Depression and severe pain:

Primary data and meta-analysis among 237,952 people across 47 low- and middle-income countries

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**Abstract (248/250)**

*Background*

Depression and pain are leading causes of global disability. Despite this, there is a paucity of multinational population data assessing the association between depression and pain, particularly among low- and middle-income countries (LMICs). Therefore, we investigated this association across 47 LMICs.

*Methods*

Community-based data on 273,952 individuals from 47 LMICs recruited via the World Health Survey were analyzed. Multivariable logistic and linear regression analysis were performed to assess the association between past-12 month ICD-10 depression/depression subtypes and pain in the previous 30 days. Country wide meta-analysis adjusting for age and ex was also conducted.

*Results*

The prevalence of severe pain was 8.0%, 28.2%, 20.2%, and 34.0% for no depression, subsyndromal depression, brief depressive episode and depressive episode respectively. Logistic regression adjusted for socio-demographic variables, anxiety and chronic conditions demonstrated that compare to no depression, those with subsyndromal depression, brief depressive episode, and depressive episode were associated with a 2.16 (95%CI=1.83-2.55), 1.45 (95%CI=1.22-1.73), and 2.11 (95%CI=1.87-2.39) increase in odds of severe pain respectively. Similar results were obtained when a continuous pain scale was used as the outcome. Depression was significantly associated with severe pain in 44/47 countries with a pooled OR of 3.93 (95%CI=3.54-4.37).
Conclusion

Depression and severe pain are highly comorbid across LMICs, independent of anxiety and chronic conditions. Individuals with pain or depression should be systematically considered at risk for depression-pain comorbidity. Whether depression treatment or pain management in patients with comorbid pain and depression leads to better clinical outcome is an area for future research.

**Key words:** Depression, pain, depressive symptoms, comorbidity,