Background

Substance use disorders (SUD) have a tremendous and rising cost for society and the healthcare system. So it is important to find ways to improve treatment outcomes.

Results

Across the 10 studies, there were 1227 participants. No cognitive measures were consistently significant. Four studies showed no cognitive measures were statistically significant. The most used tests were the Wisconsin Card Sorting Test, Stroop Color Word Test, and Iowa Gambling Task. However, the Wisconsin Card Sorting Test, MicroCog, and Self-Regulation - Revised Strategy Application Test were each found to be significant predictors of treatment retention or dropout in a few studies. There was insufficient data to complete a meta-analysis. The risk of bias was low to moderate.

Methods

We selected studies with SUD with validated cognitive predictive measures and an outcome measure of treatment retention or dropout. Studies must have at least data to 3 months because that suggest that most patient will continue to adhere past that point. We selected studies from the following databases: MEDLINE, Web of Science, PsycINFO, and EMBASE. We used Covidence to narrow down the studies we found. There were 2 rounds of exclusion and 1 round of data extraction.

Discussion

Now, that addiction medicine has focused more on treatment retention, more studies on cognitive measures must be done to see if cognitive remediation can help improve treatment retention and outcomes. Further, studies should broaden their predictive measures to all three cognitive domains because most studies focus on executive function.