

INPLASY PROTOCOL

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Disordered gambling among people with psychotic disorders: A systematic review

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Review question / Objective: We were interested in studying the prevalence and correlates of disordered gambling among people with psychotic disorders. **Participants:** Adults (18-65 years) with psychotic disorders (schizophrenia, schizoaffective disorder, Psychosis NOS, first episode psychosis or first episode schizophrenia, early psychosis or early schizophrenia, schizophreniform psychosis, schizophrenia, schizoaffective disorders, psychosis NOS). **Indication:** Disordered gambling or pathological gambling or gambling disorder. **Comparator:** Adults with psychotic disorders who do not have disordered gambling or healthy controls. **Outcome:** Prevalence and correlates.

To investigate these issues further, we systematically reviewed published studies that report an association between psychosis and disordered gambling. We aimed to summarize the rates and correlates of disordered gambling among people with psychotic illnesses.

We hypothesized that the rates would be higher than seen in the general population. In keeping with reports on gambling in general, we also hypothesized that gambling disorder in psychosis would be associated with being male, younger age, lower education, and lower socio-economic status.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 27 March 2023 and was last updated on 27 March 2023 (registration number INPLASY202330108).

INTRODUCTION

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people with psychotic disorders. **Participants:** Adults (18-65 years) with psychotic disorders (schizophrenia, schizoaffective disorder, Psychosis NOS, first episode psychosis or first episode

schizophrenia, early psychosis or early schizophrenia, schizophreniform psychosis (schizophrenia, schizoaffective disorders, psychosis NOS). Indication: Disordered gambling or pathological gambling or gambling disorder. Comparator: Adults with psychotic disorders who do not have disordered gambling or healthy controls. Outcome: Prevalence and correlates.

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Rationale: Extant research suggests that gambling disorders, irrespective of severity, are associated with adverse mental, physical, and psychosocial difficulties such as relationship breakdown and financial or legal problems. People with psychotic disorders are an already disadvantaged group in terms of low rates of employment, high rates of poverty and reliance on government disability payments; gambling can have a particularly damaging impact in this context.

Condition being studied: Disordered gambling: A number of terms have been used to describe gambling that becomes problematic. These include disordered gambling, excessive gambling, compulsive gambling, problem gambling, and pathological gambling. All are used to describe gambling-related behaviours that often lead to significant harm to self, important others, and the community.

METHODS

Search strategy: Search strategies were developed by a medical librarian (HW) in

consultation with AS and DC. Potential search terms were identified through text mining in PubMed PubReminer using the query “pathological gambling AND (psychosis OR psychotic OR schizophrenia)”. Search terms retrieved through text mining were extensively tested for usefulness and relevance in Ovid Medline to develop the final search strategy.

Final search strategies combined the general concepts of Pathological gambling AND (Psychosis OR Schizophrenia) using a combination of subject headings and text words. In accordance with inclusion and exclusion criteria, searches were limited to English language publications, but no date limits were applied. An initial search was developed for Ovid Medline and then adapted for other databases adjusting subject headings and syntax as appropriate. Search syntax used in the Ovid databases was adapted for CINAHL (EBSCOhost) and Cochrane (Wiley) using the Polyglot Search Translator.

Participant or population: Adults with psychotic disorders including schizophrenia, schizoaffective disorder, Psychosis NOS, first episode psychosis or first episode schizophrenia, early psychosis or early schizophrenia, schizophreniform psychosis (schizophrenia, schizoaffective disorder, psychosis NOS).

Intervention: We were interested in the indication disordered gambling.

Comparator: Adult patients with psychosis who do not have gambling or those with healthy controls were these groups have been studied.

Study designs to be included: Cross-sectional, case-control, and cohort studies.

Eligibility criteria: Inclusion criteria: Patient population: 1. Adult patients (over 18 years and under 65 years) 2. Diagnosis of schizophrenia, schizoaffective disorder, Psychosis NOS, first episode psychosis or first episode schizophrenia, early psychosis or early schizophrenia, schizophreniform psychosis Study type: 1.

cross-sectional, case-control, or cohort2. clinical trials provided they report on "gambling"3. secondary analysis of databases or clinical trialsInterest: reports frequency Incidence or prevalence) of pathological gamblingreports or describes correlates for pathological gambling in the population aboveComparator: none or no pathological gambling Outcome: frequency or correlates. Exclusion criteria were overviews, reviews, perspective papers, editorials, case-reports, case-series, studies on other diagnostic groups, studies done in other age groups.

Information sources: Medline ALL, Embase, Emcare, APA PsycINFO, CINAHL and the Cochrane Library.

Main outcome(s): Prevalence of disordered gambling and correlates (socio-demographic and clinical features) associated with gambling among those with psychotic disorders.

Additional outcome(s): None.

Data management: We developed a proforma that contained all the relevant qualitative, descriptive, and quantitative data to be extracted from the individual studies.

Quality assessment / Risk of bias analysis: Quality of included studies were assessed using the Joanna Briggs Institute Critical Appraisal Tools (Joanna Briggs Institute, 2014) for the appropriate study designs. We classified the quality as good (> 6 on an 8-item scale or > 8 on a 10-item scale), fair (4-5 on an 8-item scale or 5-7 on a 10-item scale), and poor (< 3 on an 8-item scale or < 4 on a 10-item scale).

Strategy of data synthesis: We did not undertake a meta-analysis and therefore only collected the information pertaining to prevalence and correlates for disordered gambling among those with psychotic disorders.

Where possible, we have compared that to the data among those without gambling or in healthy population, and where this information is not available, we have

compared it to available statistics from that country.

We also undertook qualitative analysis (as above) and then described the data based on best evidence available.

Subgroup analysis: Not relevant as this is a systematic review.

Sensitivity analysis: Not relevant as this is a systematic review. We also undertook qualitative analysis (as above) and then described the data based on best evidence available.

Language restriction: We only identified studies publishes in English.

Country(ies) involved: Australia.

Keywords: Schizophrenia spectrum disorder, pathological gambling, disordered gambling, psychotic disorder, prevalence.

Dissemination plans: We plan to submit out systematic review for publication.

Contributions of each author:

Author 1 - Anoop Sankaranarayanan - Devised the study plan, developed the data extraction tool, oversight of the study selection, contributed to data extraction processes, drafted the manuscript and subsequent versions.

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Author 3 - Rinu Mathew - Culling and Study selection; Data Extraction.

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Author 4 - Helen Wilding - Developed search strategies for the different databases; Undertook the searches; Contributed to manuscript.

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Author 5 - David Castle - Conceived the idea; Oversight; Contributed to the manuscript.

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Conflicts of interest: Only one author (Prof David Castle) had the following conflicts of

interest to declare: Potential conflicts of interest (past 36 months: February 2023): DC has received grant monies for research from Servier, Boehringer Ingelheim; Travel Support and Honoraria for Talks and Consultancy from Servier, Seqirus, Lundbeck, Mindcafe, Psychscene, Inside Practice. He is a founder of the Optimal Health Program (OHP) and holds 50% of the IP for OHP; and is part owner (5%) of Clarity Healthcare. He is an unpaid Chair of an Advisory Board of Psychae, an Australian not-for-profit institute specialising in psychedelic medicines research. He does not knowingly have stocks or shares in any pharmaceutical company.