Review article

Characteristics of communities for supporting substance use prevention: a scoping review

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Abstract

Objective: To identify key community characteristics that effectively support the prevention of substance use.

Methods: A scoping review was conducted, synthesizing evidence from 30 review articles encompassing over 1,050 studies across various contexts.

Results: Ten community characteristics were identified as protective factors against substance use, including strong social cohesion, equitable access to resources, effective policy enforcement, and cultural engagement. The findings also emphasize the value of multi-level approaches that integrate social, economic, and environmental dimensions to strengthen community resilience and reduce the risk of substance use.

Conclusion: This review offers practical insights for policymakers and public health professionals in developing sustainable, community-based strategies for substance use prevention.

Keywords: community resilience, policy enforcement, social cohesion, substance use prevention

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บทความปริทัศน์

ลักษณะของชุมชนที่สนับสนุนการป้องกันการใช้สารเสพติด :
การทบทวนวรรณกรรมแบบกำหนดขอบเขต

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บทคัดย่อ

วัตถุประสงค์ : เพื่อระบุลักษณะเด่นของชุมชนที่ช่วยส่งเสริมการป้องกันการใช้สารเสพติดได้อย่างมีประสิทธิภาพ

วิธีการ : ทบทวนวรรณกรรมแบบกำหนดขอบเขต โดยสังเคราะห์หลักฐานจากบทความปริทัศน์ 30 ฉบับ ซึ่งครอบคลุม
งานวิจัยมากกว่า 1,050 เรื่องในหลากหลายบริบท

ผล : พบคุณลักษณะของชุมชน 10 ประการที่เป็นปัจจัยปกป้องการใช้สารเสพติด เช่น ความผูกพันทางสังคมที่เข้มแข็ง
การเข้าถึงทรัพยากรอย่างเท่าเทียม การบังคับใช้นโยบายอย่างมีประสิทธิภาพ และการมีส่วนร่วมทางวัฒนธรรม ผลการศึกษา
ยังชี้ให้เห็นถึงความสำคัญของการดำเนินงานแบบหลายระดับที่ผสมผสานกลยุทธ์ทางสังคม เศรษฐกิจ และสิ่งแวดล้อม
เพื่อเสริมสร้างความยืดหยุ่นของชุมชนและลดความเสี่ยงต่อการใช้สารเสพติด

สรุป : การศึกษานี้นำเสนอข้อมูลเชิงลึกในทางปฏิบัติสำหรับผู้กำหนดนโยบายและผู้ปฏิบัติงานด้านสาธารณสุข ในการออกแบบ
กลยุทธ์ที่ยั่งยืนและตั้งอยู่บนฐานของชุมชนเพื่อป้องกันการใช้สารเสพติด

คำสำคัญ : การบังคับใช้นโยบาย, การป้องกันการใช้สารเสพติด, ความเข้มแข็งของชุมชน, ความสัมพันธ์ทางสังคม

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Prior knowledge: Community-based approaches can address substance use risks but lack detail on specific factors driving success.

New knowledge gained: Ten critical community-level characteristics for mitigating substance use risks and fostering resilience were identified: empowered community capacity; resourceful access to treatments; educative communication systems; regulation of related policies; economic stability; active and healthy lifestyles; safe and supportive environments; engaged and collaborative participation; cultural empowerment; and supportive and effective school systems

Application: The findings provide guidance for sustainable policies and interventions to enhance resilience and reduce substance use in communities.

Introduction

Substance use is a significant global health challenge that affects millions of individuals worldwide. According to the World Health Organization (WHO), approximately 35 million people globally suffer from drug use disorders, while harmful alcohol use contributes to over 3 million deaths annually.[1,2] The impact of substance use extends beyond individuals, influencing families, communities, and healthcare systems, and it is closely linked to mental health issues such as depression, anxiety, and suicide.[3,4] The consequences are profound, leading to physical health deterioration, social isolation, and economic burdens, with certain populations—such as adolescents, individuals with low socioeconomic status, and those living in marginalized communities—being disproportionately affected.[5]

Addressing this issue requires comprehensive, community-based strategies that not only focus on treatment but also emphasize prevention and resilience-building. Key factors like social cohesion, access to resources, and strong social networks are critical in mitigating substance use at the community level.[6] However, despite increasing recognition of these community-level attributes, a comprehensive understanding of their interactions remains limited, with existing studies often focusing on isolated aspects rather than holistic, integrated strategies.

Previous studies have highlighted the role of social networks, policy enforcement, healthcare access, and community engagement in substance use prevention.[1,4] Nevertheless, these studies typically examine these factors independently, leading to a fragmented understanding of what truly constitutes an effective community intervention. This lack of synthesis across diverse review studies presents a challenge for developing cohesive, multi-dimensional approaches.

This review aims to address these knowledge gaps by synthesizing existing evidence from reviews to provide a more cohesive framework for community-based substance use prevention strategies. By identifying common themes and community-level attributes across different contexts, this scoping review seeks to clarify the complex interplay of social, economic, and environmental factors in shaping community resilience. The findings from this review will contribute to the development of adaptable, multi-level strategies for building resilient communities that can better prevent and mitigate substance use on a global scale.

Methods

A scoping review of reviews was deemed the most appropriate method for this study due to the vast number of primary studies available in the field, which would make a synthesis of individual

studies unworkable and time-consuming. This method allows us to integrate evidence from diverse interventions, populations, and settings into a coherent and concise overview. By comparing and contrasting separate reviews, we can generate new insights and synthesize a comprehensive understanding of the characteristics that contribute to community-level substance use prevention. This approach also provides a high-level summary of existing evidence, making it accessible for decision-makers and practitioners.

Inclusion and exclusion criteria

The inclusion criteria for this scoping review were designed to identify studies that explore community-level characteristics and their role in preventing substance use. Eligible studies were reviews of any type focusing on community-based strategies, interventions, or attributes related to substance use prevention. Specifically, the review included studies that examine protective and risk factors associated with community resilience, such as social cohesion, community engagement, access to resources, and policy enforcement. The population of interest were community-based groups of all ages and demographics, with an emphasis on collective outcomes. To ensure contemporary relevance, the review is limited to studies published within the five years leading up to December 2024. Only reviews published in English were included to ensure the reliability and validity of the findings.

Search Strategy

We conducted a comprehensive search on PubMed. Search terms included ((community) OR ("community-based")) AND ((prevention) OR (reduce)) AND (substance abuse). Filters applied were as follows: published in the last five years, review, and systematic review

Study selection

The selection of studies was performed by two independent reviewers (JS and TK) in two stages: 1) title and abstract screening, and 2) full-text review, based on the inclusion criteria. During both stages, the reviewers separately assessed all studies, and the results were compared. Any disagreements were discussed and resolved by NR (Figure 1).

Data Extraction and Analysis

Two reviewers independently extracted data on study characteristics, methodologies, findings, and community attributes associated with substance use prevention. Any discrepancies were resolved through consensus. Narrative synthesis was employed to integrate the findings and identify recurring themes.

Results

From an initial pool of 409 records, 30 reviews met the inclusion criteria.[5-34] These reviews synthesized data from over 1,050 primary studies, covering diverse geographical and socio-economic contexts (Table 1).

The included studies consist of both systematic and narrative reviews, collectively addressing various substances such as methamphetamine, alcohol, opioids, cannabis, vaping, and tobacco. These reviews examine a range of community-based interventions, harm reduction strategies, and cultural adaptations aimed at preventing substance use and supporting recovery.

Community-level characteristics

Through a narrative synthesis, ten core community-level characteristics were identified as pivotal to supporting substance use prevention. These characteristics are presented below, organized into distinct thematic categories (Table 2).
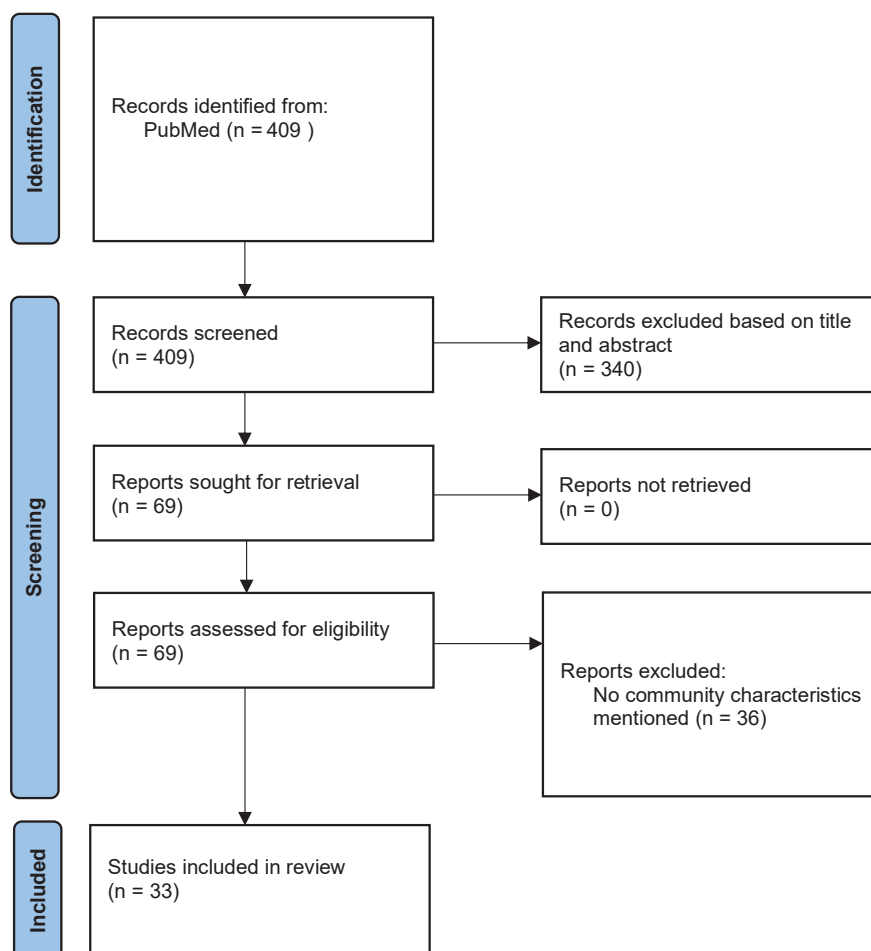
Figure 1 PRISMA flow diagram for study selection

Table 1 Characteristics of included studies

No.	Author, year	Study design	Substance type	Population	No. of included documents
1.	Perri et al., 2023[5]	Rapid review	Primarily opioids (e.g., fentanyl)	People who use drugs (PWUD)	22
2.	Valdez et al., 2020[6]	Systematic review	Alcohol, tobacco, and other drugs	Youth (ages 10 - 24)	15
3.	Galaj et al., 2020[7]	Narrative review	Various (cocaine, methamphetamine, heroin, nicotine, alcohol)	Not specified	Not specified
4.	Venugopal et al., 2021[8]	Scoping review	Various (general, opioids, tobacco, alcohol)	Indigenous communities in Canada, USA, and Australia	22
5.	Snijder et al., 2020[9]	Systematic review	Alcohol, tobacco, cannabis, and other drugs	Indigenous adolescents (ages 10–19) in the USA, Canada, Australia, and New Zealand	26
6.	Hafford-Letchfield et al., 2020[10]	Systematic review	Primarily alcohol, also includes OTC drugs, prescription medication, and illegal drugs	Older adults (aged 45+) with problematic substance use in community settings	19

Table 1 Characteristics of included studies (countinued)

No.	Author, year	Study design	Substance type	Population	No. of included documents
7.	Krakouer et al., 2022[11]	Systematic review	Alcohol, tobacco, opioids, cannabis, and other drugs	First Nations adults in Australia	17
8.	Ghelbash et al., 2024[12]	Narrative review	Substance use, suicide, risky sexual behaviors	Adolescents aged 10 - 19, global focus with emphasis on LMICs	24
9.	Chase-Begay et al., 2023[13]	Systematic review	Alcohol, marijuana, methamphe-tamines, opioids, and general substance use	American Indian and Alaska Native (AIAN) adults in urban and reservation settings	10
10.	Orjiakor et al., 2023[14]	Systematic review	Methamphetamine	Community-level actors across global settings (youths, law enforcement, local leaders, at-risk groups)	19
11.	Walmisley et al., 2024[15]	Scoping review	Alcohol-related harms	Communities globally, with focus on LMIC (shared location, adult drinkers, all community members)	61
12.	Sirdifield et al., 2020[16]	Systematic review (narrative synthesis)	Alcohol, opioids, stimulants, general substance misuse (including poly-substance use)	People under community supervision (probation/parole), mostly adults in UK, USA, Ireland, Mexico	31
13.	Stewart et al., 2022[17]	Systematic review	Illicit drugs (includes opioids, methamphetamines, etc.)	People with co-occurring mental illness and illicit drug use post-prison release	13
14.	Gu et al., 2024[18]	Narrative review with systematic search elements	Multiple substances (heroin, morphine, methamphetamine, etc.)	People with substance use disorders and associated criminal behavior	47
15.	Johnson et al., 2022[19]	Policy review and country case series (descriptive)	Multiple substances (opioids, methamphetamine, cannabis, cocaine base paste, alcohol)	Communities in LMICs (Ukraine, Philippines, Nigeria, Peru)	4
16.	Venner et al., 2022[20]	Scoping review	Substance use disorders (general: alcohol, tobacco, prescription, illicit drugs)	Latin communities in the U.S. and Latin America	30
17.	Richer et al., 2023[21]	Systematic review	Drugs and alcohol (including opioids, methamphetamine, cannabis)	Indigenous adults in North America (USA and Canada)	18
18.	Huynh et al., 2022[22]	Systematic review and meta-analysis	Tobacco	Low socioeconomic status populations experiencing homelessness, poverty, unemployment, mental health challenges, or substance use	33

Table 1 Characteristics of included studies (countinued)

No.	Author, year	Study design	Substance type	Population	No. of included documents
19.	Côté et al., 2024[23]	Systematic review and meta-analysis	Cannabis (recreational use)	Young adults (ages 16 - 35) in community settings	19
20.	Sánchez-Puertas et al., 2022[24]	Narrative and critical review	Alcohol	Children and youth (up to 19 years old), across school, family, community, and web-based settings	22
21.	Snijder et al., 2021[25]	Systematic review	Tobacco, alcohol, cannabis, petrol, methamphetamine, kava, opioid	Aboriginal and Torres Strait Islander Australians	38
22.	Nawi et al., 2021[26]	Systematic review	Various illicit drugs (excluding tobacco and alcohol)	Adolescents (aged 10 - 18) worldwide, with focus on risk and protective factors	23
23.	Masterton et al., 2022[27]	Realist review	Multiple substances (primarily unregulated drugs submitted to drug checking services)	People who use drugs (PWUD), including marginalized and recreational users	133
24.	Maina et al., 2020[28]	Scoping review	Alcohol, tobacco, cannabis, inhalants, legal and illegal drugs	Indigenous preteens (ages 7 - 13) in CANZUS countries (Canada, Australia, New Zealand, USA)	11
25.	Grigsby et al., 2023[29]	Scoping review	Cannabis	Non-institutionalized community populations (adolescents and adults)	83
26.	Gao et al., 2024[30]	Scoping review	Substance use (with co-occurring mental health services)	East and Southeast Asian immigrant youth and families (ages 12 - 24)	73
27.	Grummitt et al., 2021[31]	Systematic review	General substance use (multiple types including alcohol, tobacco, drugs)	Young people (10 - 24 years) exposed to childhood adversity	50
28.	Edwards et al., 2022[32]	Systematic review	Substance use disorders (general; alcohol and drugs)	Women exiting prison with substance use disorders	12
29.	Clements et al., 2021[33]	Conceptual paper / narrative review	Addiction (general)	Faith-based communities and health communicators	Not applicable
30.	Bhawalkar et al., 2024[34]	Systematic review	Opioids	General population in India	30

Table 2 Community-level characteristics that contribute to the reduction of substance use

Community-level characteristics	Details
1. Empowered community capacity	
Resilient and skilled	• Communities that are empowered with skill development, training, and robust programs to build resources and resilience.[5-9]
Holistic and inclusive	• Communities providing well-rounded support - holistic (spiritual, emotional, cultural) and inclusive (community-led, tribally diverse, participatory) that addresses social, emotional, physical, and economic needs.[9-13]
Accessible and supportive	• Equipped with helplines, recovery spaces,[14] peer and family support,[8] first aid,[15] health promotion,[6,15,16] and healthy behavior change support including life skill training, counselling and motivation interviewing.[16,17]
Strong social support networks	• Family ties, peer relationships, and community involvement promoting recovery and emotional resilience.[7,12,18-23] • Peer groups and media promoting healthy norms and discouraging substance use.[16,18,24-26]
2. Resourceful access to treatments	
Comprehensive and proactive	• Communities offering diverse healthcare services, mobile units, information resources,[12] adequate funding,[13] and advanced treatments[16] like pharmacological, behavioral therapy and counselling.[22]
Barrier-free and equitable	• Ensuring healthcare access without limitations of distance, cultural differences, or insurance coverage.[10,11,27]
3. Educative communication systems	
Informed and aware	• Communities fostering knowledge through educational campaigns, skill-building workshops, and public events.[6,7,10-12,14,18,21-24,28-31]
Engaging and transparent	• Dispelling myths and misconceptions (e.g., vaping safety) through creative, truthful, and accessible communication.[10,18]
4. Regulation of related policies	
Restrictive and protective	• Enforcement of alcohol and drug policies for limited access to substance,[6,12,14,18,21,23, 26-27,29] including regulate advertising[11,15] and increase tax.[15]
Limited substance accessibility	• By increasing price[26] and tax[29] and regulating on marketing[15] to reduce substance use rate.[15,24,25]
5. Economic stability	
Sustainable and supported	• Communities with less poverty,[11,13,15-16,22,2]7 less homelessness,[11,13,27] less unemployment[11,13,15-17,22,32] rates and economic support systems,[12,16-17,27] which help to eliminate education gap[30] and housing problem,[11,17] exhibited lower rates of substance abuse.
6. Active and healthy lifestyles	
	• Communities provide exercise,[7] sport,[9] art,[9] festival,[9] and unstructured activities[26] in communities to reduce stress and lead to decrease substance use risk.
7. Safe and supportive environments	
	• Communities with safe spaces,[31] drug-free workplaces,[14] and schools that provide nurturing and protective environments.[7,28]
8. Engaged and collaborative participation	
	• Communities fostering peer support, partnerships, and social cohesion through collaborative efforts and meaningful engagement.[8,13,14,23,31,32]

Table 2 Community-level characteristics that contribute to the reduction of substance use (countinued)

Community-level characteristics	Details
8. Engaged and collaborative participation (countinued)	
	• Youth organizations, families, and schools collaborating to promote healthy behaviors and impactful initiatives[6,8]
	• Recreational activities and consistent reinforcement solidifying preventive outcomes.[7,28]
9. Cultural empowerment	
Proud and identity-focused	• Communities celebrating cultural and religious practices that foster identity, abstinence, belonging, and pride.[8,9,13,21,26,28,31]
Respectful and Nonjudgmental	• Cultural, family, and social norms that discourage stigma and normalize seeking help and healthy behaviors. [5,10,14-16,22,23,25,27,30,33,34]
Encouraging and supportive	• Fostering a culture that discourages substance use through strong community values.[24,34]
10. Supportive and effective school systems	
Connected and nurturing	• Schools with supportive adults, counsellors, and extracurricular activities fostering a sense of belonging and safety.[30,26]
Safe and empowering	• Schools offering mental health and anti-bullying programs to protect and empower students.[30,31]

Discussion

The findings of this study underscore the critical role of community-based factors in mitigating substance use risks. By integrating diverse characteristics such as empowerment, resource access, cultural engagement, and supportive environments, communities can effectively foster resilience and reduce the prevalence of substance use (Figure 2). These results align with previous research and offer actionable insights for public health interventions.

Empowered communities, supported by skill development programs and holistic services, significantly contribute to reducing substance use risks. Studies have shown that community capacity building, including training and program development, enhances resilience and provides critical resources to address substance use challenges.[35] Moreover, comprehensive support addressing social, emotional, physical, and economic needs echoes findings by Hawkins et al.,[2] which suggest that multifaceted interventions yield better outcomes in substance

abuse prevention. The availability of recovery spaces, peer support, and coordinated services further highlights the importance of accessible and integrated care. For example, Wallerstein et al.[36] emphasize that community-based participatory approaches can improve health outcomes by fostering trust and shared decision-making, mirroring the results of this study.

This study highlights the significance of eliminating barriers to healthcare and providing diverse treatments, including behavioral therapies and pharmacological support. The availability of mobile units and information resources aligns with evidence from Viswanathan et al.,[37] which found that tailored interventions enhance treatment access and effectiveness, particularly in underserved populations. Addressing cultural, geographical, and financial barriers to care also supports findings by Patel, et al.,[38] which identified equity in healthcare access as a cornerstone of successful substance use interventions.

Figure 2 Community-level characteristics that contribute to the reduction of substance abuse

The role of education and communication campaigns in raising awareness and debunking myths, such as the perceived safety of vaping, reflects prior findings by Wakefield et al.,[39] which demonstrated the impact of targeted public health campaigns on behavior change. This study's emphasis on diverse educational approaches, including workshops, social media, and public events, reinforces the value of multi-platform outreach in influencing community norms and reducing substance use risks.

The enforcement of policies restricting substance access and regulating advertising aligns with the study by Babor et al.,[3] which highlights the effectiveness of taxation and marketing controls in reducing substance use. Furthermore, this study's findings on the importance of economic stability are consistent with the study by Marmot and Wilkinson,[40] which indicates that addressing poverty, unemployment, and homelessness reduces health disparities and substance use rates. Efforts to shift cultural and social norms by reducing stigma also reflect findings by Corrigan et al.,[41] which noted that stigma reduction campaigns can promote help-seeking behaviors and improve treatment adherence.

Safe environments and strong social support systems, including family, peer, and community ties, are central to fostering recovery and resilience. This aligns with the study by Bond et al.,[42] which found that positive relationships and supportive networks play a protective role against substance use.

The study highlights the benefits of cultural and religious engagement in fostering identity, abstinence, and social cohesion. These findings are supported by Larson et al.,[43] who demonstrated that spirituality and religious practices can serve as protective factors against substance use, promoting moral and social support

Implications

This study emphasizes the necessity of integrated, community-focused approaches to address substance use risks effectively. Policymakers are urged to implement and enforce comprehensive regulations, including restrictions on substance

access, marketing, and pricing, while simultaneously addressing economic disparities that contribute to vulnerability to substance use. Public health programs should prioritize holistic, inclusive strategies that blend education, resource accessibility, and cultural relevance to strengthen resilience and promote healthier behaviors.

Addressing systemic barriers to healthcare— such as geographical, financial, and cultural constraints—is essential for expanding the scope and impact of interventions. Furthermore, cultivating community engagement through collaboration with local stakeholders, educational institutions, and families can enhance social cohesion and trust, creating environments that support recovery and discourage substance use.

The results also underscore the value of reducing stigma and strengthening cultural and religious connections as means to encourage help-seeking behaviors and enhance social inclusion. By applying these insights, public health practitioners and policymakers can develop more sustainable and impactful interventions to build resilient, substance-free communities.

Limitations

This scoping review provides valuable insights into the community-level characteristics that support substance abuse prevention. However, several limitations must be acknowledged. First, the review is limited by the scope of included studies, as only those published in English and within the last five years were considered. This limitation may have excluded relevant findings from other linguistic or older sources, potentially limiting the breadth of insights gathered. Second, the reliance on published reviews introduces the possibility of publication bias. Additionally, although this review synthesizes

findings from diverse geographical and socio-economic contexts, the majority of included studies were conducted in high-income countries. Therefore, the applicability of these findings to low-and middle-income countries (LMICs) may be limited. Lastly, while the review emphasizes the importance of integrating multiple community characteristics, it does not systematically assess the relative effectiveness of individual interventions or features, which could help prioritize strategies for specific contexts or populations.

Conclusion

This scoping review identifies ten critical community-level characteristics that contribute to substance use prevention and the promotion of community resilience. Empowered and resourceful communities with equitable access to healthcare, education, and social support systems are well-positioned to reduce the prevalence of substance use. Holistic approaches that address social, emotional, economic, and physical needs—combined with effective policy enforcement, cultural engagement, and stigma reduction—create supportive environments that promote both prevention and recovery.

Nonetheless, several knowledge gaps remain. First, the relative effectiveness of each community attribute has not been systematically evaluated, making it difficult to prioritize strategies across different settings. Second, the majority of included reviews were conducted in high-income countries, limiting the generalizability of findings to LMICs, where contextual factors such as infrastructure limitations and cultural dynamics may significantly influence outcomes. Third, few studies have examined the long-term sustainability or cost-effectiveness

of community-based interventions, particularly in resource-constrained environments.

Future research should focus on evaluating the interactions and comparative impacts of different community characteristics. It is also essential to expand research efforts in LMIC contexts, incorporating participatory approaches to ensure culturally relevant and context-specific findings. Moreover, studies that assess the scalability and cost-effectiveness of integrated community strategies can provide critical guidance for policymakers and public health planners aiming to implement sustainable prevention models.

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Author contributions

Jidapa Senwirat: Methodology; investigation; data curation; formal analysis; writing - review and editing. Thanaphat Khamthuam: Methodology; investigation; data curation; formal analysis; writing - review & editing. Navinee Regnault: Conceptualization; methodology; formal analysis; writing - original draft; writing – review and editing; supervision.

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