

Psychoeducational intervention for sexual risk behavior and promiscuity in a college student population

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Abstract

This bibliometric study explored psychoeducational interventions targeting sexual risk behaviors among college students from 1990 to 2024. A total of 1,847 publications were analyzed from Web of Science, Scopus, PubMed, PsycINFO, and ERIC. Temporal mapping revealed three developmental stages: emergence (1990–2005), rapid expansion (2006–2015), and consolidation (2016–2024), with an average annual growth rate of 8.4%. Most studies originated from North America, particularly the United States (68.3%). The Information-Motivation-Behavioral Skills Model was the most frequently applied framework (16.9%), followed by the Theory of Planned Behavior (15.6%). Group-based psychoeducational workshops demonstrated the greatest impact (Cohen's $d = 0.67$) and strong cost-effectiveness, while digital interventions expanded outreach but struggled with sustained engagement. The interventions were most effective in reducing sexual coercion (40.7%) and improving STI status discussions (40.8%). Over time, research evolved from disease prevention to holistic wellness promotion. Nevertheless, regional disparities and limited cultural adaptation remain key challenges for global implementation.

Keywords: Psychoeducational Intervention, Sexual Risk Behavior, College Students, Health Promotion.

Abstrak

Analisis bibliometrik ini mengkaji intervensi psikoedukasional untuk perilaku berisiko seksual di kalangan mahasiswa dari tahun 1990-2024. Kami menganalisis 1.847 publikasi dari basis data Web of Science, Scopus, PubMed, PsycINFO, dan ERIC. Analisis temporal mengungkapkan tiga fase: kemunculan (1990-2005), ekspansi cepat (2006-2015), dan konsolidasi (2016-2024), dengan tingkat pertumbuhan tahunan sebesar 8,4%. Penelitian terkonsentrasi di Amerika Utara (68,3% dari AS). Model Keterampilan Informasi-Motivasi-Perilaku paling banyak digunakan (16,9%), diikuti oleh Teori Perilaku Terencana (15,6%). Lokakarya berbasis kelompok menunjukkan efektivitas optimal (Cohen's $d = 0,67$) dengan efektivitas biaya yang tinggi. Intervensi digital menjangkau populasi yang besar tetapi menghadapi tantangan keterlibatan. Intervensi paling efektif untuk perilaku pemaksaan seksual (penurunan 40,7%) dan diskusi status IMS (penurunan 40,8%). Evolusi dari pendekatan yang berfokus pada penyakit menjadi pendekatan kesehatan terpadu mencerminkan pergeseran paradigma promosi kesehatan holistik. Meskipun telah ada kemajuan, disparitas geografis dan kebutuhan adaptasi budaya masih perlu diperhatikan.

Kata kunci: Intervensi Psikoedukasional, Perilaku Risiko Seksual, Mahasiswa, Promosi Kesehatan.

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1. Introduction

This Given its increasing prevalence and multifaceted effects on people's psychosocial development, the topic of sexual risk behavior and promiscuity among college students has become a key concern within the fields of mental health psychology and public health (Ajayi et al., 2019; Glicksohn et al., 2018). While promiscuity refers to a pattern of sexual behavior involving multiple partners that is frequently characterized by a lack of emotional commitment and the absence of safe sex practices, sexual risk behavior is operationally defined as sexual activities that increase the likelihood of negative consequences such as STIs, unintended pregnancy, psychological trauma, and impaired interpersonal functioning (Layland et al., 2018; Salceanu et al., 2024). According to epidemiological data, 65% of college students between the ages of 18 and 24 report having sex within the previous 12 months, 40% report using condoms inconsistently, and 23% have sex with more than three partners per year, making them extremely vulnerable to a number of risks to their physical and mental health (Gupta et al., 2024; Szucs, 2020). According to developmental psychology viewpoints, college students' emerging adulthood (18–25 years old) phase is marked by identity exploration, emotional instability, and novelty seeking, all of which may encourage sexual risk behaviors as a means of individuation and autonomy seeking (Norris et al., 2021).

The complex interplay of psychological (sensation seeking, impulsivity, attachment insecurity), social (peer pressure, social norms, media exposure), cognitive (sexual knowledge deficits, risk perception bias), and situational (substance use, relationship context) factors in the multifactorial etiology of sexual risk behavior calls for comprehensive and evidence-based intervention strategies (DiClemente et al., 2009; Crepaz & Marks, 2002). Through the improvement of sexual knowledge, the development of communication and negotiation skills, the reinforcement of self-efficacy for safe sex practices, and the cognitive restructuring of maladaptive belief systems related to sexuality, psychoeducational intervention has proven to be a highly effective treatment modality for modifying sexual risk behaviors (Karimi et al., 2025).

Psychoeducation about reproductive anatomy and physiology, STIs, and contraceptive methods is one of the main components of psychoeducational intervention (Faridi et al., 2023). Other components include: (1) training in assertive communication, decision-making, and problem-solving skills; (2) cognitive-behavioral techniques to identify and change thought patterns that contribute to risk-taking behavior; (3) relapse prevention strategies to sustain behavioral change over time; and (5) motivational interviewing to increase intrinsic motivation toward behavioral modification. Psychoeducational interventions can decrease sexual risk behaviors by 30–45% and increase consistent condom use by 25–40% among college students, according to recent meta-analyses. Programs that integrate multiple theoretical frameworks, such as the Health Belief Model, Theory of Planned Behavior, and Social Cognitive Theory, have shown larger effect sizes.

Accessibility to target audiences, supportive learning environments, and the possibility of bringing about cultural changes in campus sexual norms are some of the

strategic benefits of implementing these interventions in academic contexts. However, practical issues include social stigma around sexuality, varying readiness to change, student resistance to delicate subjects, and a lack of resources for long-term programming. In order to reduce sexual risk behavior and promiscuity among college student populations, this research intends to develop and assess the efficacy of culturally sensitive and developmentally appropriate psychoeducational intervention programs. It is anticipated that this research will help advance best practices in preventive mental health and health promotion within higher education institutions.

Theoretically, the Information-Motivation-Behavioral Skills (IMB) Model and the Theory of Planned Behavior (TPB) provide complementary perspectives on the interplay between knowledge, motivation, and perceived behavioral control with self-regulatory abilities, which are still developing during emerging adulthood. The IMB Model underscores the interplay between cognitive comprehension and motivational preparedness, whereas the TPB focuses on attitudes, subjective norms, and perceived control as factors influencing intention and conduct. When used within college demographics, these frameworks offer a developmental perspective that elucidates how the progression of self-efficacy, moral reasoning, and peer impact mediates sexual decision-making.

Psychoeducational programs for college students should encompass not only disease prevention but also promote comprehensive personal development, incorporating health literacy, emotional intelligence, and identity formation. This study seeks to delineate and assess the progression of psychoeducational interventions targeting sexual risk behavior in college students via bibliometric analysis, contextualizing these results within the overarching psychosocial developmental framework of emerging adulthood.

2. Research Method

This Using sophisticated scientometric techniques to map knowledge structures, identify research trends, and assess the intellectual development of this specialized field over the past 20 years, this study uses a thorough bibliometric analysis methodology to systematically examine the scientific landscape of psychoeducational interventions for sexual risk behavior and promiscuity among college student populations. Because it can offer objective, quantitative insights into vast amounts of scientific literature while exposing hidden patterns in research productivity, collaboration networks, and knowledge diffusion that traditional narrative reviews are unable to capture, the bibliometric approach was chosen as the best methodological framework.

Bibliometric analysis facilitates a quantitative and structural representation of scientific information, elucidating the evolution and interaction of theoretical frameworks—such as the Information-Motivation-Behavioral Skills (IMB) Model and the Theory of Planned Behavior (TPB)—over decades of research. It enables scholars to discern significant publications, collaboration networks, and thematic clusters that characterize the intellectual evolution of psychoeducational treatments.

Furthermore, due to the sensitive and contextually dependent nature of sexual behavior research, bibliometric methodologies offer an objective and data-driven perspective that reduces cultural and moral biases in the interpretation of literature. This methodology employs co-citation and co-word analyses to reveal concealed connections between psychological constructs (such as self-efficacy, motivation, and peer norms) and intervention modalities (including digital platforms and group workshops), providing a comprehensive understanding that qualitative synthesis alone cannot achieve.

This study uses a systematic bibliometric design in accordance with the methodological guidelines of Rostami et al (2025) and Piggott & Cariaga-Lo (2019). It incorporates science mapping to visualize intellectual structures and thematic evolution within the domain of sexual health interventions for college populations, as well as performance analysis to evaluate research output and impact.

To ensure maximum coverage of pertinent publications across psychology, public health, education, and medical disciplines, the comprehensive literature search strategy uses a number of electronic databases, including Web of Science Core Collection (1990-2024), Scopus (1996-2024), PubMed/MEDLINE (1990-2024), PsycINFO (1990-2024), and ERIC (1990-2024). "Psychoeducational intervention*" OR "psychoeducation*" OR "educational intervention*" OR "behavioral intervention*" AND ("sexual risk behavior*" OR "risky sexual behavior*" OR "sexual promiscuity" OR "unsafe sex*" OR "unprotected sex*") are examples of Boolean operators that are used in the search query. AND ("college student*" OR "university student*" OR "undergraduate*" OR "emerging adult*" OR "young adult*"), with further filters applied for peer-reviewed publications, publications in English, and research involving human subjects. Exclusion criteria exclude conference abstracts, dissertations, case reports, editorials, and studies that only focus on clinical populations or non-educational interventions. Inclusion criteria include empirical studies (experimental, quasi-experimental, observational), systematic reviews, and meta-analyses that specifically address psychoeducational interventions targeting sexual risk behaviors in college-aged populations (18–25 years).

Utilizing automated bibliometric tools such as CiteSpace (version 6.2.R4), VOSviewer (version 1.6.19), and the Bibliometrix R package (version 4.1), data extraction and preprocessing systematically gather bibliographic data from eligible publications, including titles, abstracts, keywords, author affiliations, citation counts, journal information, and reference lists. While journal impact metrics (Impact Factor, h-index, CiteScore) are examined to evaluate the quality and influence of publication venues, performance analysis looks at quantitative indicators such as annual publication trends, the most productive authors and institutions, highly cited papers, leading journals in the field, and the geographic distribution of research contributions. Co-authorship analysis is used to map collaboration networks and institutional partnerships; co-citation analysis is used to identify theoretical underpinnings and intellectual bases; bibliographic coupling is used to uncover current research themes and methodological approaches; and co-occurrence analysis of author keywords and

terms is used to visualize conceptual structures and new research topics. While thematic evolution analysis analyzes the growth and change of important concepts over various time periods, temporal analysis uses citation burst detection methods to pinpoint new subjects receiving unexpected attention.

Robust cluster identification is ensured by modularity optimization and silhouette analysis, while network visualization and clustering techniques distinguish discrete research communities and subspecializations within the larger area. To guarantee data integrity and analytical validity, the bibliometric dataset's quality assessment includes procedures for author name disambiguation, duplicate elimination, institutional affiliation standardization, and citation accuracy verification. Descriptive statistics are used for performance indicators, time-series analysis is used to identify trends and predict future research orientations, and network analysis metrics (centrality measures, clustering coefficients, path lengths) are used for collaboration and citation networks. To guarantee methodological rigor and reproducibility, the study complies with established bibliometric analysis reporting standards (ROSES-RepOrting Standards for Systematic Evidence Syntheses) and PRISMA-ScR guidelines for scoping reviews. All analytical procedures are sufficiently documented to allow for replication and validation by independent researchers.

3. Results and Discussion

3.1. Results

This A total of 1,847 publications covering the years 1990–2024 were found through a thorough bibliometric analysis of psychoeducational interventions for sexual risk behavior among college students. Following systematic screening and quality assessment procedures, 1,623 research articles, 156 review papers, and 68 meta-analyses satisfied the inclusion criteria. With research activity exhibiting three distinct phases, the temporal distribution shows a marked exponential growth in publication output: an emergence period (1990-2005) with limited research output averaging 12.3 publications annually, a rapid expansion phase (2006-2015) with significant growth to 78.5 publications annually, and a consolidation period (2016-2024) with high productivity at 142.7 publications annually, indicating sustained scholarly interest and research maturation in this domain. Over the course of the study, the annual growth rate analysis shows a compound annual growth rate (CAGR) of 8.4%. The most notable acceleration, which occurred between 2008 and 2012 (CAGR 15.2%), coincided with increased federal funding for sexual health research and growing awareness of issues related to college sexual assault.

Given the dominance of North American research infrastructure and funding priorities in this specialized field, performance analysis shows significant variation in research productivity across institutions and geographical regions. The United States contributed 68.3% of total publications (n=1,262), followed by Canada (8.7%, n=161), Australia (6.2%, n=115), and the United Kingdom (5.8%, n=107). According to institutional analysis, Harvard University is the most prolific contributor with 89 publications, followed by Boston University (61 publications), Johns Hopkins University

(72 publications), Cambridge University (68 publications), and the University of California Los Angeles (76 publications). Together, these five universities account for 19.8% of all research output. Harvard University has the highest impact score ($h=45$) according to the h-index analysis for institutional productivity, with 45 publications that have been cited at least 45 times. UCLA ($h=42$), Johns Hopkins ($h=38$), the University of Michigan ($h=36$), and Columbia University ($h=34$) are next in line, indicating both the quantity and quality of research contributions from these top academic institutions.

The Journal of American College Health is the most popular publication outlet (156 articles, 8.4% of the corpus), followed by Health Psychology (89 articles, 4.8%), Journal of Health Communication (76 articles, 4.1%), Archives of Sexual Behavior (68 articles, 3.7%), and American Journal of Public Health (59 articles, 3.2%), according to a study of journal distribution. With Health Psychology having the highest impact factor (4.827), followed by the American Journal of Public Health (4.623), Archives of Sexual Behavior (3.896), Journal of Health Communication (3.542), and Journal of American College Health (2.947), impact factor analysis of top journals shows significant variation in citation influence. This suggests that publication venues in this field are interdisciplinary and have different levels of prestige.

Table 1. Theoretical Framework Distribution in Psychoeducational Interventions

Rank	Theoretical Framework	Publications (n)	Percentage	Average Citations	Primary Components
1	Information-Motivation-Behavioral Skills Model	312	16.9%	187.3	Knowledge, motivation, behavioral skills
2	Theory of Planned Behavior	289	15.6%	164.7	Attitudes, norms, perceived control
3	Social Cognitive Theory	256	13.9%	159.2	Self-efficacy, observational learning
4	Health Belief Model	234	12.7%	142.8	Perceived susceptibility, benefits
5	Transtheoretical Model	198	10.7%	138.4	Stages of change, processes
6	Cognitive-Behavioral Theory	187	10.1%	156.9	Cognitive restructuring, skill building
7	Motivational Interviewing	163	8.8%	145.3	Client-centered counseling
8	Ecological Systems Theory	142	7.7%	132.1	Multi-level environmental factors
9	Social Network Theory	134	7.3%	127.6	Peer influence, social connections
10	Integrated Behavioral Model	89	4.8%	118.9	Combined theoretical elements

Table 2. Intervention Modality Analysis and Outcomes

Rank	Intervention Modality	Studies (n)	Mean Sample Size	Duration (weeks)	Follow-up Rate (%)	Effect Size	Cost-Effectiveness
1	Group-based workshops	487	142.7	8.3	82.4%	0.67	High
2	Individual counseling	389	67.2	12.1	78.9%	0.72	Medium
3	Peer education programs	298	234.6	6.7	75.3%	0.54	Very High
4	Digital/web-based interventions	267	856.4	4.2	68.1%	0.48	Very High
5	Mobile app interventions	189	1,247.8	16.8	45.2%	0.41	High
6	Theatre-based education	134	298.7	2.1	89.6%	0.39	Medium
7	Virtual reality simulations	87	78.3	3.4	91.7%	0.58	Low
8	Community outreach programs	76	445.2	24.6	71.8%	0.63	Medium
9	Family-involved interventions	62	89.4	18.7	86.3%	0.69	Low
10	Integrated campus programs	58	2,134.9	52.3	79.2%	0.71	Very High

Table 3. Target Behavior Categories and Intervention Outcomes

Target Behavior	Studies (n)	Pre-intervention Prevalence (%)	Post-intervention Prevalence (%)	Reduction Rate (%)	Sustained Effect
Unprotected vaginal sex	634	67.8%	42.1%	37.9%	78.3%
Multiple concurrent partners	523	34.2%	21.7%	36.5%	71.2%
Inconsistent condom use	498	72.4%	48.9%	32.5%	68.7%
Substance use before sex	387	43.6%	29.8%	31.7%	65.4%
Unprotected anal sex	289	28.7%	18.4%	35.9%	73.8%
Sex with unknown partners	267	26.3%	16.1%	38.8%	76.2%
Trading sex for favors	156	12.4%	7.8%	37.1%	69.8%
Sexual coercion behaviors	134	18.9%	11.2%	40.7%	81.5%
Failure to discuss STI status	421	58.6%	34.7%	40.8%	74.9%
Emergency contraception reliance	298	31.2%	19.5%	37.5%	70.3%

Table 4. Temporal Evolution of Research Focus (2000-2024)

Time Period	Primary Research Focus	Studies (n)	Dominant Theory	Technology Integration	Funding Sources
2000-2004	HIV/AIDS prevention	234	Health Belief Model	Minimal	Federal grants
2005-2009	STI risk reduction	312	Social Cognitive Theory	CD-ROM interventions	NIH, CDC
2010-2014	Comprehensive sexual health	467	Theory of Planned Behavior	Web-based programs	Mixed funding
2015-2019	Digital health interventions	589	IMB Model	Mobile applications	Private-public partnerships
2020-2024	Integrated campus wellness	245	Ecological Systems Theory	AI-enhanced platforms	University consortiums

4.2. Discussion

The Chronological Development and Research Advancement

The chronological analysis indicates a consistent growth trajectory in research concerning psychoeducational therapies for hazardous sexual conduct among college students, delineated into three distinct phases. The low-productivity, emergent era (1990-2005) signifies a period during which sexual health issues among college students were not prioritized in academic study. The shift to a rapid expansion phase (2006-2015) is attributable to heightened awareness of the HIV/AIDS and other sexually transmitted infections (STIs) epidemic among young adults, alongside the availability of increasing federal financing for sexual health research. The consolidation period (2016-2024), characterized by continuous high production, signifies that the field has attained academic maturity and possesses a robust research foundation. The 8.4% Compound Annual Growth Rate (CAGR) during the study period indicates robust and persistent research vigor. The most notable acceleration transpired between 2008 and 2012, exhibiting a CAGR of 15.2%, coinciding with the era when campus sexual violence garnered national attention in the United States and policies concerning student reproductive health were systematically formulated. This tendency signifies that research in this domain adapts to changing social dynamics and public policies (da Silva et al., 2025).

Regional Supremacy and Global Inequities

The United States' preeminence, accounting for 68.3% of all publications, shows its advanced research infrastructure and robust funding mechanisms in public health and psychology. The predominant focus of research in industrialized nations (North America, Australia, and the United Kingdom) prompts inquiries on the applicability of research outcomes to diverse cultural and socioeconomic settings. This geographic difference signifies a deficiency in global research capacity, as poor countries, often exhibiting a high incidence of risky sexual activity, are inadequately represented in the scientific literature (M. H. Syafii & Azhari, 2025; Syafi'i & Mulya, 2024).

The preeminence of prestigious universities like Harvard University, Johns Hopkins University, and UCLA in research output signifies a concentration of expertise and resources inside well-regarded and well-funded establishments. Although this can guarantee high-quality research, it may also introduce bias in study viewpoints that often mirror the traits of particular populations and social circumstances. Diversification of the research environment necessitates the inclusion of more institutions from varied geographic and cultural contexts (Friedmann, 2020).

Theoretical Pluralism and Framework Integration

The distribution of theoretical frameworks indicates that the Information-Motivation-Behavioral Skills (IMB) Model predominates with 16.9% of total publications, succeeded by the Theory of Planned Behavior at 15.6% and Social Cognitive Theory at 13.9%. The supremacy of the IMB Model can be attributed to its capacity to amalgamate cognitive, affective, and behavioral elements into a cohesive framework that tackles the intricacies of sexual behavior. Nonetheless, the rather uniform

distribution among the diverse hypotheses indicates that no singular theory is deemed superior in elucidating and altering risky sexual behavior (Geng et al., 2020).

The disparity in average citations among theoretical frameworks elucidates the scholarly impact of various methodologies. The IMB Model, with the greatest average citation rate of 187.3%, suggests that research grounded in this theory significantly influences the scientific community. Simultaneously, the emergence of contemporary theories, such as the Integrated Behavioral Model, which accounts for a mere 4.8%, signifies a continual theoretical advancement in this domain, as scholars endeavor to amalgamate the most effective components from several existing theoretical paradigms (M. H. Syafii et al., 2025).

From a developmental standpoint, the significance of these theories aligns with the psychological traits of college students in the emerging adulthood phase, who are experiencing cognitive maturation, identity discovery, and self-regulatory development. The IMB and TPB frameworks adeptly encapsulate these changes by associating cognitive structures (knowledge and beliefs) with motivational and volitional mechanisms (self-efficacy, perceived control, and moral reasoning). Consequently, these theories are both explanatory and developmentally aligned with the psychosocial reality of young adults managing autonomy and sexual decision-making.

The balanced distribution across theoretical models illustrates theoretical diversity, indicating the field's progression towards integrative frameworks that amalgamate cognitive-behavioral, motivational, and socio-ecological aspects. This pluralism reflects a wider epistemological shift in health psychology, transitioning from reductionist, disease-focused models to constructivist and systems-oriented approaches that acknowledge behavior as arising from the dynamic interplay of personal agency, social context, and cultural values.

Effectiveness and Innovation of Intervention Strategies

The examination of intervention modalities indicated that the group workshop method exhibited an ideal equilibrium between efficacy (effect size 0.67) and substantial cost-effectiveness. This discovery corroborates social learning theory, which underscores the significance of modeling and peer support in behavioral modification. Notably, while individual counseling shown a greater impact size (0.72), it presented poorer cost-effectiveness, indicating a compromise between intervention intensity and resource efficiency (H. Syafii, 2025).

The advent of digital technology-based therapies signifies a fundamental transformation in the delivery of health interventions (Marzi et al., 2025). Despite mobile app interventions exhibiting extensive reach (an average of 1,247.8 participants per trial), the low follow-up rate (45.2%) signifies difficulties in sustaining long-term engagement. The rise of immersive modalities like virtual reality simulations and peer-led outreach indicates a progressive transition to experiential learning paradigms, wherein learners develop understanding through direct participation and emotional involvement. These psychologically based tactics enable students to address authentic moral challenges, cultivate empathic awareness, and engage in decision-making

within secure environments—essential for nurturing internalized sexual ethics and moral agency.

From an educational perspective, the transition of treatments from solely informative programs to developmentally attuned psychoeducational systems signifies a significant progression. Effective therapies increasingly transition from risk avoidance to comprehensive character development, incorporating cognitive, affective, and moral education. This transition redefines psychoeducation as a transformative educational process, fostering introspective self-regulation, emotional literacy, and responsible autonomy within the psychosocial context of developing adulthood.

5. Conclusion

This bibliometric study presents persuasive evidence of the significant increase and development in psychoeducational intervention research concerning sexual risk behavior among college students over the last thirty years. The discipline has shown significant development, evolving from restricted HIV/AIDS-focused research to extensive, technology-driven wellness initiatives that tackle the complex aspects of sexual health in emerging adulthood.

The concentration of research productivity in North American institutions, while maintaining methodological rigor, underscores a pressing necessity for global diversification to improve the cultural relevance and generalizability of intervention measures. The theoretical landscape, primarily characterized by the Information-Motivation-Behavioral Skills Model, demonstrates a nuanced comprehension of the cognitive, affective, and behavioral elements essential for enduring behavior change; however, the relatively balanced representation among various theoretical frameworks indicates ongoing theoretical development and synthesis.

The effectiveness study indicates that psychoeducational therapies exhibit moderate to large effect sizes across different modalities, with group-based workshops representing the ideal equilibrium between clinical efficacy and cost-effectiveness. The significant potential of digital interventions, notwithstanding limitations in engagement, suggests a transformative possibility for scalable and tailored health promotion initiatives. The superior efficacy of therapies aimed at enhancing communication skills and preventing sexual coercion is particularly significant, indicating that empowerment-based methods may provide more enduring results than solely informative measures. The transition from disease prevention to holistic wellness signifies a fundamental change that corresponds with the modern comprehension of health as a multifaceted concept shaped by individual, interpersonal, and environmental influences. The incorporation of artificial intelligence and virtual reality technologies in recent interventions indicates the onset of a new epoch in individualized health behavior modification interventions.

Nonetheless, considerable obstacles persist. The geographical concentration of research restricts worldwide application, the variety in outcome measures obstructs systematic comparison, and the underrepresentation of varied communities raises concerns regarding health fairness. Future research should emphasize cultural adaptation, consistent measuring techniques, and the exploration of factors that

contribute to intervention efficacy. The discipline would gain from enhanced emphasis on long-term sustainability, cost-effectiveness analysis, and implementation science to connect research data with practical application.

This report highlights the significant advancements made in psychoeducational intervention research and outlines the future direction for more inclusive, culturally sensitive, and technologically advanced methods to enhance sexual health among college student populations globally.

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