Empowerment and Substance Use Prevention among Youth of Color: A Scoping Review

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Abstract

Purpose of the Review Concerns related to harmful substance use during adolescence continue to persist, and recent trends show racial and ethnic disparities. There is a need to identify effective and culturally responsive prevention approaches focused on communities of color. Innovative approaches to substance use prevention and youth health equity have included those based on youth empowerment and community-based participatory research. The purposes of this review were to incorporate studies that describe youth of color engagement and empowerment in substance use prevention, with a primary emphasis on alcohol use, and to identify related outcome studies.

Recent Findings This scoping review synthesized studies into empowerment-based youth participatory action research and empowerment theory outcome-based studies. Findings describe participant descriptions, objectives, participatory approaches, primary substances of foci, and youth empowerment-based outcomes.

Summary Implications provide guidelines for youth empowerment within substance use prevention programming and recommendations for youth-engaged substance use prevention research. Additional research is needed within the area of alcohol use prevention, specifically.

Keywords BIPOC Youth · Substance Use · Alcohol Use · Prevention · Empowerment · Participatory Research · Scoping Review

Introduction

In light of the COVID-19 pandemic and worsening trends in child and adolescent emotional and mental health, concerns related to adolescent substance use have increased within the United States (US) [1, 2]. According to the Substance Abuse and Mental Health Services Administration (SAMHSA) 2022 US National Survey on Drug Use and Mental Health, 14.3% (or 3.7 million) adolescents (12 to 17 years of age) used an illicit drug in the past year; 6.8% (or 1.8 million) people used alcohol during the past month; and 3.2% (or 834,000) adolescents binge drank [3]. The proportion of adolescents who used drugs in 2022 was higher among American Indian or Alaska Native (31.7%), Multiracial (35.1%), and Black or African American persons (26.7%) when compared to non-Hispanic Whites (25.8%) [3]. Past year drinking was highest among White youth and young adults, 12 to 20 years of age (32.3% in this age group); however, youth of color were disproportionately affected, when considered alongside their total population in the US [4, 5]. The proportion of adolescents and young adults of color who used alcohol in 2022 was highest among Multiracial (28.2% in this age group), Hispanic or Latinx (27.1% in this age group), and American Indian or Alaska Native persons (23.5% in this age group) [5]. Such rates are sobering and contribute to negative life-outcomes for adolescents and young adults.

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Underage drinking has declined among adolescents and young adults (12 to 20 years of age) by 47.4% from 2002 to 2022 [5]; yet, alcohol is involved in 178,000 (approximately 120,000 male deaths and 59,000 female deaths) deaths per year [6], which is higher than the number of drug overdose deaths [7]. Moreover, excessive drinking is responsible for about 4,000 among people under the age of 21 each year [7]. The consequences of underage alcohol use are numerous including an increased risk of developing alcohol use disorder (AUD), the impact on adolescent brain development, worsened mental health conditions and illness, and a greater risk for suicidal ideations and attempts [8, 9]. Furthermore, alcohol, tobacco, and other drug use (ATOD) prevention efforts focused on Black, Indigenous, and Persons of Color (BIPOC) communities have been less than adequate [10] with less than desirable effects [11] given the increased number of access points to drugs and alcohol [12–14] and minimal access to quality prevention and intervention services [10, 15]. Alcohol specific prevention, while having slightly improved outcomes, compared to general ATOD prevention programming, also necessitates improvements in programming and delivery for BIPOC youth. And although community-based prevention approaches are documented, further research and development in these areas are needed.

Current trends in ATOD prevention include community-based approaches rooted in public health that involve multiple sectors working within coalitions to implement multi-level strategies [16–19]. These innovative prevention approaches have included those based on youth empowerment, Youth Participatory Action Research (YPAR), and community-based participatory research [20]. These approaches tend to benefit youth participants and improve prevention [21] and youth health equity outcomes [22]. In practice, much of the Participatory Action Research (PAR) in the ATOD prevention field has been framed through Empowerment Theory [23–25].

Empowerment theory has been applied across numerous disciplines [15, 23, 26–28]. Empowerment as a multidimensional construct has been presented [29–31], yet, only as a higher-order multidimensional construct, recently (see Peterson 2014) [32]. In this review, we concentrated on two existing constructs of empowerment theory: *psychological empowerment* and *organization empowerment* [31]. These dimensional constructs of empowerment theory were chosen as conceptual framings because each describe specific features that characterize individuals and organizations that are empowered, as well as processes that may facilitate youth empowerment. Both psychological empowerment and organizational empowerment have been applied in research on substance use prevention [15, 33].

Psychological empowerment was initially conceptualized by Zimmerman [31], and advanced by Christens [29]. Psychological empowerment consists of four interrelated dimensions: emotional, cognitive, behavioral, and relational. The *emotional dimension* of psychological empowerment involves the ways in which people feel about themselves as they engage in proactive behaviors to gain greater control of their lives in the context of changing their sociopolitical or physical environment [31]. Concepts relevant to this dimension include feelings of self-efficacy, perceived control, competence, and mastery. The *cognitive dimension* of psychological empowerment involves individuals critical awareness and understanding of the community or sociopolitical environment [31]. Concepts relevant to this dimension involve skill development, understanding of causal agents in communities, and knowledge of the ways in which people may mobilize the resources needed to create positive change. The *behavioral dimension* of psychological empowerment refers to individuals actions. These actions include civic engagement, coping behaviors, and participation in community groups and organizations [31]. The *relational dimension* of this theory refers to aspects of interpersonal processes and transactions that are vital to the development and exercise of social power in the sociopolitical domain [29]. Concepts relevant to this dimension include collaborative competence, facilitating others empowerment, and bridging social divisions.

The contemporary nomological construction of organizational empowerment was conceptualized by Peterson and Zimmerman [30]. Zimmerman [34] defined organizational empowerment as efforts that create opportunities for the psychological empowerment of members, as well as the effectiveness of the organization that is necessary to achieve its goals. Peterson and Zimmerman [30] expanded this definition to present a framework that included specific features that represented empowered organizations. The framework included three components: intraorganizational, interorganizational, and extraorganizational. *Intraorganizational empowerment* involves the internal structure and functioning of groups that can provide the infrastructure for members to obtain goals [30]. *Interorganizational empowerment* refers to the connections or linkages between organizations and includes concepts such as networking and resource procurement [30]. *Extraorganizational empowerment* refers to the influence that groups can have on the larger environments of which they are a part [30]. Together, the features categorized within interorganizational, interorganizational, and extraorganizational components provide an understanding of organizations that are empowered. Much of the literature has focused on individual or psychological empowerment; however, the totality of empowerment theory has been used to inform, develop, and strengthen youth action in ATOD prevention and youth-engaged research, which enables youth to be active partners in change.

Youth participatory action research studies that draw on empowerment theory — moving forward described as *E-YPAR* to improve readability and clarity but not to introduce a new term to the literature — to inform ATOD prevention within BIPOC communities are somewhat documented within the extant literature [35–39]. Through this framework, youth are centered as change-agents to promote health and wellness and prevent and decrease ATOD use and other adverse health behaviors. Placing young people at the forefront of prevention efforts ensures these approaches are culturally-grounded and relevant with the guidance of youth voices. These community-engaged approaches diverge from strategies used in ATOD prevention in the past [40, 41].

Historically, prevention efforts have focused on creating individual-level change, such as youth behavior or attitude changes. The current prevention trends focus on approaches that aim to create organization-level or community-level change, often through coalition structures that involve and rely on the participation of a broad range of community partners to represent the needs and values [18, 42, 43]. Because youth are embedded in complex community environments, empowerment-based frameworks that center on youth voices are critical to effectively target the ecological contexts where ATOD occurs. Not only have E-YPAR frameworks shown promise in decreasing ATOD among youth [44], but elsewhere, outcome-based studies have demonstrated relationships between empowerment and other health behaviors [15, 45–47]. A growing body of literature situates youth within empowerment-based participatory ATOD prevention initiatives. However, intervention and prevention projects rarely focus exclusively on alcohol use, but rather multiple substances, which include alcohol, as well as other drug use. Specifically, no review, as far as these authors are aware, has evaluated the extant literature with a primary focus on both empowerment and BIPOC youth.

Purpose of this Review

The purpose of this review is to (1) identify studies that describe BIPOC youth engagement and empowerment in ATOD prevention activities, with an emphasis on alcohol, and (2) identify and describe outcome-based studies examining relationships between BIPOC youth empowerment, community engagement in prevention, and ATOD outcomes, with an emphasis on alcohol. Through this scoping review, we synthesized primary substances of foci, participant descriptions, objectives, participatory approaches, methodologies, youth and empowerment-focused outcomes, and documented pitfalls. As a scoping review, we focus on broadly mapping the evidence that is present within the extant research [48].

Methods

The current scoping review study is guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [49].
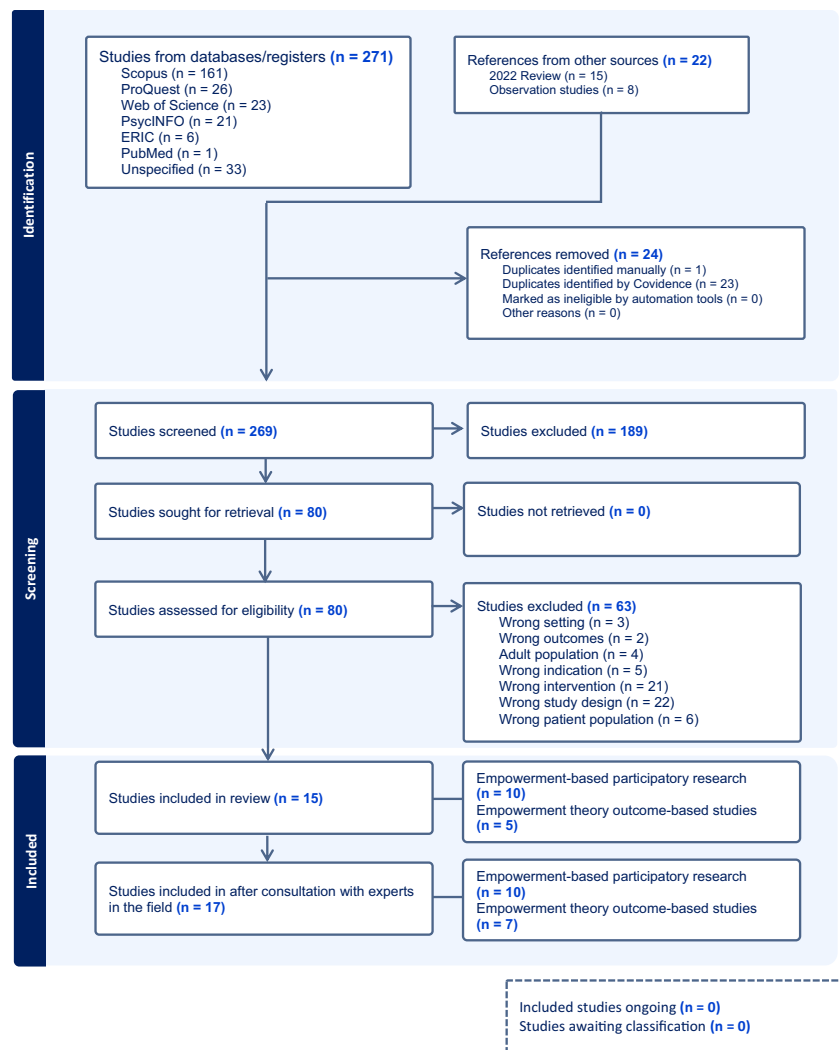
Sources

Inclusion criteria included peer-reviewed English and Spanish language articles published from any date to April 1, 2024, that referred to adolescent and youth ATOD use. We included articles on E-YPAR projects for youth ATOD prevention, youth-led community-based participatory research, and studies addressing ATOD prevention as a primary or secondary outcome alongside empowerment constructs such as psychological empowerment and community-engaged participation. All studies described research that was either driven by BIPOC youth or study outcomes were examined among BIPOC youth (versus adult-led or in partnership with adults, and outcomes focused on adults).

Articles inconsistent with the inclusion criteria or were editorials, reviews, historical, or theoretical in nature were excluded. Additionally, we excluded articles on adult-led interventions with youth collaborators and publications from non-peer-reviewed sources.

Search Strategy

To identify references, we searched databases, including PsycINFO, PubMed, Scopus, ERIC, Web of Science, and ProQuest. This was followed by an analysis of the text contained in the title, abstract, and index terms of retrieved articles. We used MeSH heading, keyword, and topic searches depending on the search engine. Our search included terms associated with the study population (separated by OR): adolescent (OR) adolescence (OR) youth (AND) terms that contained empowerment (AND) participation (OR) participatory (AND) terms that targeted he outcome: substance AND use (OR) substance (AND) abuse (OR) substance (AND) misuse (OR) alcohol (OR) alcohol use (OR) alcohol misuse (OR) alcoholism. Terms were not translated into Spanish. We also consulted existing literature and meta-analyses [50] that have examined this topic. We consulted experts within the field of empowerment and prevention science to ensure accuracy in our retrieval processes and identify pertinent literature. Special attention was given to those studies examining alcohol use; search terms remained broad to allow for the inclusion of numerous substances.

Fig. 1 PRISMA flow diagram. PRISMA, preferred reporting items for systematic reviews and meta-analyses. Note. This PRISMA diagram contains public sector information licensed under the Open Govern

Identification

Studies from databases/registers **(n = 271)**
Scopus (n = 161)
ProQuest (n = 26)
Web of Science (n = 23)
PsycINFO (n = 21)
ERIC (n = 6)
PubMed (n = 1)
Unspecified (n = 33)

References from other sources **(n = 22)**
2022 Review (n = 15)
Observation studies (n = 8)

References removed **(n = 24)**
Duplicates identified manually (n = 1)
Duplicates identified by Covidence (n = 23)
Marked as ineligible by automation tools (n = 0)
Other reasons (n = 0)

Screening

Studies screened **(n = 269)** → Studies excluded **(n = 189)**

Studies sought for retrieval **(n = 80)** → Studies not retrieved **(n = 0)**

Studies assessed for eligibility **(n = 80)** → Studies excluded **(n = 63)**
Wrong setting (n = 3)
Wrong outcomes (n = 2)
Adult population (n = 4)
Wrong indication (n = 5)
Wrong intervention (n = 21)
Wrong study design (n = 22)
Wrong patient population (n = 6)

Included

Studies included in review **(n = 15)** → Empowerment-based participatory research **(n = 10)**
Empowerment theory outcome-based studies **(n = 5)**

Studies included in after consultation with experts in the field **(n = 17)** → Empowerment-based participatory research **(n = 10)**
Empowerment theory outcome-based studies **(n = 7)**

Included studies ongoing **(n = 0)**
Studies awaiting classification **(n = 0)**

Study Selection

See PRISMA Diagram for the article selection process (Fig. 1). Four study team members (DL, KG, CV, AR) inspected all titles and abstracts according to the inclusion criteria. We recorded the author(s), journal, and year of publication from each manuscript that met the inclusion criteria. Proportionate agreement occurred 87.55% of the time during title and abstract review. During disagreements, the four authors met to discuss and reach a 100% consensus, resulting in 81 retained articles.

After the first round of screening, full-text reviews were conducted among the same four study team members. We engaged in the same process of resolving disagreements with two additional co-authors (RR, AP) until 100% consensus was reached. Proportionate agreement occurred 70% of the time. We then consulted experts in within the field to ensure our review was comprehensive and rigorous. The resulting 17 articles are described in the results and Table 1 and Table 2. We organized and sorted the 17 articles into two primary domains: (1) E-YPAR studies; and (2) Empowerment theory outcome-based studies. Table 2 presents themes to support recommendations for prevention research.

Data Extraction and Analysis

Four study team members (DL, KG, CV, AR) supported the data extraction process, using guidance by Pollock and colleagues [51]. After thorough reading of each of the included studies, the data extraction table was created in Microsoft Excel with columns for each of the data elements extracted. The data elements were guided by our overall study purpose and included all elements contained in Table 1. The final data extraction table was reviewed and approved by the full team. Three study team members (DL, CV, AR) completed data extraction of all included articles

Table 1 Empowerment youth participatory action research (YPAR) and empowerment theory outcome-based studies ($N = 17$)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Empowerment-based Participatory Research													
Edberg, MC, Cleary, SD, Andrade, EL, Evans, WD, Quinteros-Grady, L, Alvayero, RD, & Gonzalez, A	2022	The Adelante Project: Realities, challenges and successes in addressing health disparities among Central American immigrant youth	Cultural Diversity and Ethnic Minority Psychology	Central American and Mexican mixed-status immigrant youth (14 -18 years of age)	Community Level Study: Youth (12–17) and Young adults (18–24) n = 3,600 across 3 waves (n = 1,200 per wave) Cohort Survey "parent-youth" dyads (n = 238) Social Marketing Campaign Study Youth (12–17) (n = 1,549)	Interventions at the youth and community level. Youth Prevention sessions Parent and family skills-building Youth community engagement including PhotoVoice, web and social media prevention strategies Case management services for most at-risk families. Surveys were distributed to access intervention inputs and outcomes	Community Based Participatory Research (CBPR); Positive Youth Development (PYD)	Evaluate intervention program as well as youth and community outcomes: Understand and address a health disparity issue for Central American immigrant youth through participatory intervention model	ATOD	Analyses showed that there was an increase in knowledge and prevention skills among youth following interventions Community engagement showed positive effects on drug use risk, violence attitudes, and sexual risk behavior	This study showed a model to address health disparities among Central American immigrant youth. Interventions at the personal and community level were effective	Multi-level community collaborative approach that is tailored to the youth and target community Promote individual assets and facilitate linkages in the community (through adult allies) that build capacity and access to community resources Leveraging social marketing and digital media strategies for prevention programming	Primary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Ehlers, CL, Geisler, JR, Luna, JA, Gilder, DA, Calac, D, Lee, JP, & Moore, RS	2020	Community awareness of outreach efforts to reduce underage drinking on California Indian reservations	American Indian & Alaska Native Mental Health Research: The Journal of the National Center	Native American / American Indian youth (<21 years old) and adults (>21 years old) in South California, United States (US)	Youth (n=74) Adults (n=120)	Youth randomized to receive culturally tailored brief motivational interviewing or psychoeducation Community outreach for prevention and reduction of alcohol and drugs Tribal youth engaged in creation of billboards with messages to reduce drinking Adult and youth surveys were conducted at the end of the project	Participatory Action Research; Community-based comprehensive and collaborative strategy; Empowerment constructs as outcomes	Raise awareness through participatory processes and build capacity: Raising the awareness of alcohol problems and mobilizing extended community support	Alcohol	Adults score higher on seeing the billboard that was created in the project, liking the activities conducted, and that the activities had a positive impact Adults had higher intention to change drinking habits versus youth Community outreach sessions and the Reward and Reminder program improved youths drinking behavior.	Multiple types of intervention strategies can increase the odds of adults taking actions to prevent youth drinking and that youth can change drinking behavior	American Indian / Native American youth and adults are involved in designing and implementing substance use prevention and intervention programming provide culturally responsive, relevant, and effective programming	Primary & Secondary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Gosin, MN, Dustman, PA, Drapeau, AE, & Harthun, ML	2003	Participatory Action Research: Creating an effective prevention curriculum for adolescents in the Southwestern US	Health Education Research	Southwestern US, 7th and 8th grade (12—14 years of age) students	Teach Focus Groups (N=13) Teacher implementation (N=52) Mexican/ Mexican–American sites: 9 sites (school enrollment <500 to >800) European/ African American sites: 8 sites (school enrollment <500 to >800) Multicultural sites: 8 sites (school enrollment 500 to >800) Control sites: 10 sites (school enrollment <500 to >800) Youth members: no sample size given	Focus groups evaluated lessons and gained feedback from teachers about drug resistant strategies Youth provided feedback about the curriculum Utilizing the participatory action research framework, they created the project logo and developed a video that represented their ethnicity and culture After the implementation of the program, focus groups were conducted to evaluate the curriculum	Participatory Action Research (PAR) and Empowerment Theory and Constructs	Evaluate intervention program: The project highlights the need for researcher/ community partnerships to develop effective drug prevention programs PAR was used to ensured direct participation of the school community experts as consultants and collaborators PAR can enhance the effectiveness of prevention curricula and drug prevention research	Alcohol, tobacco, and marijuana	Findings showed that the curriculum was effective Students who received the curriculum had lower levels of alcohol and tobacco use Authors reported that engaging youth and teachers in curriculum development improved its effectiveness	PAR is important for the implementation of programs to prevent youth substance use Engaging teachers and students in curriculum development helped ensure that it was representative of specific cultures and communities	PAR methodology enabled community experts to represent their schools and cultures; helped ensure visual representations of culture and validating student thoughts and ideas; due to youth involvement in prevention curriculum design, youth felt it was representative of their communities and values	Primary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Helm, S, Lee, W, Hanakahi, V, Gleason, K, & McCarthy, K	2015	Using photovoice with youth to develop a drug prevention program in a rural Hawaiian community	American Indian & Alaska Native Mental Health Research	Native Hawaiian youth (13–18 years of age) in Hawaii, US	10	Using the SHOWeD technique as youth participated in a photovoice project Used the positive youth paradigm in this project. Project concluded with a community celebration to engage in prevention work as photographs were shared	Participatory Action Research; Positive Youth Development (PYD); Empowerment Theory and Constructs	Evaluate participatory research project: Use theory and concepts from the PYD paradigm and PAR approaches to guide the development of a Native Hawaiian model of drug prevention	AOD	Themes developed with the community that captured Hawaiian perceptions about drug prevention, as well as values, beliefs and practices that youth felt were important in a prevention model	Native Hawaiian drug prevention will be placed-based in culturally significant community locations, experiential, and guided by multi-generational teaching and learning	Native Hawaiian drug prevention emphasizes place-based culturally responsive, community-driven, multigenerational teaching and learning Emphasis placed on indigenous ways of learning and understanding through a multi-generational context	Primary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Lee, JP, Pagano, A, Kirkpatrick, S, Le, N, Ercia, A, & Lipperman-Kreda, S	2019	Using photovoice to develop critical awareness of tobacco environments for marginalized youth in California	Sage Publications: Action Research	Southeast Asian youth (15 to 24 years of age) living in northern California, US	9	Photovoice project using the SHOWeD method. Focused on environmental influences of tobacco use	Youth Participatory Action Research (YPAR); Empowerment concepts (e.g., self-efficacy, collective-efficacy, leadership)	Evaluate participatory research project: Report on experiences using photovoice as part of a tobacco prevention project with multiethnic youth in an under resourced Northern California community	Tobacco	Youth reported that they became more aware of their surroundings as they engaged in PhotoVoice. They appeared to be empowered to act toward change	The use of photovoice and the SHOWeD method increased critical thinking skills and increase equity	PhotoVoice supported consciousness raising experiences and facilitated the development of prevention action plans, school staff workshops and strategic community meetings Include community-based facilitator or adult allies to enlist support and resources to aid group in accomplishing goals	Primary & Secondary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Lee, JP, Lipperman-Kreda, S, Saephan, S, & Kirkpatrick, S	2013	Tobacco environment for southeast Asian youth: Results from a participatory research project	Journal of Ethnicity in Substance Abuse	Southeast Asian youth and adult community members in California, US	Community Survey: 93 Community Members 79.6% Youth under 18 Tobacco Survey: 73 Community members 18% (under 18) 34% (18–34) 45% (Over 25)	An environmental approach involving a community-based prevention program and a participatory approach using Photovoice as well as youth and community surveys	Youth Participatory Action Research (YPAR) and Empowerment Theory and Constructs	Evaluate participatory research project focused on substance use prevention and community outcomes. The tobacco project allowed for the inclusion of community-based research including: (1) a guest speaker series to introduce tobacco as a multi-dimensional issue for individuals and communities; (2) community surveys to assess the broader context of tobacco use and tobacco issues in their community, as well as community assets; (3) a PhotoVoice project to engage the youth in documenting and reflecting on their social and physical environment; and (4) a tobacco outlet survey to engage youth in documenting and reflecting on the presence of tobacco in their community	Tobacco	Tobacco ads were observed in most stores Community showed high access and exposure to tobacco Tobacco surveys reported that 62% of youth have smoked at least one in their lifetimes Photovoice narratives document that tobacco ads and products are targeted towards youth	Findings showed that in the community of Southeast Asian American youth involved in this project, tobacco products are heavily marketed to youth and ethnic minorities	Second-generation southeast Asian refugee youth documented the salience of tobacco products in their social environment. Products such as blunts and mentholated cigarettes drew attention to environmental exposure and targeted marketing campaigns that need to be addressed via tobacco control policies	Primary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Ross, L	2011	Sustaining youth participation in a long-term tobacco control initiative: Consideration of a social justice perspective	Sage Publications: Youth and Society	Ethnically diverse peer leaders (15–18 years of age) in Worcester Massachusetts, US	20	Case study about the HOPE Coalition, using a Community Based Participatory Research (CBPR) approached with a positive youth development and social justice youth development frameworks	CBPR; Positive Youth Development (PYD) and Social Justice Youth Development (SJYD); Empowerment Theory and Constructs	Evaluate participatory research project: In-depth case study of the HOPE Coalitions Teens Tackle Tobacco initiative, a 3-year CBPR project	Tobacco	Developed the Teens Tackle Tobacco project. New policies and ordinances were developed as an outcome of this 3-year project. Youth developed research skills as well as engaged in action projects	PYD and SJYD aids development of critical skills for youth to engage in community change	Youth led tobacco control should explore the potential of explicitly integrating PYD and SJYD frameworks. Involving youth in tobacco control efforts enhances skill and education development in communities. An emphasis on race and power in tobacco control efforts is needed to penetrate the grip of tobacco companies in these communities	Primary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Salerno, E, Valdez, E, Korchmaros, J, Sabo, S, Garcia, DO, Carvajal, S, & Stevens, S	2019	How the US-Mexico border influences adolescent substance use: Youth participatory action research using PhotoVoice	International Journal of Drug Policy	Rural adolescents (14–18 years of age) living on the US-Mexico border	23	Youth participatory action research (YPAR) approach included a photovoice project, narratives and recorded debrief sessions	YPAR and Empowerment Theory and Constructs	Evaluate participatory research project: Findings from a YPAR project using PhotoVoice to identify environmental factors that influence substance use among adolescents living at the US-Mexico border. Exploring the protective elements of border communities, which will inform future prevention and risk reduction efforts	ATOD*	Identified novel risk factors for adolescent substance use on the border including the normalization of drug trafficking, normalization of substance use, and cross-border access to substances Novel protective factors included living in a close-knit binational community and having strong binational family and social support systems. The findings also illustrate a nexus of factors wherein risk and protective elements overlap	The examination of influential border-bound factors provides a more complete understanding of the experiences of youth living on the US-Mexico border, and informs the field of the importance of considering the border experience for future prevention and risk reduction efforts with border adolescents	Provide youth with ample opportunities to develop a positive neighborhood sense of community through community organizations, mentors, and community-level activities such as community coalitions or participatory action research projects like PhotoVoice	Primary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Tanjasiri, S, Lew, R, Kuratani, D, Wong, M, & Fu, L	2011	Using PhotoVoice to assess and promote environmental approaches to tobacco control in AAPI communities	Health Promotion Practice	Youth ages 14–18 from Asian American and Pacific Islander communities in California and Washington state, US	32	Community Based Participatory Research (CBPR) approach using PhotoVoice Youth were recruited from four local community-based agencies Youth were part of a 2-day training to learn about PhotoVoice	CBPR; Empowerment Theory and Constructs	Evaluate participatory research project and building youth capacity; Describe the use of PhotoVoice to empower AAPI youth to identify and understand environmental characteristics associated with tobacco use in four AAPI communities in California and Washington, US	Tobacco	Youth identified environmental influences on tobacco use. Further, youth identified themes regarding economically depressed communities	PhotoVoice projects can capture the influence of the environment on youth behavior. Further, PhotoVoice projects are more successful when they are tied to public and policy outcomes	Tobacco control efforts should equip youth with skills to identify and address environmental influences to youth tobacco use Replicating PhotoVoice efforts in other diverse environmental settings, with the long-term goal of identifying and mobilizing against environmental-level influences relevant to youth and community tobacco control	Primary

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Wilson, N, Minkler, M, Dasho, S, Wallerstein, N, & Martin, AC	2008	Getting to social action: The youth empowerment strategies (YES!) project	Health Promotion Practice	Underserved minority elementary school students in 5th and 6th grades (10—12 years of age) in West Contra Costa County, California, US	122	The Youth Empowerment Strategies (YES!) curriculum was developed and it had 4 domains: team building, photography, empowerment education-based activities, and a social action project	Community Based Participatory Research (CBPR); Empowerment Theory and Constructs	Raising awareness of the YES! program and describing youth or community capacity building: Describe the application of empowerment education as a strategy for early adolescents to generate health-related social action	ATOD	This article focused on the social action project from this curriculum. Four social action projects were developed: awareness campaigns about school conditions, school behavior campaigns, clean-up projects, and projects to increase school spirit	The YES! project is grounded in empowerment and participatory research encouraging critical thinking development	The key to empowerment interventions is that group dialogue and reflection leads to action Limit the boundaries of the community to the school which allows for a familiar arena for youth engagement and action as well as access to allies (school staff and other youth) Facilitate ways youth can practice their social analysis techniques prior to outward social action	Secondary

Empowerment theory outcome-based studies

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Christens, BD & Peterson, NA	2012	The role of empowerment in youth development: A study of sociopolitical control as mediator of ecological systems influence on developmental outcomes	Journal of Youth and Adolescence	>90% African American / Black, Latinx/ Hispanic urban youth in grades 9 to 12	629	Structural Equation Modeling to examine mediating effect of sociopolitical control and empowerment between ecological supports and risk factors including alcohol consumption and drug use	Empowerment Theory and Constructs	Examine role of youth empowerment on substance use outcomes	AOD	This study found support for the role of psychological empowerment as a mediator between ecological supports and developmental outcomes	Findings include significant associations between supportive ecologies (family cohesion and social support) and sociopolitical control, an indicator of youth empowerment Significant paths between these variables and developmental outcomes include self-esteem, perceived school importance, psychological symptoms and risk behaviors	Engage youth in civic and community issues and provide greater involvement of youth In communities and organizations that seek to improve social and political systems	Not a direct prevention study

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project /study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Lardier, DT, Opara, I, Reid, RJ, Garcia-Reid, P	2020	The role of empowerment-based protective factors on substance use among youth of color	Child and Adolescent Social Work Journal	Youth of color (14 to 18 years of age) from a northeastern urban community	383	Structural Equation Modeling analysis. Measures included: Cognitive Psychological Empowerment, Intrapersonal Psychological Empowerment, Community Civic Participation, Ethnic Identity, and a 30-day substance use scale	Empowerment Theory and Constructs	Examine role of youth empowerment on substance use outcomes	AOD	There was a positive direct association between both intrapersonal psychological empowerment and cognitive psychological empowerment and ethnic identity. Intrapersonal psychological empowerment, ethnic identity and community civic engagement negative associations with 30-day substance use	Intrapersonal and cognitive empowerment through ethnic identity and community civic engagement are both indirectly associated with lower 30-day substance use. Youth engagement in their communities can increase prevention in youth substance use	Engage youth in action and emancipatory ways within community prevention programming. Youth-based community programs should task themselves with providing youth opportunities for social change and activism, particularly around health and wellness. Connecting youth with ethnically-racially like mentors may augment their own sense of cultural identity	Not a direct prevention study

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Opara, I, Lardier, DT, Fernandez, Y, Garcia-Reid, P, & Reid, R.J	2020	Intrapersonal psychological empowerment profiles on ethnic identity, social support, and lifetime drug use among Hispanic adolescent girls	Journal of Ethnicity in Substance Abuse	Hispanic adolescent girls (13 to 18 years of age) from a northeastern urban school district	490	Confirmatory factor analysis used to assess the validity of the Sociopolitical Control Scale among youth (SPCS-Y); latent class analyses were also conducted. Measures included: SPCS-Y, social support, ethnic identity, and a lifetime alcohol and drug use scale	Empowerment Theory and Constructs	Examine role of youth empowerment on substance use outcomes	AOD	Confirmatory factor analysis provided support for abbreviated 8-item higher order two-factor SPCS-Y model. In the latent class analysis, 5 cluster groups emerged. Higher levels of intrapersonal psychological empowerment were associated with higher levels of social support and ethnic identity and lower levels of alcohol and substance use	Examining dimensions of empowerment should be context specific. Substance use prevention work should be tied to empowerment as well as values and principles that resonate with youths culture	Fostering leadership and community engagement among Hispanic girls. Emphasize culturally responsive frameworks. Connect Hispanic girls with multi-generational mentors	Not a direct prevention study

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Opara, I, Rodas, EIR, Garcia-Reid, P, & Reid, RJ	2020	Ethnic Identity, empowerment, social support and sexual risk behaviors among black adolescent girls: Examining drug use as a mediator	Child and Adolescent Social Work Journal	Black adolescent girls (14 to 17 years of age) who identified from a northeastern urban school district	390	Drug use was tested as a mediator and there was also an alternative model where social support was tested as a mediator. Path analysis was conducted Measures included: Social support, psychological empowerment, multigroup ethnic identity, sexual risk behavior, and a scale for 30-day drug use	Empowerment Theory and Constructs	Examine role of youth empowerment on substance use outcomes	Alcohol Tobacco, Marijuana	Social support, psychological empowerment and ethnic identity had significant negative direct relationships with sexual risk behavior through 30-day drug use as a mediator Social support had a direct negative relationship with sexual risk behavior	Reducing drug use among Black adolescent girls can effectively reduce sexual risk behavior and increase social support, psychological empowerment and ethnic identity	Emphasis on the strengths of Black girls Align prevention and intervention programming with cultural values of Black girls Draw on lived-experiences of Black girls to inform prevention and intervention programming	Not a direct prevention study

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Lardier, DT	2019	Substance use among urban youth of color: Exploring the role of community-based predictors, ethnic identity, and intrapersonal psychological empowerment	Cultural Diversity and Ethnic Minority Psychology	African-American/ Black and Hispanic/ Latinx urban adolescents (16 to 18 years of age)	1480	Ethnic identity and psychological empowerment were tested as a mediator using path analysis. Measures included: Neighborhood sense of community, community participation, ethnic identity, intrapersonal psychological empowerment, and a scale for 30-day substance use	Empowerment Theory and Constructs	Examine role of youth empowerment on substance use outcomes	ATOD	Community participation and neighborhood sense of community had a significant positive direct association on ethnic identity, which had a negative relationship with substance use Community participation and neighborhood sense of community had a significant positive direct association with intrapersonal psychological empowerment which had a negative influence on substance use Community participation had a direct positive effect on psychological empowerment and a direct negative effect on substance use	Community participation and neighborhood sense of community may have an influence in ethnic identity development and psychological empowerment which can in turn decrease substance use among adolescents of color	Tailored, targeted, and culturally responsive substance use prevention programming Engage youth of color and adult key stakeholders in prevention programming activities Emphasis on youth strengths, resiliency, and capacities for improving systems	Not a direct prevention study

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Lardier, DT, Garcia-Reid, P, & Reid, RJ	2017	The interacting effects of psychological empowerment and ethnic identity on indicators of well-being among youth of color	Journal of Community Psychology	African American / Black and Latinx/ Hispanic urban youth in grades 9 to 12 (13 to 18 years of age)	383	Multivariate analysis of variance conducted to examine profile groups of psychological empowerment and ethnic identity, with measures of school importance, community participation, neighborhood sense of community, and perception of substance use risk	Empowerment Theory and Constructs	Examine role of youth empowerment on substance use outcomes	AOD	Statistically significant differences were found between psychological and ethnic identity profile groups for all variables. The group with both high psychological empowerment and ethnic identity had higher scores among all variables	The relationship between psychological empowerment and ethnic identity can have important effects on youth of colors well-being and participatory activity	Tailor empowerment-based preventions and interventions to align with community and participant ethnic-group identity Enhance youth empowerment and connection to their racial-ethnic cultural group Connect youth with adult allies to support prevention activities	Not a direct prevention study

Table 1 (continued)

Authors	Year	Title	Journal	Population	n	Methods	Theoretical orientation	Project objectives	Substance of focus in project / study	Results	Conclusions	Implications for replication and future research	Primary, Secondary, or Tertiary Prevention
Peterson, NA, Hamme-Peterson, C, Agre, L, Christens, BD, & Mortan, CM	2011	Measuring youth empowerment: Validation of a Sociopolitical Control Scale for youth in an urban community context	Journal of Community Psychology	> 90% African American / Black, Latinx/ Hispanic urban youth in grades 9 to 12	865	Confirmatory factor analysis (CFA) was used examine the factor structure of Sociopolitical Control Scale for Youth Multivariate analysis of covariance (MANCOVA) was performed to examine whether profile groups, which were created on the basis of scores on the two SPCS-Y subscales (mean split), differed on measures of community and school participation, neighborhood attachment, and perceived school importance, as well as alcohol and drug use	Empowerment Theory and Constructs	Examine role of youth empowerment on substance use outcomes	AOD	Results indicated that the hypothesized 2-factor model provided an adequate model-to-data fit SPC profile groups differed significantly on measures of community and school participation, neighborhood attachment, perceived school importance, and drug use	The main implication of our findings is that SPC should be conceptualized and measured as a bidimensional construct among youth populations Results also suggested important differences between SPC profile groups on measures of community and school participation, neighborhood attachment, and perceived school importance, as well as alcohol and drug use	Youth empowerment shows promise as an indicator of behavior and developmental outcomes Encourage youth to engage in participatory methods to facilitate power and community-level change, alongside adult-allies	Not a direct prevention study

ATOD Alcohol, Tobacco and Other Drug Use, *AOD* Alcohol and Other Drug Use

Table 2 Scoping review themes from manuscripts that provide recommendations for prevention research

Themes	References
Cultural responsiveness within youth engaged empowerment-based participatory research	Edberg et al. (2022); Gosin et al. (2003); Helm et al. (2015)
Multi-generational approaches within youth engaged empowerment-based participatory research	Edberg et al. (2022); Ehlers et al. (2020); Gosin et al. (2003); Lee et al. (2017); Ross (2011); Salerno et al. (2019)
Use of Photovoice within youth engaged empowerment-based partici-patory research	Helm et al. (2015); Lee et al. (2013); Lee et al. (2017); Tanjasiri et al. (2011)
Consciousness raising activities within youth engaged empowerment-based participatory research	Lardier et al. (2020); Lee et al. (2013); Lee et al. (2017); Ross (2011); Salerno et al. (2019); Tanjasiri et al. (2011); Wilson et al. (2008)
Empowerment theory driven, substance use outcomes with youth engagement implications that emphasize the intersection identities of youth and role of adult allies	Christens & Peterson (2012); Lardier (2019);Lardier et al. (2017);Opara et al. (2020a); Opara et al. (2020b); Peterson et al. (2011)

independently. Then the full team conducted reviews of some extractions to ensure accuracy and met multiple times as a team to review data extracted and reconcile any conflicts [52]. To extract all data elements, the full articles were considered, though, most of the data were extracted from methods and discussion/conclusions. Extraction was an iterative process, in which the team added additional details during team meetings as needed and one reviewer (DL) made final edits to the extracted data to ensure concise and consistent language. The final extraction table was formatted into the resulting Table 1. With the extracted data in the extraction table, the team conducted basic qualitative descriptive analysis [53] and synthesized for each data element through descriptions and reported frequencies where relevant.

Results

We identified 271 article abstracts and screened them for retrieval (Fig. 1). A total of 269 original titles and abstracts were retained for screening. Of these, 189 were excluded due to topic misclassification. The remaining 80 full-text articles were screened, with 63 excluded, which resulted in the final 15 articles being included in this review. Two additional articles were included following consultation from experts within the field [54, 55]. Projects described in these articles varied regarding participant descriptions, objectives, methods, primary substances of focus, and youth and community outcomes (see Table 1). Articles were divided into two categories: (1) *E-YPAR studies* (*n* = 10) and (2) *Empowerment theory outcome-based studies* (*n* = 7).

Participant Descriptions

E-YPAR studies. The population of focus varied among the ten projects that described E-YPAR. All articles described BIPOC youth, including Native American or American Indian, Native Hawaiian [56, 57], Hispanic or Latinx [58–60], Asian and Pacific Islander, and nondescript underserved minority [61–63] and ethnically diverse youth [64]. Youth from these articles occupied multiple historically oppressed backgrounds or those with disproportionate risk across the US, including urban youth, rural and frontier youth [57, 60], tribal youth [56, 57], youth from refugee families [61, 62], youth along the US-Mexico border with mixed immigration status [58, 60], and youth in poverty [63]. Most participants were 10 to 18 years of age. One article engaged elementary school students [65], and four engaged youth and young adults older than 18 [56, 58, 61, 62].

Sample sizes varied across articles. Five articles had sample sizes of 30 or less [57, 60, 61, 63, 64]. Five studies had sample sizes of 70 or more participants [56, 58, 59, 62, 65]. Three projects presented sample sizes with either multiple cohorts, multiple levels of data collection, or participatory approaches with both youth and adults but failed to describe youth members adequately [58, 59, 62].

Empowerment theory outcome-based studies. Among the seven projects that described empowerment theory outcome-based studies, all engaged BIPOC youth from urban communities [15, 27, 33, 47, 54, 55, 66]. Studies were all located in the northeastern US [15, 27, 33, 47, 54, 55, 66]. Youth from these articles occupied several historically oppressed backgrounds, including youth living in poverty, youth living within communities with high levels of community violence, and youth with increased access to substances due to high alcohol outlet density in their communities [15, 27, 33, 47, 54, 55, 66]. Two articles engaged only BIPOC [33, 47]. Ages ranged from 11 to 18 across studies [15, 27, 33, 47, 54, 55, 66]. Sample sizes varied significantly, with the smallest sample size being 383 BIPOC youth [66] and the largest sample size being 1480 BIPOC youth [15].

Objectives

E-YPAR studies. Articles reported varying objectives to achieve goals related to youth ATOD prevention. Six articles focused on evaluating participatory action research projects [57, 60–64]. Two articles described raising awareness and building youth and community capacity [63, 65]. Two articles described the evaluation of intervention programs [61, 64], one examining youth and community outcomes [62].

Empowerment theory outcome-based studies. The primary objectives reported across these seven articles focused on the association between youth empowerment constructs (e.g., psychological empowerment) and ATOD use outcomes to inform primary prevention strategies [15, 27, 33, 47, 54, 55, 66].

Methods and Participatory Approaches

E-YPAR studies. Photovoice (i.e., Photovoice is a visual research methodology with the intention to foster social change. For more information see Wang and Burris [67, 68]) and traditional qualitative methods (e.g., individual interviews, focus groups) were commonly used across six studies [57, 58, 60–63]. Two articles reported traditional qualitative methods, including individual or focus group interviews and community observations [59, 65]. Four used a combination of quantitative surveys geared toward youth, adults, and community members [56–58, 62].

Empowerment theory outcome-based studies. These articles did not explicitly engage in participatory approaches but did examine associations between youth and ATOD outcomes to inform primary prevention strategies [15, 27, 33, 47, 54, 55, 66]. Implications for participatory prevention activities were discussed in these articles. See Table 1.

Theoretical Orientation

E-YPAR studies. Most articles described theoretical orientations (e.g., Empowerment Theory, Positive Youth Development theory) alongside participatory action research approaches. Of note, we are not proposing that participatory action research, YPAR or community-based participatory research are theoretical concepts. Instead, we are noting theories (e.g., Empowerment Theory, Positive Youth Development theory) that guided understanding alongside participatory action research methodological approaches. All studies used the term empowerment but varied in definition and theoretical conceptualization. Seven articles specified Empowerment Theory and Constructs as outcomes (e.g., self-efficacy) alongside participatory approaches, including participatory action research [59], YPAR [60–62], or community-based participatory research [63–65]. Three articles described concepts from Empowerment Theory but

instead used Positive Youth Development theory as a guiding concept alongside participatory action research [57, 64] and two community-based participatory research or YPAR studies [58].

Empowerment theory outcome-based studies All studies drew on Empowerment Theory and Constructs as their theoretical orientation [15, 27, 33, 47, 54, 55, 66]. Christens and Peterson [54] also drew on a Risk and Protective Framework [69] to conceptualize their modeling strategy and outcomes. These articles examined several dimensions of Empowerment Theory, including the intrapersonal domain of psychological empowerment (i.e., self-efficacy in policy change and leadership) [15, 33, 54, 55, 70] and the cognitive domain of psychological empowerment (i.e., power through relationships, nature of problem/political functioning, and shaping ideologies) [27].

Substances of Focus

We identified four articles that listed ATOD as the substances of focus [15, 58, 60, 65]. Six articles focused on alcohol and other drug use (AOD) [27, 54, 55, 57, 66], and two articles focused on alcohol, tobacco, and cannabis [47, 59]. Four articles emphasized tobacco use [61–64], and one article focused on alcohol use, explicitly [56].

Project and Study Outcomes

E-YPAR studies. Articles reported numerous positive effects of youth involvement in E-YPAR on ATOD indicators and prevention outcomes. Participating youth displayed increased knowledge and greater risk perception regarding tobacco [61–64], alcohol, and other drug use [57, 59, 60, 65]. Six studies indicated increased awareness among youth in their communities and a desire to engage in social action and change to facilitate prevention strategies [56, 58–62], particularly marketing campaigns (e.g., social media, project specific websites, billboards) [58, 62]. Other outcomes included the identification of protective factors [60], changes in beliefs, perceptions, and values [62], and the development of research skills to facilitate sustainability and continued social change toward the development of prevention strategies [64].

These articles, found positive results with youth participating in sociopolitical and environmental prevention activities through, in most instances, collective action. Further, several studies have identified adult allies or mentors in facilitating and supporting youth action in prevention strategies [58, 60, 61] and increasing their critical awareness and knowledge development [57, 61, 64]. All studies noted youths input regarding alcohol and ATOD improved prevention efforts.

Empowerment theory outcome-based studies. Articles reported several variables implicated in youth empowerment and empowerment theory (e.g., community participation, psychological sense of community, ethnic identity) as being associated with either lower levels of ATOD or risk perception. All articles specifically described the association between intrapersonal psychological empowerment and ATOD outcomes [15, 27, 33, 47, 54, 55, 66]. Two articles described the association between intrapersonal psychological empowerment, ATOD use, and sexual risk behavior outcomes [33, 47]. Across all studies, implications for ATOD prevention among BIPOC youth were provided. See Table 1.

Prevention Recommendations

EYPAR studies Prevention recommendations were relatively consistent across all studies, emphasizing youth engagement and being multi-generational (i.e., adult allies and youth working collaboratively). All articles focused on consciousness-raising activities and referred to Paulo Freires work [71] in this conceptualization.[1] Six articles focused on these efforts through PhotoVoice, with five taking a multi-level community collaborative approach [57, 60–63], and one considered the use of social media in prevention [58]. Two articles focused on prevention work being culturally responsive and specific to Hispanic or Latinx communities and youth [58] and Native Hawaiian communities and youth [57]. Themes related to recommendations are presented in Table 2, highlighting goals and activities focused on ATOD prevention.

Empowerment theory outcome-based studies Similarly, prevention recommendations from these articles were relatively consistent across all studies, emphasizing youth engagement and multi-generational collaborations. However, two studies noted a specific emphasis on BIPOC girls [33, 47], and two other studies highlighted ways to support youth connection to racial-ethnic communities to facilitate alignment of prevention activities and positive youth end outcomes [15, 66]. Themes related to recommendations are presented in Table 2.

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[1] Freires work focused on critical pedagogy and culturally relevant education. Freire emphasized that as oppressed peoples thinking and understanding of their social conditions developed, their views of themselves in relation to society developed [71–73]. Meaning, their understanding of social structures became complex and nuanced, and they were less constrained by their social conditions. Freire conceptualized critical consciousness as the idea wherein those in oppressed conditions critically examine their world and the dehumanizing conditions that lead marginalized and oppressed persons to believe their voices and perspectives are irrelevant [71–73].

Alcohol-specific prevention recommendations

EYPAR studies Alcohol specific prevention recommendations were minimal. Two articles discussed alcohol and alcohol use prevention [56, 59]. Ehlers et al. [56] noted that billboards and other community outreach activities, such as participatory processes (e.g., information campaigns), raised community awareness regarding youth alcohol use, as well as built capacity to sustain these participatory efforts. They further added that involving American Indian / Native American youth and adults in each step of the designing and implementation of alcohol prevention and intervention is important to ensure that the work is culturally responsive, relevant, and effective to the target population [56].

In a sperate study, Gosin et al. [59] drew attention to the importance of researcher-community partnerships in developing effective drug and alcohol prevention programs and how participatory action research accomplished the goal of ensuring direct participation of school community experts as consultants and collaborators. Therefore, the primary recommendation concerns the incorporation of participatory action research in the implementation of programs to prevent youth drug and alcohol use. Moreover, engaging teachers and students in multiple stages of development is important to identify curriculum that is representative of specific cultures and community.

Empowerment theory outcome-based studies No studies specifically examined alcohol use as a primary outcome for prevention-intervention research.

Discussion

This scoping review aimed to describe youth engagement and empowerment in ATOD prevention activities. These studies emphasized alcohol prevention, and identified outcome-based studies that examined relationships among youth empowerment, community engagement, and ATOD outcomes. This review summarized the extant published evidence regarding E-YPAR prevention initiatives and outcome studies that examined empowerment within BIPOC youth communities. We synthesized the methodologies and implications for E-YPAR and ATOD prevention.

Among the E-YPAR studies, most articles focused on either ATOD, alcohol and other drugs (AOD), or tobacco use specifically, with one study focused specifically on alcohol use. All studies engaged BIPOC youth with diverse intersecting geographic locations and identities. Across this research, empowerment-based participatory approaches

through participatory action research, YPAR, or community-based participatory research were valid methods for engaging BIPOC youth in prevention activities. While numerous objectives were reported across studies to meet the goal of promoting youth ATOD prevention and reducing youth ATOD use, most focused on developing community assessments [56, 57, 59, 62], increasing community and youth capacity [56, 57, 59], bridging youth-adult partnerships [15, 56, 65], and developing culturally-responsive prevention approaches [56–58, 65].

Results support engaging BIPOC youth as active leaders of community ATOD prevention efforts. With some variation across projects in the methods by which youth engaged in participatory programming (e.g., PhotoVoice, environmental scans, social media, and billboard creation), youth were identified as actively involved in projects that included, but were not limited to, identifying community problems and raising awareness about those problems [57–65]. The single alcohol-only-focused study noted cultural responsiveness and multi-generational allies as essential components to raising awareness and mobilizing community support [56]. Gosin et al. [59]while examining multiple substances, specifically noted the role of community partnerships in developing effective drug and alcohol prevention programs and how participatory action research facilitated engagement of school community experts as consultants and collaborators. This framing of youth — particularly BIPOC youth alongside adult and multigenerational-allies — as providing expertise and leadership runs counter to traditional notions of youth engagement and prevention [22, 41, 74–76]. Frequently, youth are positioned as sources of stress and worry, as well as a group of people who need to be "changed" and lack agency — i.e., governed by hormones and peers [15, 22, 76]. Therefore, BIPOC youth sharing power with adult allies is key to ensuring that youth voices are raised-up in societal spaces that they are typically barred from accessing (e.g., political circles, community forums, and coalitions) [22, 77–79].

Multiple objectives were described across studies to meet the goal of empowerment-based ATOD prevention by and for youth. Most studies described E-YPAR as the primary prevention activity [56, 58–62, 64, 65]. For instance, Edberg et al. detailed that the *Adelante Project* not only empowered youth to engage in PhotoVoice, as well as web-based and social media prevention strategies, but also impacted adult and youth alcohol use [58]. Ehlers et al. found that youth were engaged in raising awareness of alcohol use in their tribal communities through billboards and other participatory processes [56]. This project further facilitated knowledge development and social awareness among adults and youth in the community [56]. Though it is clear that participatory methods are beneficial to developing and disseminating youth-driven ATOD prevention programming,

these studies also highlight the notion that this work has the potential to impact the youth themselves and enhance their own knowledge, skills, and motivation [57–65], as well as increase their sense of purpose and perceived support from adults [15, 33, 56, 58, 59, 61, 62]. It also has the potential to align BIPOC youth with adult-allies, which is well-described in the extant literature as a source of facilitating youth engagement, youth-driven prevention strategies, and youth action for policy change [17, 41, 80, 81].

E-YPAR studies

Across E-YPAR studies, youth experienced several positive outcomes as a result of engagement in these prevention activities. For instance, all studies indicated that youth learned about environmental approaches to ATOD prevention and could dialogue about preventive measures [56–59, 61–65]. Other studies ($n = 8$) added that youth developed a critical awareness of social, political, economic and policy level conditions that perpetuate inequality, particularly as it relates to ATOD use and prevention in BIPOC communities [56–58, 60–63, 65]. Such conditions that were described in studies included, but were not limited to, the perpetuation of tobacco selling establishments and access [61, 62]; racial composition of the community and the type and level of access [64]; and public policies that disinvested from communities of color [60, 63].

Among studies specific to alcohol use, changes were identified in youth drinking behavior [56, 59] and youth perception of alcohol use risk [57]. While there were some community outcomes described (e.g., changes in youth smoking; and changes in adult perceptions regarding alcohol use) [57, 62], most studies did not discuss large-scale impacts, nor macro-level policy or other changes in the sociopolitical or physical environment. Several studies made important attempts at sociopolitical change (but failed) in actually getting policy implemented. This limitation in terms of large-scale impact points to the need for studies describing the participatory process over time at both the individual level among youth, and at the community level. Moreover, it is vital that participatory research studies continue to document environmental change strategies (e.g., policies focused on advertising restrictions, changing hours of operations for alcohol establishments, compliance checks). Extant participatory research studies have recognized that not only have youth and community members felt empowered through these efforts, but these environmental change strategies can impact community norms, regulations, as well as access and availability of substances [25, 50, 82]. Well-conceived participatory environmental change approaches alongside implemented policies at the local, state and national levels can effectively reduce community level ATOD use and

associated outcomes. These E-YPAR studies offer lessons that intersect with findings generated within the identified *Empowerment theory outcome-based studies.*

Empowerment Theory Outcome-based Studies

Empowerment theory outcome-based studies displayed the role of youth empowerment in reducing ATOD and changing risk perceptions [15, 27, 33, 47, 54, 55, 66]. Authors also noted intersecting concepts within E-YPAR, such as engaging adult allies and providing culturally responsive prevention programming [15, 27, 33, 47, 54, 55, 66]. There was an emphasis on connecting youth with ethnically-racially diverse mentors, which may augment their own sense of cultural identity. Prior research has noted the benefits of ethnically-racially diverse mentors in facilitating not only cultural identity but also bridging BIIPOC youths perspectives on health and wellness, as well as prevention knowledge with a more systems focused-approach to conceptualizing social change as it relates to ATOD prevention [38, 83–88]. Opara et al. specifically emphasized the need for tailored, targeted and culturally responsive ATOD prevention programming; more precisely, they added that prevention efforts need to consider intersecting identities, such as gender-specific prevention (i.e., working with BIPOC girls) [33, 47]. Importantly, these findings buttress outcomes generated among identified E-YPAR studies in that these research projects indicate the critical importance of empowering youth at both the individual and organizational-levels through, for example, ethnically-racially diverse mentors, as well as ensure ATOD prevention initiatives are responsive to socio-cultural and gender-based identities.

Study Strengths and Limitations

This review has numerous strengths. Importantly, we used PRISMA guidelines to demonstrate the quality of the review, allow readers to assess strengths and weaknesses, promote replicability, and structure the format of this review. We believe this review adds valuable insight to the expanding literature on youth empowerment, broadly, and more specifically, youth empowerment ATOD prevention through participatory designs. The review is not without limitations.

First, the exclusion of articles from non-peer-reviewed sources, book chapters, and masters and doctoral theses may have eliminated some important and influential examples of E-YPAR and community-based participatory research ATOD prevention and youth outcome studies. Second, while we included both English and Spanish articles in our search parameters, we did not identify articles in Spanish

that aligned with study inclusion criteria; articles written in Spanish and conducted in Spanish-speaking countries likely exist but fall outside the scope of the US academic databases. Consequently, we may have missed important contributions from Spanish-speaking countries and countries with youth who speak languages other than English and Spanish. Third, most of the studies focused on empowerment-based outcomes were conducted on the East Coast of the US, which limits access to diverse populations and communities both within the US and nationally. Fourth, publication bias remains an ongoing threat in academic literature as studies with limited or negative findings are likely unpublished, resulting in a bias toward effective E-YPAR and community-based participatory research ATOD prevention and youth-focused empowerment ATOD outcome studies. In addition, there are likely numerous studies being conducted across the US and US territories that are, or have been, funded by federal agencies such as SAMHSA and philanthropic organizations such as the Kellogg Foundation that have not been published. This may be due to potential capacity issues such as limited or no experience publishing research in academic journals that favor academic writing (often at a PhD level). Federal and philanthropic agencies should consider ways in which to build capacity in this area to ensure dissemination of findings to broader audiences; this limitation may also speak to the importance of pairing with academic institutions to facilitate evaluation and dissemination of research findings in ways that are synergistic and respectful of diverse communities. Fifth, we utilized a comprehensive list of search terms, but these terms may have limited the scope of identified articles. Sixth, many studies that might have fit our criteria fell off due to being part of larger projects that might have been disseminated in forms not included here (e.g., policy briefs, white papers). A single article may only capture one part or aspect of the larger project and not fit our search criteria parameters. Therefore, E-YPAR and community-based participatory research ATOD prevention articles retained in this review cannot be identified as a total representation. However, we feel more confident regarding those studies that are youth-focused empowerment SU outcome studies.

Implications for Substance use Research and Practice

Youth engagement in ATOD prevention initiatives is critical to ensuring effectiveness, relevance, and ultimately improved health outcomes [89]. This review provides examples of youth-engaged processes for specific BIPOC communities, which could guide prevention organizations and systems looking to engage youth authentically in their prevention efforts. With many variations of YPAR approaches and many

studies with limited generalizability, future research might consider longitudinal examination of the overarching guidelines of the different models, how fidelity is measured [90], and effectiveness to determine generalizable outcomes. Furthermore, none of the projects in this review changed policy, which impacts the success of sociopolitical and environmental prevention strategies. It is paramount to publish studies that describe the implementation of participatory approaches to ATOD prevention, as well as policy change. Such research may provide a roadmap for future ATOD prevention projects.

With regard to youth engagement in the research process, specific to E-YPAR studies, programs need to emphasize more intentional power sharing and focus on equitable decision-making. Empowering youth at the individual or psychological level is important to encouraging self-efficacy and motivation; collectively empowering youth at the organizational level will facilitate larger scale prevention efforts and allow for sustainability as this sort of work becomes imbedded within organization culture. This means that adults must acquiesce or give-up power to empower youth voice [76, 91, 92]. Researchers need to expand these efforts and roles for youth in prevention programming, as well as emphasize power sharing to promote youth voice to enhance ATOD prevention programming and outcomes.

Another area of expansion concerns BIPOC youth working alongside adult-allies and focusing on cultural capital of communities to facilitate empowerment. Future studies are needed to engage BIPOC youth alongside adult-allies collaboratively from within their communities in ATOD prevention research. Doing so will provide mentoring but also facilitate youth empowerment to engage actively in social change. Furthermore, given the complex ecological environments of BIPOC youth and their communities, ATOD prevention project directors and investigators are urged to draw on, as Yosso [93] describes, youth and community "cultural capital" or the funds of knowledge that are available within cultural groups and often dismissed as less-than when compared to the hegemony of larger society. Such work and approaches, particularly alongside adult-allies, will help promote culturally-adaptive and focused ATOD prevention programs within BIPOC communities [94, 95]. Therefore, to make progress toward youth health equity, future research needs to consider the cultural adaptations required to implement YPAR prevention programs that are responsive to specific BIPOC youth communities [94].

With alcohol accessed through numerous sources including family and households [5], as well as community access points such as alcohol outlets (e.g., bars, liquor stores, gas stations etc.) [12–14, 96, 97], future studies need to document multi-level E-YPAR projects emphasizing individual-level, organizational and environmental prevention strategies related to alcohol use. In addition, with the increased utilization of social media platforms like TikTok that have targeted

marketing campaigns, research is continuing to document the insidious relationship between marketing and advertising exposure on these platforms and adolescent use [98, 99]. Therefore, it may be critical that E-YPAR projects, similar to the *Adelante Project,* identify ways to transcend traditional on-the-ground prevention programming and make improved efforts to put forward innovative prevention initiatives on social media platforms. Local, state, federal, and philanthropic grantees are encouraged to expand available monies to adequately fund and support E-YPAR ATOD prevention initiatives in BIPOC communities. Federal grant programs are also encouraged to move away from "forced-fit" evidence-based programs to ensure culturally responsive models are considered for competitive funding. As this review displays, while E-YPAR principles have shown promise as part of a broader environmental ATOD prevention strategy, researchers and program planners often overlook these YPAR initiatives for not being rigorously field-tested or evaluated.

Conclusion

E-YPAR provides youth with opportunities to engage in an alternative space within ATOD prevention. While not perfect, these spaces strive for greater social justice and work toward propelling youth forward to inform ATOD prevention research, policy change, and intervention science. Much of ATOD prevention is hierarchically structured (e.g., funding is provided to programs that implement evidence-based programs for youth). This hierarchy has been inadequately questioned or adjusted to consider the voices and perspectives of BIPOC youth.

Consequently, ATOD prevention has fallen short of the impact that is possible. It is, therefore, reasonable that ATOD prevention efforts for BIPOC youth be continuously interrogated to question who it is serving and if those most impacted are engaged in the process. As this review showed, there are several E-YPAR initiatives in ATOD prevention that have actively engaged BIPOC youth and their communities. Still, these initiatives remain few in the scientific literature without discussing long-term impacts. Nonetheless, this review provides some direction for future research. More holistic, egalitarian, youth-driven approaches must be developed to ensure effective environmental ATOD prevention strategies are implemented for and by BIPOC youth.

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