

BIDIRECTIONAL ASSOCIATIONS BETWEEN PANCREATITIS AND PSYCHOLOGICAL DISORDERS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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INTRODUCTION

Depression and anxiety are common yet underrecognized comorbidities in patients with pancreatitis. While evidence suggests a significant psychological burden in these patients, the underlying mechanisms remain unclear, and psychological management is not routinely implemented in clinical care. This study aims to assess the prevalence of these conditions and highlight the need for their integration into pancreatitis treatment.

AIMS & METHODS

Our protocol was registered on PROSPERO (CRD42023481739). We conducted a comprehensive search on November 10, 2023, across three databases—MEDLINE, Embase, and CENTRAL—to identify studies reporting on the prevalence of depression and anxiety symptoms in patients with pancreatitis. We used a random-effects model to calculate the pooled proportion rate and mean differences (MD) with 95% confidence intervals (CI), as well as a pooled single-mean analysis of the psychological questionnaire data.

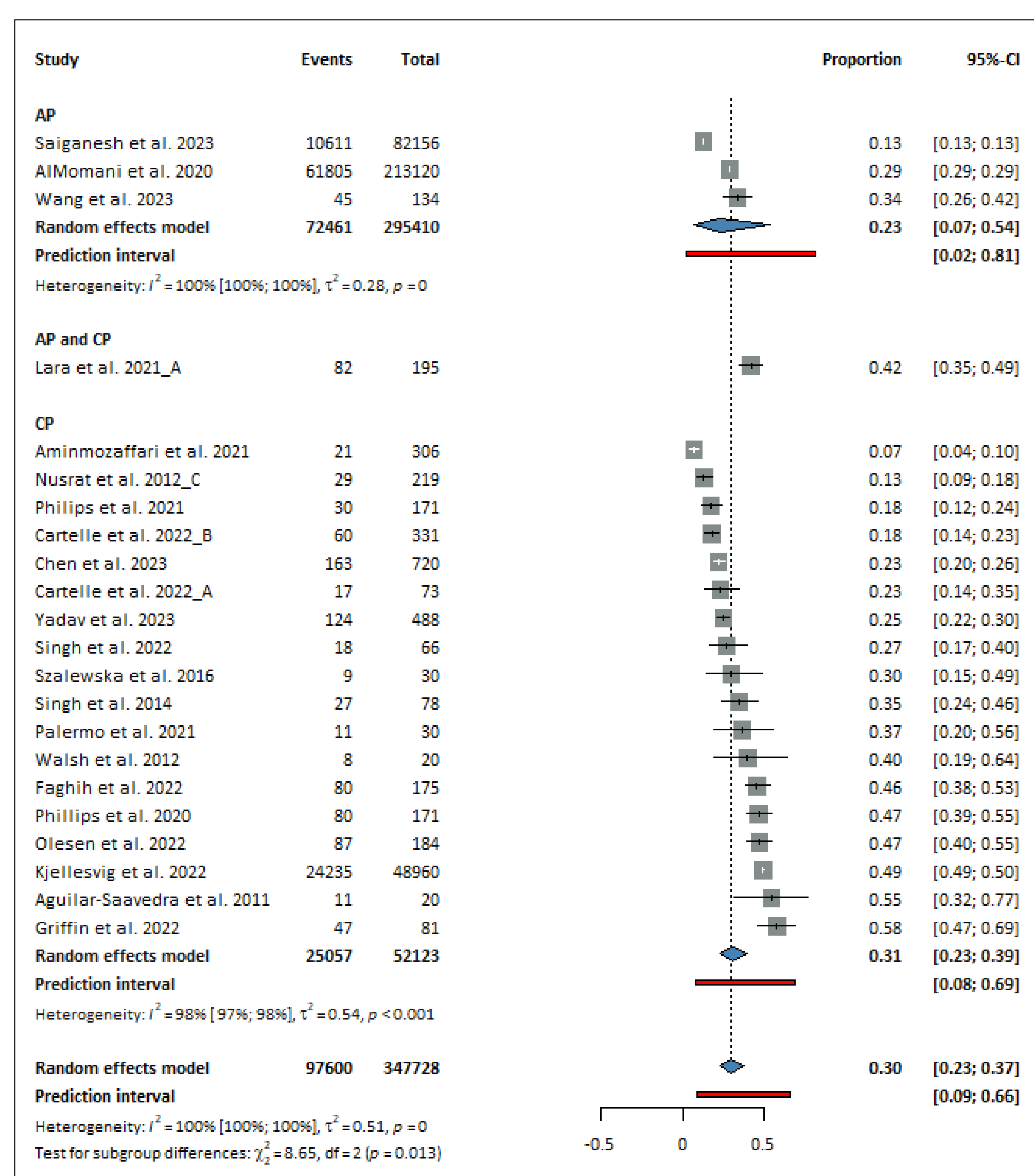


Figure 1. Forest plot demonstrating the proportion rates of **anxiety** in pancreatitis patients. AP: acute pancreatitis, CP: chronic pancreatitis, CI: confidence interval.

RESULTS

In total, 43 studies were included in our meta-analysis. Among patients with acute pancreatitis (AP), anxiety was reported in approximately 23% of cases (CI: 7–54), whereas in chronic pancreatitis (CP), the prevalence was higher at 31% (CI: 23–39). Depressive symptoms were identified in approximately 29% of AP patients (CI: 14–51) and 39% of CP patients (CI: 30–48). The pooled single-mean analysis of questionnaire data further underscored the severity of these psychological symptoms, with scores exceeding established clinical cut-off points. For depressive symptoms, mean scores were as follows: CESD-10 (14.30 [CI: 6.69–21.92]), HADS (8.23 [CI: 4.53–11.94]), and SES (49.29 [CI: 44.01–54.57]). Similarly, anxiety symptom severity was reflected in the following measures: HADS (8.67 [CI: 4.53–11.94]) and SAS (47.75 [CI: 35.05–60.45])

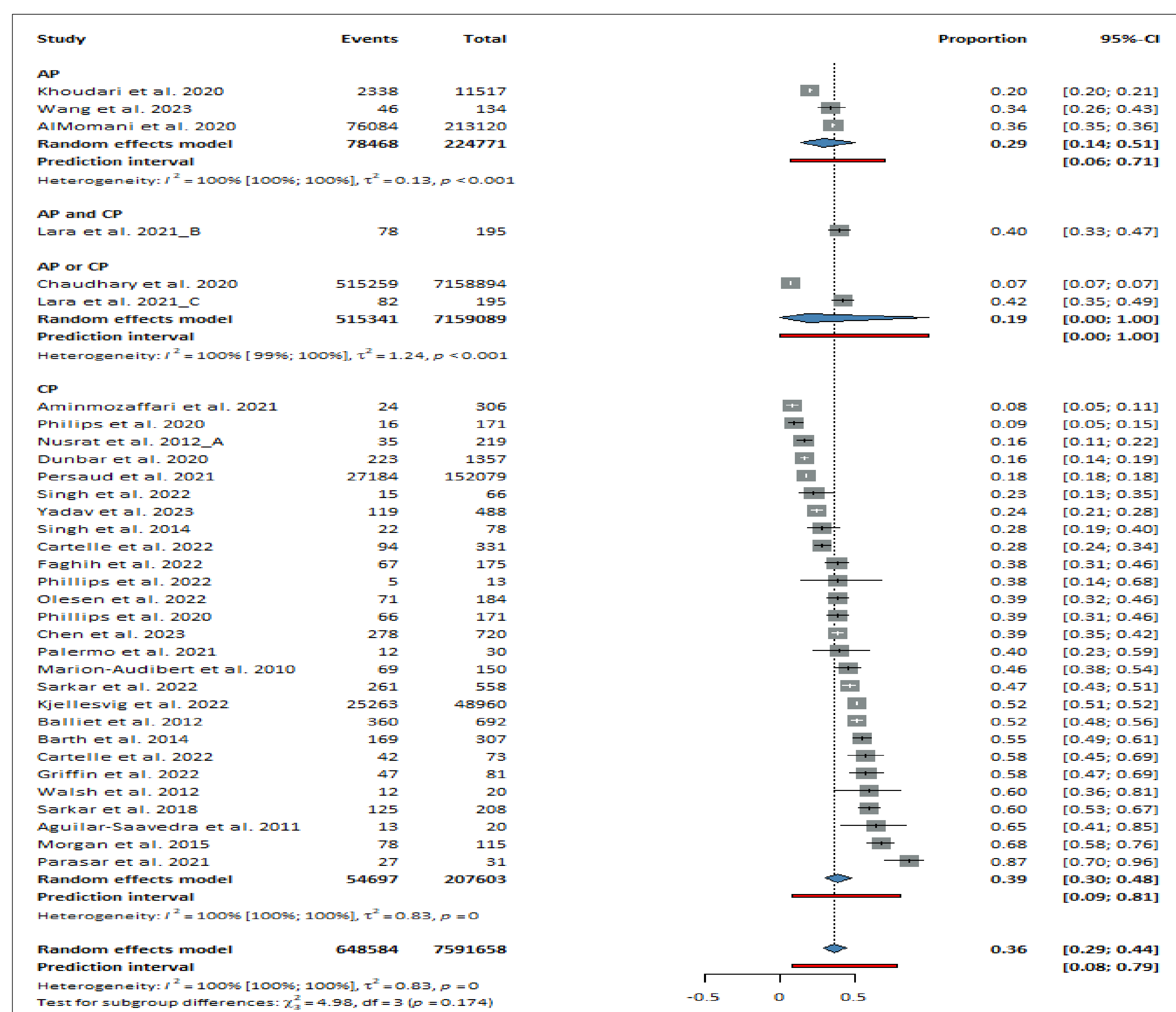


Figure 2. Forest plot demonstrating the proportion rates of depression in pancreatitis patients. AP: acute pancreatitis, CP: chronic pancreatitis, CI: confidence interval.

CONCLUSION

There is a significant prevalence of both anxiety and depression in patients with pancreatitis. There is a need to integrate psychological interventions into the treatment of pancreatitis to potentially improve clinical outcomes.