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Beyond individual cognition: A scoping review protocol examining social group processes in misinformation interventions for children and adolescents

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ADMINISTRATIVE INFORMATION

Support - Not Applicable.

Review Stage at time of this submission - Piloting of the study selection process.

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 16 March 2026 and was last updated on 10 April 2026.

INTRODUCTION

Review question / Objective The objective of this scoping review is to examine the extent to which existing interventions targeting misinformation susceptibility among school-aged children and adolescents incorporate social group processes, specifically peer influence, norm conformity, and social identity processes, in their intervention components.

Background Children and adolescents are increasingly exposed to misinformation. According to UNICEF's report, 76% of young people aged 14 to 24 reported encountering online misinformation at least once a week in Germany (Howard et al., 2021). In the UK, the National Literacy Trust (2018) found that among 388 primary school pupils aged 8 to 11 and 1832 secondary school students aged 11 to 16, only 1.9% were able to successfully identify all real and fake news stories presented in a literacy assessment. Similarly, evidence from the US indicates that while adult participants

succeeded in detecting fake news, children performed only at chance when differentiating fake news from real news (Xu et al., 2022). In addition, misinformation and fake news Evidence from Vietnam indicates that 68.8% of adolescents and young adults encounter fake news on social networks at least occasionally (Nguyen et al., 2015).

The exposure to misinformation and fake news has detrimental effects for children's and adolescent's mental wellbeing. Exposure to false information has been found to be associated with psychological distress, emotional confusion, and political disillusionment in children and adolescent (Dhiman, 2023; Malik, 2025). Ma et al. (2025) further argue that misinformation has disproportionately negative impacts on children and adolescents compared to adults. This vulnerability stems not only from adolescents' ongoing development of analytical reasoning skills, but also from their heightened sensitivity to social

information (Molleman et al., 2022; Weil et al., 2013).

Rationale Research has found evidence for social group processes as a unique risk factor for young people's propensity towards misinformation. For instance, Confer et al. (2025) demonstrated across three experimental studies with 4- to 6-year-old children that group membership directly biases how children evaluate evidence. In addition, Farooq et al. (2022) found that children aged 8 to 11 and adolescents aged 11 to 16 displayed significant ingroup biases when evaluating peers who spread misinformation, rating ingroup misinformers more positively than outgroup misinformers even when the behaviour was identical. Notably, an ingroup norm encouraging critical thinking failed to override these group-based biases. Moreover, Zozaya-Durazo et al. (2024) found that young people aged 11 to 17 report difficulty refraining from sharing misinformation if they perceive that dissemination offers the opportunity to strengthen belongingness through participating in viral topics. Taken together, these findings suggest that social group processes (e.g. ingroup bias, peer conformity, and the desire for social belonging) are central mechanisms through which young people engage with and respond to misinformation. These findings therefore raise a critical question about whether existing interventions designed to reduce misinformation susceptibility among young people adequately address these sociopsychological mechanisms.

So far, to our knowledge, no review has systematically mapped existing interventions through a social-psychological lens. Therefore, the objective of this research is to conduct a scoping review examining the extent to which existing interventions targeting misinformation susceptibility among school-aged children and adolescents incorporate peer influence, group norms, and social identity processes. If interventions are primarily designed around individual cognitive skills without addressing the social group dynamics that emerging evidence suggests underpin misinformation susceptibility, this would represent a notable gap between the evidence base and current practice. A scoping review is appropriate because the aim is to estimate the landscape and identify gaps, rather than to measure intervention effectiveness.

METHODS

Strategy of data synthesis The proposed scoping review will be conducted in accordance

with the JBI methodology for scoping reviews (Peters et al., 2020). The review will be reported using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018). The search strategy aims to locate published studies relevant to the review question. Guided by the Population, Concept, and Context (PCC) framework, the search strategy defines the population as school-aged children and adolescents, the concept as interventions designed to reduce susceptibility to misinformation, and the context as school settings. Where database functionality permits, searches will be applied to title and abstract fields. However, where this is not possible, subject heading fields will be used as an alternative.

The search will combine the following blocks using Boolean operators:

Block 1 (Population): child* OR adolescen* OR teen* OR youth* OR pupil* OR student*

Block 2a (Concept; Misinformation): misinform* OR disinform* OR "fake news" OR "false information" OR "false news" OR "science skepticism" OR "science scepticism" OR "science rejection" OR conspirac*

Block 2b (Concept; Interventions): intervention* OR program* OR training OR curriculum OR "media literacy" OR "digital literacy" OR "news literacy" OR inoculat* OR prebunk* OR debunk* OR "critical thinking" OR workshop

Block 3 (Context: School): "primary school" OR "secondary school" OR "high school" OR "middle school" OR "elementary school" OR community OR online

Combined: Block 1 AND Block 2a AND Block 2b AND Block 3

Articles will be taken from databases including PsycINFO, APA PsycArticles Full Text Database, Web of Science, Scopus, and ERIC. Data will be synthesised using a narrative approach. A descriptive summary of intervention characteristics will be presented, including the number and types of interventions, target age groups, theoretical frameworks, delivery methods, and stated aims. This will be followed by a critical analytical synthesis examining the presence or absence of social group processes across included interventions. Findings will be reported using the extraction framework coding for peer influence, group norms, and social identity processes across both form and function dimensions of the interventions. Where data permit, findings may be discussed separately for interventions targeting primary school-aged children versus secondary school-aged adolescents. Results will be

presented in alignment with the PRISMA Extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018).

Eligibility criteria The updated inclusion and exclusion criteria are:

Inclusion criteria are: (a) the study evaluates an intervention either qualitatively or quantitatively (qualitative evaluation includes focus groups, interviews, or observation; quantitative evaluation includes pre-post measures, surveys, or controlled comparisons); (b) the intervention explicitly targets susceptibility towards misinformation and science scepticism in the news and digital media; (c) participants are school-aged children or adolescents (aged 6 to 18 years); (d) published in English; (e) published in peer-reviewed journals; (f) published between January 2016 to March 2026.

Exclusion criteria are: (a) the study provides no qualitative or quantitative evaluations of the intervention; (b) the intervention does not explicitly target susceptibility towards misinformation and science scepticism in the news and digital media; (c) focuses exclusively on adult populations, with no disaggregated data for participants under 18 ; (d) the study only examines the prevalence or risk factors for belief in misinformation without intervention implementation; (e) theoretical or commentary papers with no empirical data or description of intervention mechanism or evaluations; (f) book reviews, editorials, or abstracts only; (g) full text unavailable.

Source of evidence screening and selection

Following the search, all identified citations will be collated and uploaded into Covidence for de-duplication and screening. Titles and abstracts will be screened against the inclusion criteria. Potentially relevant sources will be retrieved in full and their citation details imported into Covidence. The full text of selected citations will be assessed in detail against the inclusion criteria by two independent reviewers. Reasons for exclusion of sources at full text will be recorded and reported. Any disagreements that arise between reviewers at each stage of the selection process will be resolved through discussion or with a third reviewer. The results of the search and the study inclusion process will be reported in full in the final scoping review and presented in a PRISMA flow diagram (Page et al., 2021).

Data management Extracted papers will be managed on Covidence, which will serve as the primary platform for reference management, de-duplication, screening, and data extraction throughout the review process. Full-text articles

will be stored within Covidence. The data extraction tool will be built within Covidence using a customised template aligned with the extraction framework described in this protocol. Extracted data will be exported to Microsoft Excel for further analysis and tabulation.

Reporting results / Analysis of the evidence

Reporting of results will capture the following elements: (a) bibliographic information (author, year, country); (b) study characteristics (design, sample size, participant age range); (c) intervention characteristics (stated aims, theoretical basis, delivery method, duration); (d) the presence or absence of social group processes across both intervention form (activities, content, delivery format) and function (targeted mechanisms, theoretical frameworks, intended change processes), specifically coding for peer influence, group norms, and social identity processes; and (e) reported outcomes. The reporting framework will be modified and revised as necessary during the process of extracting data from each included study. Modifications will be detailed in the full scoping review. Any disagreements that arise between the reviewers will be resolved through discussion or with a third reviewer.

Presentation of the results To support the presentation of findings, the following outputs are planned:

A PRISMA flow diagram will illustrate the study selection process, including the number of records identified, screened, excluded (with reasons), and included (Page et al., 2021).

A summary table will present the characteristics of each included intervention, including author and year, country, study design, sample size, age range, intervention name, theoretical framework, stated aims, delivery method, and reported outcomes.

A second table will present the results of the social group processes coding for each included intervention, indicating the presence or absence of peer influence, group norms, and social identity processes across both form (activities, content, delivery format) and function (targeted mechanisms, theoretical frameworks, intended change processes).

A summary figure will present the proportion of included interventions that incorporate each of the three social group processes, providing a visual overview of the extent to which the current intervention landscape addresses social dynamics. Where data permit, a further breakdown may compare the incorporation of social group processes across interventions targeting primary

school-aged children versus secondary school-aged adolescents.

Language restriction This review will only include papers published in English.

Country(ies) involved United Kingdom.

Keywords adolescents; children; interventions; misinformation; peer influence; social identity.

Contributions of each author

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