not available for each panel year, we use data from the time of the CIDI administration in 2016–2018 to draw this summary. Almost half of the total sample came from the Brahmin-Chhetri group, followed by Hill Janajati, Terai Janajati and Dalits. Only 22% of the sample had completed their SLC and 25% were associated with a community group. Lifetime prevalence of MDD for the sample was 11%. Median number of children for the sample was 2 and was 5 for number of household members.

Table 2 Characteristics of the sample during the time of CIDI administration 2016–2018

Characteristic	Total sample individual (n = 1,899)
<i>Ethnicity</i>	
Brahmin-Chhetri	830 (43.78%)
Hill Janajati	473 (24.89%)
Dalit	204 (10.71%)
Terai Janajati	392 (20.62%)
<i>Education – SLC pass</i>	
Yes	419 (22%)
No	1,480 (78%)
<i>Group membership</i>	
Yes	474 (25%)
No	1,425 (75%)
<i>Lifetime MDD^a</i>	
Never	1,690 (89%)
Yes	209 (11%)
Median number of household members	5
Median number of children	2

Note(s): ^aLifetime MDD refers to whether MDD has been detected in an individual from birth to the time of CIDI administration. In this study, we end our panel in 2017 for time-lagging and CIDI was administered until 2018. We also exclude cases after widowhood, separation or divorce and when women migrate themselves. So, if MDD happens after these time points, it does not fall under our panel time. Thus, lifetime MDD for our sample is higher (11%) than detected MDD (8.7%) within the panel-time of this study

Husbands' migration and wife's mental health

Table 3 presents three Cox proportional hazard models looking at the association between husbands' migration and onset of MDD among their wives. Model 1 included migration variables only. Model 2 additionally adjusted for ethnicity and education. Model 3 further adjusted for household members, number of children and community group membership.

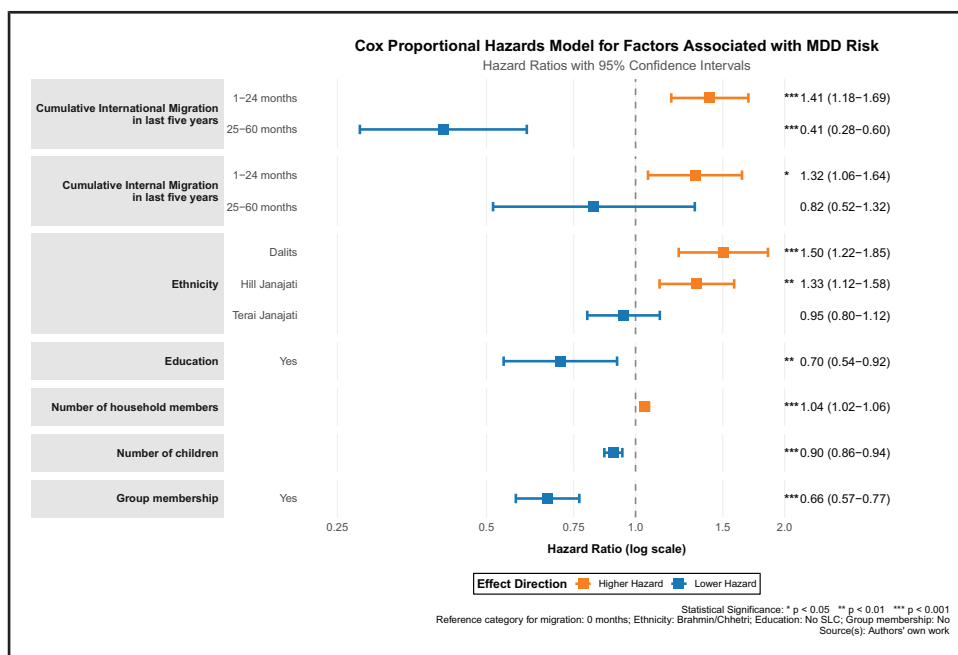
Both international and internal migration were associated with first onset of MDD, and the direction of association remained consistent across the three models. In Model 1, compared with wives whose husbands did not migrate, wives whose husbands accumulated 1–24 months of international migration during the preceding five years had a significantly higher hazard of first onset MDD (HR:1.42, 95% CI:1.19–1.69). Similar associations were observed for internal migration (HR:1.29, 95% CI:1.04–1.60). In contrast, the hazard ratios for wives whose husbands had more than 24 months of migration in the last five years were lower, with statistical significance observed only for international migration (HR: 0.41, 95% CI: 0.28–0.60).

This pattern of association remained in Model 2 after adjusting for ethnicity and education. We found that 1–24 months of cumulative international migration (HR: 1.39, 95% CI: 1.16–1.67) and internal migration (HR: 1.34, 95% CI: 1.08–1.67) remained associated with higher hazards of first onset MDD compared with no migration. International migration of 25–60 cumulative months remained associated with a lower hazard of first onset MDD, while internal migration of 25–60 cumulative months was not statistically significant. As for ethnicity, compared to Brahmin-Chhetri; Hill Janajati (HR: 1.44, 95% CI: 1.22–1.72) and Dalits (HR: 1.53, 95% CI: 1.22–1.88) had higher hazards of first onset MDD and the association was statistically significant. We did not find statistical significance with the Terai Janajati group. Higher education, defined as “completion of SLC,” decreased the hazard of MDD (HR: 0.73, 95% CI: 0.56–0.95), and the association was statistically significant.

Table 3 Hazard model estimates of the association between husband's migration and first onset of MDD on their wives

Variables	Model 1 HR ^{a,b} (CI ^c)	Model 2 HR ^{a,b} (CI ^c)	Model 3 HR ^{a,b} (CI ^c)
<i>Cumulative international migration in past five years</i>			
none (ref)			
1–24 months	1.42*** (1.19, 1.69)	1.39*** (1.16, 1.67)	1.41*** (1.18, 1.69)
25–60 months	0.41*** (0.28, 0.60)	0.40*** (0.27, 0.59)	0.41*** (0.28, 0.60)
<i>Cumulative internal migration in past five years</i>			
None (ref)			
1–24 months	1.29* (1.04, 1.60)	1.34** (1.08, 1.67)	1.32* (1.06, 1.64)
25–60 months	0.86 (0.54, 1.38)	0.85 (0.53, 1.35)	0.82 (0.52, 1.32)
<i>Ethnicity</i>			
Brahmin-Chhetri (ref)			
Dalits		1.53*** (1.24, 1.88)	1.50*** (1.22, 1.85)
Hill Janajati		1.44*** (1.22, 1.72)	1.33** (1.12, 1.58)
Terai Janajati		1.02 (0.86, 1.20)	0.95 (0.80, 1.12)
<i>Education</i>			
No SLC (ref)			
SLC completed		0.73* (0.56, 0.95)	0.70** (0.54, 0.92)
Number of household members			1.04*** (1.02, 1.06)
Number of children			0.90*** (0.86, 0.94)
<i>Group membership</i>			
No (ref)			
Yes			0.66*** (0.57, 0.77)
Note(s): ^a HR = hazard ratio; ^b * <i>p</i> < 0.05; ** <i>p</i> < 0.01; *** <i>p</i> < 0.001; ^c CI = confidence interval			

Figure 1 Cox proportional hazards model of factors associated with first onset of major depressive disorder (MDD) among married women in Nepal



In Model 3, where we adjust for number of household members, number of children and group membership, the direction and statistical significance of association for both international and internal migration remained robust (see Figure 1). In the fully adjusted model, compared with wives whose husbands had no migration during the preceding five years, wives whose husbands accumulated 1–24 months of international migration ($HR = 1.41$, 95% CI: 1.18–1.69) and internal migration ($HR = 1.32$, 95% CI: 1.06–1.64) had higher hazards of first onset MDD. International migration of 25–60 cumulative months was associated with a lower hazard of first onset MDD ($HR = 0.41$, 95% CI: 0.28–0.60) compared with no migration, whereas the association for internal migration of 25–60 cumulative months was also lower but not statistically significant ($HR = 0.82$, 95% CI: 0.52–1.32). For the control variable, association in a community group decreased the hazard of MDD (HR : 0.66, 95% CI: 0.57–0.77) as did having a greater number of children (HR : 0.90, 95% CI: 0.86–0.94). However, number of household members increased the hazard (HR : 1.04, 95% CI: 1.02–1.06).

Overall, the association between husbands' migration and first onset MDD remained consistent across sequential models, with similar patterns observed for both international and internal migration. As a sensitivity analysis, we combined internal and international migration into a single measure of cumulative migration exposure and refitted the fully adjusted Cox proportional hazards model (Supplementary Table S1). The pattern of associations remained substantively similar, suggesting that the observed associations were robust when migration was conceptualized as cumulative spousal separation rather than destination-specific migration.

Discussion

In this study, we examined the association between husbands' migration and the first onset of MDD among married women in rural Nepal while adjusting for individual, household and community characteristics. We found that women whose husbands accumulated 1–24 months of migration during the preceding five years had a higher hazard of first onset

MDD than women whose husbands did not migrate. In contrast, associations were weaker among women whose husbands accumulated 25–60 months of migration during the same period. Importantly, these patterns were similar for both international and internal migration, suggesting that cumulative spousal separation may be more strongly associated with first onset MDD than migration destination itself. We also found that belonging to an ethnic minority or low-caste group and living in larger households were associated with higher hazards of first onset MDD, whereas higher educational attainment, having more children and participation in community groups were associated with lower hazard of MDD.

The finding that women whose husbands accumulated 1–24 months of migration had a higher hazard of first onset MDD, whereas associations were weaker for those whose husbands accumulated 25–60 months of migration, suggests that the relationship between cumulative spousal separation and depression may not be linear. Although our study cannot determine the mechanisms underlying this pattern, several explanations are plausible. Households with lower cumulative migration exposure may still be adapting to spousal separation, changing household responsibilities and uncertainty surrounding migration. Previous studies have shown that wives of migrants commonly experience loneliness, increased caregiving responsibilities, reduced marital support and greater psychosocial stress associated with husbands' absence ([Arokkiaraj et al., 2021](#); [Zheng and Yan, 2025](#); [Nguyen et al., 2025](#)). In Nepal, these stressors may be compounded by limited autonomy, migration-related debt and concerns about husbands working under hazardous conditions ([Adhikary et al., 2019](#); [Sigdel et al., 2025](#)). Together, these factors may contribute to psychological distress and increase vulnerability to the first onset of MDD.

Several factors may also explain why associations were weaker among women whose husbands accumulated longer durations of migration. One possibility is that households gradually adapt to prolonged or repeated migration. Women may establish new household routines, develop coping strategies and strengthen social support networks that reduce the psychological impact of spousal separation. This interpretation is consistent with the protective association observed for community group membership in our study and with our previous qualitative research from the same setting, in which women described adapting to changing household responsibilities and viewing migration as an investment in their family's future ([Rai et al., 2023](#)). As labor migration has become increasingly common in Nepal ([Adhikari et al., 2023](#)), prolonged migration may also become a more socially normative experience, reducing some of its psychological impact.

Economic factors may provide an additional explanation. Although remittances were not measured directly in this study, migration often requires substantial upfront financial investment before households begin receiving economic returns ([Shrestha, 2017](#)). Consequently, households with lower cumulative migration exposure may still be experiencing financial strain associated with migration, whereas households with longer cumulative migration may have benefited from sustained remittances that improve household living conditions and reduce economic insecurity ([Maharjan et al., 2012](#); [Tachibana et al., 2019](#); [Tong et al., 2019](#)). Future longitudinal studies incorporating repeated measures of remittances and household economic conditions are needed to evaluate these potential pathways.

Contrary to our initial hypothesis, we found little evidence that migration destination substantially altered the association between husbands' migration and first-onset MDD. The magnitude and direction of associations were remarkably similar for both international and internal migration across all three models, and our sensitivity analysis combining the two migration types produced comparable results. These findings suggest that the cumulative experience of spousal separation may be more important than whether husbands migrate within Nepal or internationally. Although international migration is often characterized by greater geographic distance, less frequent face-to-face contact, hazardous working conditions and higher migration costs ([Wasti et al., 2024](#); [Adhikari et al., 2023](#); [Sigdel et al.,](#)

2025), our findings suggest that these destination-specific characteristics may not substantially alter the overall association with first onset MDD.

The associations observed for ethnicity, household characteristics, education and community group membership were consistent with previous research from Nepal (Kohrt *et al.*, 2009; Axinn *et al.*, 2013; Lam *et al.*, 2017). Women from historically marginalized caste and ethnic groups, particularly Dalits, experienced a higher hazard of first onset MDD, underscoring the importance of structural and social disadvantage in shaping mental health. Similarly, larger household size was associated with increased risk, potentially reflecting greater household responsibilities and reduced autonomy among wives of migrants (Rajkarnikar, 2020; Hena and Jahan, 2021). In contrast, higher educational attainment, having more children and participation in community groups were associated with lower hazards of MDD. Education may enhance women's access to information, coping skills and decision-making capacity. Children may help women cope with their husband's absence (Rai *et al.*, 2023) while community groups provide opportunities for social support that buffer migration-related stress (Chukwu *et al.*, 2025). Together, these findings highlight the importance of social and structural resources in promoting resilience among wives of migrants.

Limitations

Although this study used systematic and rigorous methods to collect data from a representative sample of general Nepali population, there are number of limitations to be considered. First, although life history calendars were used to improve recall, migration histories and episodes of MDD were collected retrospectively and may therefore be subject to recall bias or underreporting. In addition, individuals with severe MDD or substantial functional impairment may have been less likely to participate in the mental health assessment, potentially resulting in an underestimation of MDD prevalence. Second, this study focused on the first onset of MDD and was not designed to examine recurrent depressive episodes or relapse following subsequent migration experiences. Future longitudinal studies should investigate whether husbands' migration also increases the risk of recurrent MDD among women with a prior history of depression. Third, our measure of migration captured the cumulative number of months husbands were away during the previous five years and therefore could not distinguish between continuous and cyclical migration patterns or identify the precise timing of migration episodes within that period. Finally, although financial strain and remittances are likely important mechanisms linking husbands' migration and women's mental health, we did not have longitudinal data on remittances or household economic changes across the study period and were therefore unable to disentangle the psychological effects of spousal separation from changes in household economic circumstances.

Conclusion

This study found that husbands' migration was significantly associated with the first onset of MDD among married women in Nepal. Women whose husbands accumulated 1–24 months of migration during the preceding five years experienced a higher hazard of first onset MDD than women whose husbands did not migrate, while the association was weaker among women whose husbands accumulated longer durations of migration. Similar associations for both internal and international migration suggest that cumulative spousal separation, rather than migration destination, may be a more important factor associated with first onset MDD among wives of migrants.

These findings have important public health implications. Wives of migrants represent an important population for depression prevention, early identification and psychosocial support within communities experiencing high levels of labor migration. Integrating

preventive mental health services into existing community and primary healthcare programs may help identify women at increased risk, mitigate psychological distress and prevent the onset of MDD. As labor migration continues to expand globally, future longitudinal studies should examine the mechanisms linking migration and mental health including remittances, communication patterns, social support, and migration trajectories to inform contextually appropriate interventions for families affected by migration.

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Supplementary material

The supplementary material for this article can be found online.

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