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Hikikomori: a scoping review of prevalence, risk factors and preventive interventions

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ADMINISTRATIVE INFORMATION

Support - NA.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 2 February 2026 and was last updated on 2 February 2026.

INTRODUCTION

Review question / Objective (1) the global prevalence of hikikomori, (2) the risk factors associated with hikikomori, and (3) existing prevention and intervention programs targeting hikikomori.

Background Hikikomori among adolescents and young adults since the late has been used to describe severe and prolonged social withdrawal among adolescents and young adults since 20th century in Japan (Kato et al., 2018). Initially regarded as a culturally specific phenomenon, hikikomori has increasingly been reported across diverse sociocultural and economic contexts, indicating its emergence as a global public health concern and an increasingly prevalent international condition (Wu et al., 2019). Accumulating evidence suggests that hikikomori is associated with broader societal changes, including a shift from direct to increasingly indirect and physically isolating modes of communication, as well as substantial functional impairment and psychiatric comorbidity, such as avoidant personality traits, social anxiety disorder, major depressive disorder, autism spectrum disorder, and latent or prodromal states of schizophrenia (Kato and Kanba, 2016).

Rationale As attention to hikikomori grows across cultures and countries, hikikomori was included in the "Culture and Psychiatric Diagnosis" section of the DSM-5-TR (American Psychiatric Association,2022). A substantial body of research on hikikomori has been conducted worldwide, suggesting that advances in digital and communication technologies that provide alternatives to in-person interaction may contribute to its increasing relevance. Accordingly, hikikomori represents a growing public health concern requiring attention from governmental agencies, social services, public health practitioners, psychologists, and social workers. Furthermore, several studies have reported the coexistence of hikikomori with a range of psychiatric disorders, including schizophrenia, mood disorders, and anxiety disorders, some of which may require

pharmacological treatment (Kondo et al., 2011; Koyama et al., 2010).

METHODS

Strategy of data synthesis The search strategy was made based on the review question and structured into three sections addressing the prevalence, risk factors, and preventive interventions for hikikomori. The final search strategy was applied in major databases (PubMed, Web of Science, PsycINFO, and Embase).

Eligibility criteria Eligibility criteria were established according to the Population, Intervention, Comparison, and Outcome (PICO) framework.
Studies were included if they met all the following criteria:
1) the definition of hikikomori was consistent with the one recommended by Kato and colleagues (Kato et al., 2019);
2) studies reported on the prevalence, assessment methods, risk factors, or intervention and prevention programs related to hikikomori;
3) empirical quantitative or qualitative studies;
4) studies published in English in peer-reviewed journals with available data.

Articles were excluded if they met one or more of the following criteria:
1) literature reviews without empirical data;
2) conference abstracts, theses, or book chapters;
3) studies lacking sufficient information for data extraction (e.g., missing details about interventions);
4) studies in which hikikomori could not be clearly distinguished from general social withdrawal.

Section-specific exclusion criteria for each section were applied as follows:
1) Section 1 (Prevalence): studies that did not provide sufficient details on hikikomori prevalence or assessment methods.
2) Section 2 (Risk Factors): studies that did not examine risk factors associated with hikikomori.
3) Section 3 (Intervention/Prevention): studies that did not focus on hikikomori-related prevention or intervention programs.

Source of evidence screening and selection Data screening and study selection were conducted independently by two researchers (CZM, WYY, XHQ) for each section across all databases. For all three sections, the two researchers applied a two-step screening process to the retrieved records: (1) title and abstract screening, in which studies were categorized as "Yes," "No," or "Maybe"; and (2) full-text screening, in which articles were assessed in detail and labeled as "Include" or "Exclude," with excluded studies assigned one of four exclusion reasons when applicable. Any disagreements were resolved through discussion with a third researcher until consensus was reached.

Data management For the first section on the prevalence of hikikomori, data were extracted on study setting year, study design, study location, sample size, and age- and gender-specific prevalence. For the second section on risk factors for hikikomori, detailed information on all identified risk factors was extracted across different levels. For the third section on prevention and intervention programs for hikikomori, variables of interest were extracted on study location, intervention design, participant characteristics, and main outcomes, including mental health–related outcomes. The items in the final data-collection and findings from each section were summarized and incorporated using tables and charts. Each peer-reviewed article was recorded and cross-checked by two independent researchers in total for all sections. Any disagreements regarding data extraction were resolved by rechecking the article in conjunction with the third researcher.

Language restriction English.

Country(ies) involved China Macau.

Keywords hikikomori, prevalence, intervention, risk factor.

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