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Poster

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Abstract

Introduction: The perinatal period can be a challenging time for women, often associated with mental health issues such as anxiety. However, there is limited evidence on the effectiveness of online interventions aimed at preventing anxiety disorders during this period. This study aims to conduct a meta-analytic synthesis of randomized controlled trials (RCTs) to assess the effectiveness of online psychological and/or psychoeducational interventions in preventing maternal perinatal anxiety.

Methods: A meta-analysis of RCTs was performed by searching the most relevant databases in this field. The risk of bias in the included studies was assessed using the Cochrane Risk of Bias Tool version 2. Data extraction focused on key variables, including: the target population (sample characteristics, pregnant or postpartum women, parity), the type of prevention (universal, selective, or indicated), the intervention (timing, orientation, guidance), and the outcomes (instruments, constructs assessed, primary or secondary outcomes, time points of assessment, and effectiveness). Statistical analysis was conducted using the Comprehensive Meta-Analysis software. The standardized mean difference (SMD) was calculated using Hedges' g to obtain the pooled effect size, applying a random effects model for the calculation of the pooled SMD. Heterogeneity was assessed using the Q statistic and its p-value, along with the I^2 index and its 95% confidence interval (95% CI). Publication bias was evaluated using Begg's and Mazumdar's rank correlation test and Duval and Tweedie' s trim-and-fill procedure. Sensitivity analyses examined variations in the pooled SMD using a fixed effect model, Cohen's d as the effect size, exclusion of the most heterogeneous study, and risk of bias. Subgroup analyses were conducted using a mixed-effects model based on the aforementioned categorical variables. The Knapp and Hartung procedure was applied to calculate beta coefficients, standard errors, p-values, and the 95% CIs for the meta-regression model.

Results: Thirteen RCTs were included in the meta-analysis. The pooled SMD was small (g= -0.231, 95% CI: -0.444 to -0.017) but statistically significant (p = 0.034). The effect became non-significant when studies at high risk of bias were excluded. Ten RCTs were rated as high risk of bias. The Q index, its p-value and the I^2 revealed significant (Q_{15} = 72.643; p = 0.069) and substantial (I^2 = 79.351%; 95% CI) heterogeneity between the studies. Sensitivity analyses showed no change in the pooled effect size. No publication bias was detected based on the Begg's and Mazumdar's rank correlation test and the Duval and Tweedie's trim-and-fill procedure. Significant differences in effectiveness trends were observed according to prevention type and guided

intervention type ($p < 0.05$). The final meta-regression model explained 31% of the variance. However, no significant associations were found between intervention effectiveness and the covariates included in the final model, such as continent, year of publication, intervention guidance and orientation, and type of prevention. Conclusions: These preliminary findings suggest that online psychological and/or psychoeducational interventions may be effective in preventing maternal perinatal anxiety, although further research is needed to confirm these results.

Keywords

Perinatal, online, metanalysis, anxiety, prevention

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