

PRESENTATION 3

Prevalence of Amnesia in Individuals Committing Crime: A Systematic Review & Meta-Analysis

George Hawker
University of Warwick

Background

Claims of amnesia have been used as a legal defence by those committing criminal offences. However, the most recent review of the prevalence of these claims was conducted over 30 years ago. Given the legal implications of a diminished criminal responsibility it is imperative to fully appreciate the circumstances surrounding such claims. The primary aim of this systematic review was to provide updated pooled prevalence estimate of amnesia in those convicted of committing crimes. Furthermore, to determine any possible sources of heterogeneity, we aimed to perform subgroup analysis of relevant contributing factors e.g. crime committed, age.

Methods

A systematic search of the literature was conducted through the following databases: PsycINFO (1806 - Oct 2019), Embase (1947 - 2019), Ovid MEDLINE(R) (1946 - Oct 2019), Web of Science (all years), Scopus (all years). This review was carried out in concordance with the PROSPERO protocol CRD42019154401. Meta-analysis and subgroup analysis of eligible studies were then performed. Pooled prevalence estimates were calculated using the metaprop command in STATA 16.0. Forest plots were constructed to present prevalence estimates with 95 % confidence intervals (CI) and assigned study weights. Eligible full-texts were quality assessed using the Joanna Briggs Institute (JBI) Appraisal Checklist for Studies Reporting Prevalence Data.

Results

17 eligible studies were included in quantitative synthesis, reflecting a total sample of 3206 persons. The overall pooled prevalence of amnesia was 32.02 % (95 % CI: 26.15 - 38.17 %, I² = 91.12 %, $p < 0.001$). Subgroup analysis of prevalence by crime committed showed no significant differences (heterogeneity between groups $p = 0.78$). Similarly, claims of amnesia before or after trial showed no significant difference (heterogeneity between groups $p = 0.74$). This indicates that rates of claiming amnesia do not directly correlate with more severe crimes or the influence of a trial, respectively.

Key messages

This study presents the first meta-analysis for prevalence of amnesia in criminal offences. However, the foremost limitation is the lack of objective diagnostic testing of amnesia claims which may have contributed to significant heterogeneity. Future work should focus on determining mechanisms of amnesia and improving diagnostic screening.

