

# Investigating Aspects of Human Sexuality and Sexual Health, Including the Incidence of Sexually Transmitted Infections and Access to Safe Sex Resources

## Original Article

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### Conflict of Interest:

None

### Grant Support & Financial Support:

None

**Date Submitted:** 12-07-2023.

**Date Published:** 31-12-2023.

Volume 1 Issue 2, 2023

### Abstract

**Background:** Addressing the complexities of sexual health requires comprehensive education and accessible services to foster safe and supportive environments. Current public health strategies often fall short in equipping individuals with the necessary knowledge and resources, underscoring a crucial gap in our healthcare delivery systems.

**Objective:** To evaluate the effectiveness of intensive sexual health education in improving knowledge about sexually transmitted infections (STIs), utilization of sexual health services, and perceptions of safe and supportive environments compared to standard information dissemination.

**Methods:** A controlled study was conducted with 204 participants divided into two groups. Group 1 (n=102) received targeted sexual health education and monthly discussion forums, while Group 2 (n=102) received standard health pamphlets. Both groups had access to similar sexual health services. Data were collected at baseline and after six months through questionnaires assessing knowledge, service utilization, and safety perceptions. Statistical analysis included chi-square and t-tests to compare outcomes between the groups.

**Results:** Group 1 demonstrated a significantly higher rate of correct answers with 80.4% in Sexual Health Education (82/102), 77.5% in Sexual Health Services (79/102), and 73.5% in Safe and Supportive Environments (75/102). In contrast, Group 2 showed lower correctness rates of 60.8% (62/102), 54.9% (56/102), and 48.0% (49/102) respectively in these categories. The differences were statistically significant with p-values <0.01 across all topics.

**Conclusion:** Intensive sexual health education significantly enhances knowledge and promotes safer sexual behaviors. Strategic educational interventions are crucial in public health efforts to reduce the prevalence of STIs and improve the overall sexual health of the population. Long-term studies and scalable models are needed to sustain and expand these benefits.

**Keywords:** Education, Health Services, Public Health, Safe Environments, Sexual Health, STIs, Supportive Environments, Utilization, Well-being.

## INTRODUCTION

The contemporary landscape of sexual health research is characterized by a growing awareness of the multifaceted challenges associated with sexually transmitted infections (STIs) and their impact on public health systems worldwide (1). The emergence of resistant strains of pathogens, coupled with changing social norms and behaviors, presents a complex scenario for researchers and policymakers aiming to curb the incidence of these infections (2). This article delves into the latest developments in the field, shedding light on the advancements made as well as the persistent hurdles that impede progress (3).

Sexual health, a critical component of overall well-being, encompasses more than the absence of disease or infirmity; it involves a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence (4). For individuals and communities to attain and maintain sexual health, their sexual rights must be respected, protected, and fulfilled (5). However, despite global efforts, STIs remain a significant public health challenge that requires a multidimensional approach involving biomedicine, public health strategies, and socio-political activism (6).

The strengths of current research in sexual health are evident in the significant strides made towards understanding the transmission dynamics, treatment modalities, and preventive measures against STIs (7). Innovative diagnostic tools and therapeutic regimens have enhanced our capability to manage infections more effectively and prevent their spread (8). For instance, the development and deployment of rapid diagnostic tests have facilitated early detection and treatment, critical components in the management of STIs (9). Moreover, research into vaccine development, particularly for viruses like the human papillomavirus (HPV) and Hepatitis B, has proven immensely beneficial in controlling the spread of these infections (10).

However, these advancements are not without limitations (11). The disparity in access to healthcare services across different regions creates uneven outcomes in the management of STIs (12). While developed nations might benefit from the latest innovations in healthcare technology, developing regions continue to struggle with basic healthcare needs, compounded by a lack of infrastructure and resources (13). Additionally, cultural stigmas and lack of education about sexual health impede the effectiveness of prevention campaigns, particularly in conservative or resource-limited settings (14).

The debate within the field of sexual health research often centers around the balance between technological advancement and equitable healthcare delivery (15). While we celebrate the scientific achievements that have brought forth new treatments and preventive measures, the application of these advancements raises questions about fairness, accessibility, and ethical considerations (16). The challenge lies not only in developing medical solutions but also in ensuring that these solutions are accessible to all, irrespective of geographic, economic, or social barriers (17).

The field of sexual health research stands at a crossroads between remarkable scientific progress and the ongoing need for comprehensive strategies that address the diverse needs of global populations. As we advance, it is crucial that the research community remains vigilant about integrating the strengths of new discoveries with a robust commitment to addressing the systemic barriers that prevent these breakthroughs from benefiting all individuals equally. This balance will be pivotal in shaping the future of sexual health and in achieving the broader goals of public health and equity.

## MATERIAL AND METHODS

The study was designed to assess the effectiveness of targeted sexual health education and the provision of sexual health services in creating safe and supportive environments for two distinct groups. Participants were recruited from urban and suburban settings, ensuring a diverse demographic representation. Each group consisted of 102 participants, with Group 1 (G1) designated as the knowledge group and Group 2 (G2) as the common group.

The knowledge group (G1) received an intensive sexual health education program, which included workshops, printed materials, and access to an online learning platform. These sessions were designed to enhance their understanding of sexually transmitted infections (STIs), methods of prevention, and the importance of regular health check-ups. This group also participated in monthly discussion forums where they could engage with health educators and ask questions in a safe environment. The content was medically vetted and tailored to address the specific needs and cultural sensitivities of the participants.

The common group (G2) did not receive the same intensive educational interventions but was provided with standard information pamphlets available at public health clinics. This group served as a control to gauge the impact of regular public health communications versus targeted educational efforts.

Both groups were given access to sexual health services, including free STI testing, counseling, and treatment options. These services were provided at local clinics associated with the study, ensuring that all participants had equal access to medical care. The clinics were staffed with trained healthcare professionals who provided confidential and non-judgmental services.

Data collection was conducted at baseline and then at six-month intervals for a period of two years. The primary outcomes measured included knowledge of STIs, attitudes towards safe sex practices, and utilization of sexual health services. Secondary outcomes focused on participants' self-reported sense of safety and support within their environments regarding sexual health.

Statistical analysis was performed using the chi-square test for categorical variables and the t-test for continuous variables. Differences between G1 and G2 were evaluated to determine the effectiveness of the targeted educational interventions. The level of significance was set at  $p < 0.05$ .

Throughout the study, ethical guidelines were strictly adhered to, with informed consent obtained from all participants. The study received approval from the institutional review board, ensuring that all research methods were conducted in accordance with the ethical standards of the medical community. This research aimed not only to illuminate effective strategies for sexual health education but also to foster environments that support safe sexual behaviors.

## RESULTS

Table 1: Mean Age of Participants

Group	Mean Age (years) ± SD
G1	28.5 ± 4.2
G2	29.1 ± 3.9

Table 2: Gender Distribution of Participants

Group	Male (%)	Female (%)
G1	55 (53.9%)	47 (46.1%)
G2	59 (57.8%)	43 (42.2%)

These tables provide a clear, statistical overview of the demographic characteristics of the study population, divided by group allocation, helping in the interpretation of the impact of the interventions across different age and gender demographics.

Table 3: Correct Responses to Key Topics by Group

Topic	Group 1 Correct Answers (%)	Group 2 Correct Answers (%)	P-value
1. Sexual Health Education	82 (80.4%)	62 (60.8%)	<0.01
2. Sexual Health Services	79 (77.5%)	56 (54.9%)	<0.01
3. Safe and Supportive Environments	75 (73.5%)	49 (48.0%)	<0.01

Table 3 displays the comparative results for correct responses on three key topics related to sexual health across two distinct groups. Group 1, which received intensive educational interventions, showed notably higher correctness rates: 80.4% for Sexual Health Education (82 out of 102), 77.5% for Sexual Health Services (79 out of 102), and 73.5% for Safe and Supportive Environments (75 out of 102). In contrast, Group 2, with only standard information, scored 60.8% (62 out of 102), 54.9% (56 out of 102), and 48.0% (49 out of 102), respectively, across these topics. The statistical significance of these differences was confirmed with P-values <0.01, indicating substantial impacts of the targeted interventions.

## DISCUSSION

The outcomes of this study clearly demonstrated the effectiveness of intensive educational interventions in enhancing the knowledge of sexual health, services, and the creation of supportive environments (18). Group 1, which received a comprehensive sexual health education program, exhibited significantly higher rates of correct responses across all measured topics compared to Group 2, which had access only to standard information (19). This disparity underscores the critical role that structured and targeted educational programs play in sexual health awareness and advocacy (20).

Furthermore, the provision of sexual health services that were equally accessible to both groups facilitated an analysis unclouded by disparities in healthcare access. This aspect of the study design strengthens the argument that the observed differences in knowledge and awareness can be attributed predominantly to the educational interventions rather than external variables. The consistency of these services, combined with the high engagement rates in Group 1, suggests that the integration of comprehensive educational content with regular health services significantly boosts the effectiveness of public health interventions (21).

However, the study was not without its limitations. The reliance on self-reported data may introduce a bias, as participants might have provided socially desirable responses rather than truthful ones. Additionally, the short duration of follow-up limits the ability to assess the long-term retention of knowledge and behavioral changes post-intervention. Future studies could benefit from a longitudinal approach that allows for the evaluation of sustained behavioral changes over a longer period, potentially providing a more accurate depiction of the interventions' effectiveness (22).

Moreover, while the findings provide robust evidence supporting targeted educational programs, the study also highlights the challenges in scaling such interventions. The resource-intensive nature of customized educational programs poses significant challenges for

widespread implementation, particularly in resource-limited settings. This consideration is crucial for policymakers and public health officials aiming to generalize the findings to broader populations (23).

## CONCLUSION

This research firmly supports the notion that intensive sexual health education significantly improves knowledge and awareness, contributing to safer sexual behaviors and better utilization of health services. Despite the limitations, the study provides valuable insights into the mechanisms through which education can influence public health outcomes and underscores the need for ongoing investment in sexual health education as a fundamental public health strategy. Future research should aim to explore sustainable models of education that balance efficacy with broad accessibility to maximize public health impact.

## REFERENCES

1. Ortayli N, Ringheim K, Collins L, Sladden TJC. Sexually transmitted infections: progress and challenges since the 1994 International Conference on Population and Development (ICPD). 2014;90(6):S22-S31.
2. Talley JOJMSRJ. The impact of social stigmas on sexual health seeking behavior: A review of literature. 2020;13(1):11.
3. Darrow WWJSTI. Health education and promotion for STD prevention: lessons for the next millennium. 1997;73(2):88-94.
4. Katito J. The Role of Social Research in the Fight Against HIV/AIDS in Brazil and South Africa, 1990s-2010s. An Assessment of the Socio-Political Context of Knowledge Production and Use. 2014.
5. Poku NK. Sexual and reproductive health and rights in Sub-Saharan Africa: Springer Nature; 2021.
6. Poku NK, Poku NKJS, Health R, Africa RiS-S. The Principle of Sexual and Reproductive Health and Why It Is Central to Broad Advancements in Human Health and Development in Sub-Saharan Africa. 2020:7-29.
7. Crowley JS, Geller AB, Vermund SH, National Academies of Sciences E, Medicine. Biomedical Tools for STI Prevention and Management. Sexually Transmitted Infections: Adopting a Sexual Health Paradigm: National Academies Press (US); 2021.
8. Carlson K. Prevention, Screening, and Treatment of Sexually Transmitted Infections. Lifestyle Medicine, Third Edition: CRC Press; 2019. p. 697-706.
9. Del Romero J, García-Pérez JN, Espasa-Soley MJEiymc. Prevention and treatment of sexually transmitted infections in high-risk individuals, including patients with HIV infection. 2019;37(2):117-26.
10. Workowski KA, Bachmann LHJCid. Centers for disease control and prevention's sexually transmitted diseases infection guidelines. 2022;74(Supplement\_2):S89-S94.
11. Valentine JA, Delgado LF, Haderxhanaj LT, Hogben MJA, Behavior. Improving sexual health in US rural communities: reducing the impact of stigma. 2022;26(Suppl 1):90-9.
12. Mousa MJGE, Review SP. Breaking the Silence: Unveiling the Challenges of Women's Reproductive Health. 2023:128-43-43.
13. Quan NK, Taylor-Robinson AW, Nguyen QKJC. Vietnam's evolving healthcare system: notable successes and significant challenges. 2023;15(6).
14. Shukla A, Vazquez-Quesada L, Vieitez I, Acharya R, RamaRao SJRH. Quality of care in abortion in the era of technological and medical advancements and self-care. 2022;19(1):191.
15. Ahmad A, Tariq A, Hussain HK, Gill AYJBJMI. Equity and artificial intelligence in surgical care: A comprehensive review of current challenges and promising solutions. 2023;2(2):443-55.
16. Aminabee S. The Future of Healthcare and Patient-Centric Care: Digital Innovations, Trends, and Predictions. Emerging Technologies for Health Literacy and Medical Practice: IGI Global; 2023. p. 240-62.
17. Vanholder R, Annemans L, Braks M, Brown EA, Pais P, Purnell TS, et al. Inequities in kidney health and kidney care. 2023;19(11):694-708.
18. Sun WH, Miu HYH, Wong CKH, Tucker JD, Wong WCWJTJoSR. Assessing participation and effectiveness of the peer-led approach in youth sexual health education: systematic review and meta-analysis in more developed countries. 2018;55(1):31-44.

19. Corcoran JL, Davies SL, Knight CC, Lanzi RG, Li P, Ladores SLJJoA. Adolescents' perceptions of sexual health education programs: An integrative review. 2020;84:96-112.
20. Lee GY, Lee DYJSE. Effects of a life skills-based sexuality education programme on the life-skills, sexuality knowledge, self-management skills for sexual health, and programme satisfaction of adolescents. 2019;19(5):519-33.
21. Yakubu I, Garmaroudi G, Sadeghi R, Tol A, Yekaninejad MS, Yidana AJRh. Assessing the impact of an educational intervention program on sexual abstinence based on the health belief model amongst adolescent girls in Northern Ghana, a cluster randomised control trial. 2019;16:1-12.
22. Schell C, Godinho A, Cunningham JAJSa. To thine own self, be true: Examining change in self-reported alcohol measures over time as related to socially desirable responding bias among people with unhealthy alcohol use. 2021;42(1):87-93.
23. Shrestha G, COOPER BLR, HILL LG, Weybright EJIsl. Evaluating statewide efforts to prevent adolescent substance use in Washington using the RE-AIM framework. 2021;16(Suppl 1):49-.