



Looking into Sexual Risk-Taking Literature: A Bibliometric Analysis

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ARTICLE INFO

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Dates:

Received: 14-01-2025
Accepted: 12-05-2025
Published: 20-06-2025

Keywords:

Sexual risk-taking,
Biblioshiny, Bibliometric
analysis

How to Cite:

Prabha DK, Francis
NMP. Looking
into Sexual Risk-
Taking Literature: A
Bibliometric Analysis.
*Indian Journal of
Health, Sexuality and
Culture*. 2025;11(1): 11-17.
DOI: 10.21590/ijhsc.11.01.03

Abstract

Most young people engage in risky behaviors and experience unintended outcomes. One among them is sexual risk-taking behavior which includes sex work, having multiple partners, having sex under the influence of substances, unprotected sex, etc. This bibliometric study provides insight into the literature on sexual risk-taking and identifies the gap for further investigation into the field of research. The database used were Scopus and PubMed in which a valid search strategy was built to retrieve all the relevant information and eliminate irrelevant documents. The data from the retrieved literature is exported to plain text and Bibtex file and then further converted to MS Excel file through Rstudio and Biblioshiny. After excluding the reviews, limiting to psychology, and removing duplicates a total of 3545 articles from 753 sources were retrieved for further data extraction. The topics with recent relevance are STI, pregnancy, risk factors, and adolescent sexual behavior. It is noted that the STI including HIV is a threat to the national public health which needs to be addressed and controlled from the early stage of sexual development of children. Thus, more research needs to be carried out in the field of adolescent sexual risk-taking behavior and its connection with the spreading of STIs and the interventions and psychoeducation in the early stage to tackle this public health trajectory.

INTRODUCTION

Risky behaviors are those actions that involve the potential for subjective loss. Thus, risk-taking consists of participating in behaviors with potential loss or uncertainty. Risky activities of particular concern include the use of illegal drugs, sexual intercourse, school dropout, cigarette smoking, and driving under the influence of alcohol [1]. Risk-taking behaviors take root during adolescence and early adulthood and often carry over into later years, leading to an ongoing health challenge [2]. Many health-risk behaviors, such as substance use and sexual risk-taking, often begin during adolescence. Risk-taking behaviors typically follow a developmental trajectory [3].

The sexual risk-taking behavior (SRB) has both psychosocial and physical health consequences. It is identified as a public health problem, especially in adolescents and young adults. The SRBs include behaviors such as having sex without contraception, sex work, sexual partner violence, substance abuse

before sexual intercourse, sexual relationships with individuals other than a wife or girlfriend, a history of sexually transmitted diseases in the past 12 months, and other sexual activities that harm themselves or others [4]. Risky sexual behavior is identified as a serious problem in the student population, as there are times when the friendship between opposite sexes moves forward to the exchange of sexual favors. Among college students, casual sex and “hookups” are considered to be the normal trend. It is also noted that college students are not threatened to reveal their SRB, and social desirability plays no role [5].

In India, discussion on the sexual health of individuals is a taboo, which in turn leads to the hidden patterns of sexual risk-taking behaviors among children and adolescents. A Jaipur-based study pointed out the role of communication among couples in the use of condoms. It noted that sexual health was never discussed among couples which was a major hindrance to HIV prevention interventions and strategies [6]. It is also reported that the majority of women in India are shy to discuss their sexual health with their husbands and there are cases where the women’s fear of domestic violence hinders communication thereby the sexual risk-taking increase and also Sexually Transmitted Diseases (STI).[7, 8] Men’s sexual risk-taking behavior comes out from toxic masculinity that is socially sanctioning for having multiple partners and sexual domination [9].

Sexually Transmitted Diseases (STIs) such as Human Immunodeficiency Virus (HIV) were found to be a serious threat to the development of the youth. The sexual risk-taking behaviors are found to be increasing in India through the exchange of culture. It is identified that half of the STI-affected individuals are affected before the age of 25 and similarly, 85% of HIV infections occur through unprotected sexual contact [10, 11]. In a study conducted on Indian men, it was identified that there is a connection between favorable attitudes toward domestic violence and risky sexual behavior where there is a 56% increase in risky sexual behavior. The study also pointed out that men with male-dominant decision-making, are more likely to engage in sexual risk-taking behaviors and put themselves and their partners at HIV risk [12].

Sexual risk-taking is an area that requires more attention due to its impact on the public health trajectory. The studies in the field focus on a wide variety of factors that influence sexual risk-taking behavior and the research has been done in the area focussing on Asian and African countries. The current study looks forward to the bibliometric analysis of literature on sexual risk-taking behavior worldwide. This bibliometric study provides an insight into the literature on sexual risk-taking and identifies the gap for further investigation into the field of research. Future researchers get an overall picture of the area of sexual risk-taking. Furthermore, bibliometric analysis helps find major research themes and is helpful for active researchers and research institutions for planning research in the field of sexual risk-taking.

MATERIALS AND METHODS

Database

The initial phase of bibliometric analysis is to decide the appropriate database from which the information needs to be retrieved. In the current study, Scopus and PubMed were used to answer the research questions. Scopus is a larger database in which more than 23,000 journals in all scientific fields exist [13]. PubMed focuses on medical-related articles as well as articles from psychological disciplines. Also, PubMed is an open-access database that does not require any subscriptions. Scopus and PubMed have advanced methods of search in which the data can be narrowed down into its essence to get a clearer picture of the situation under study.

Search Strategy

The second step in bibliometric analysis is to build a valid search strategy for retrieving all the relevant documents with a minimum of irrelevant documents. The search strategy include the key terms mentioned in the title, keywords, abstract, or in all fields of the research articles. The search terms included are “risk taking behavi*” OR “risk seeking behavi*” OR “risky behavi*” OR “risk*” AND “sexual risk taking*” OR “sexual risk*” OR “risky sexual*” OR “risk sexual*” OR “High-risk sexual behavi*” OR “sexual

experiment*” OR “Irresponsible sexual behavi*” OR “Unprotected sex*” OR “Promiscuous behavi*” OR “Harmful sexual behavi*” AND “emerging adult*” OR “youth” OR “young adult*” The quotation in the Scopus and PubMed databases for more specificity in the search terms and the asterisk identifies more options for the search structure. The Boolean operators are used to get more precise documents in the search process. The search was limited based on period (10 years), subject area (Psychology), and limited to the English language.

Validation

The search queries were validated by the researcher by going through the title and reading the abstract to make sure it was included in the sexual risk-taking literature. This helps eliminate false-positive results by excluding irrelevant documents. The documents other than sexual risk-taking behavior were eliminated from the sample.

Data Analysis

The data from the retrieved literature is exported to plain text and Bibtex file and then converted to an xlsx file through R studio and Biblioshiny. A total of 3201 documents were retrieved through Scopus and 1183 documents through PubMed. Since the two databases were used, they may overlap and have duplicates of documents. The duplicates of the documents were removed using R Studio, there were 828 duplicates found. The content of retrieved data involves author, publication, year, abstract, keywords, etc. Looking into the overview of the data, the timespan ranges from 2014 to 2024, with the sources of 753, incorporating 3545 documents from 13708 authors, were retrieved for further analysis.

RESULT AND DISCUSSION

Annual Scientific Production

Figure 1 shows the annual scientific production in SRT literature, which indicates a shift in the production over the past 10 years. There has been an increase in the production of scientific literature on SRT after 2014, which shows an elevated interest in the field due to its impact on public healthcare.

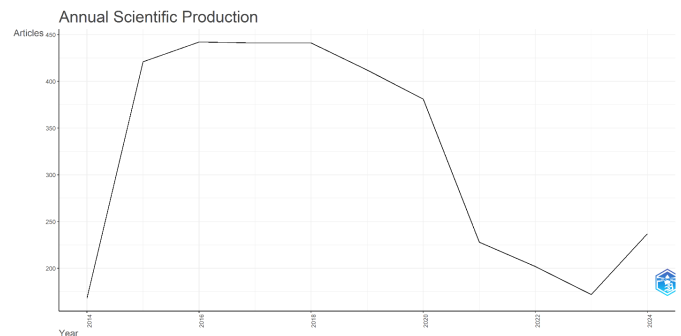


Figure 1: Annual scientific production in SRT

It is also seen that there is a gradual decrease in production from 441 articles in 2018 to 172 articles in 2023. In 2024, a small gain of interest in this field showed an annual production of 237 articles. The graph shows a persistent interest that emerged after 2015, which was there till 2018, and then there appears a decrease in annual scientific production.

Annual scientific production in SRT

The average citation per year steep down every year which shows a gradual loss of interest in the field of SRT. In 2014, the scientific annual production of articles was 168 with citations of 2.5 which tends to decrease in progressive years reaching a low average citation in 2024.

Most Relevant Sources

The SRT literature has been identified to be the major element in HIV and AIDS research. While looking into the most relevant sources in SRT articles are AIDS and Behavior (n=210), Plos One (n=150), Archives of Sexual Behavior (n=145), BMC Public Health (n=127) AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV (n=111). In the findings, it is noted that the journals connected to the HIV-AIDS are gaining more importance in the SRT literature. Notably, AIDS and Behavior with 210 articles found to be the most relevant source of scholarly work in SRT. Since SRT is identified to be a public health threat, public health journals became the more relevant sources in the scholarly conversation.

Figure 2 with the graph on the overtime production of articles in most relevant sources indicates the increase in cumulative production of scholarly

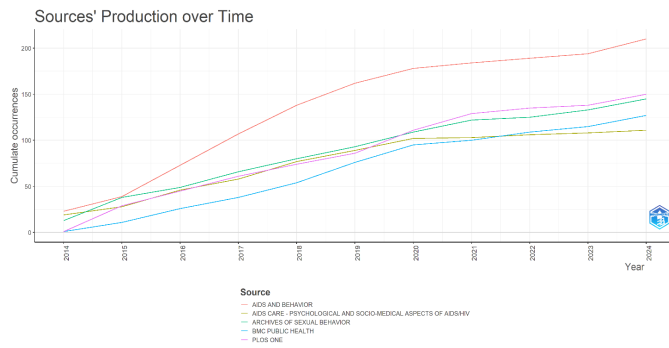


Figure 2: Overtime production of SRT articles in various sources

work in the journal AID and Behavior. The overtime production from 2014 to 2024 ranged from 23 articles to 210 articles. This gives a clear picture of SRT literature in the specific field of HIV-AIDS which reaches out to the deeper understanding of SRT in public health trajectory. Similarly, AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV show increased cumulative production in articles from 19 to 111 articles from 2014 to 2024 respectively. The data indicates that there is a gradual increase in the cumulative production of articles overtime in all the relevant sources in SRT literature.

Most Relevant Authors

The most relevant authors of SRT literature in which Mayer K is the most relevant author with the publication of 34 articles. Majority of the articles by this author related to the connection of sexual risk-taking in HIV and AIDS as well as its connection in transgender population, homosexuality, and bisexuality. Other relevant authors are Diclemente R and Mustanski B with 27 articles and Mimiaga M with 26 articles. The articles published by Diclemente R were SRT concerning substance users especially marijuana usage and the role of psychological disorders in SRT. Mustanski B came up with the cultural variations by studying various ethnic groups and explored homosexuality and HIV in specificity. In SRT literature there were about 8 authors who published articles ranging from 22- 20 articles.

The author's overtime production on sexual risk-taking shows a varying range of production of articles from 2014 to 2024 (Figure 3). Mayer K shows an increased production of 7.5 in the year 2017 which

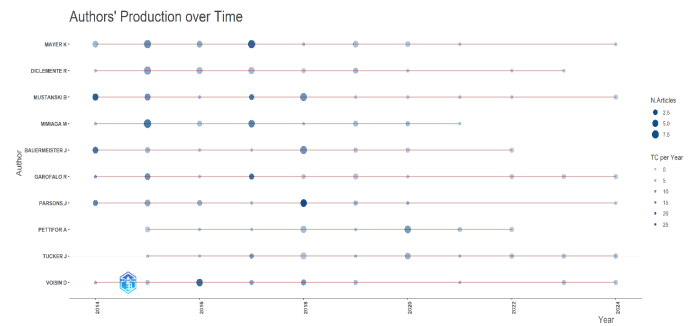


Figure 3: Authors' production over time

gradually decreases with only 1 article in the year 2024. A recent article by Mayer K was in the journal AIDS and Behavior on the topic Technology-Based Interventions, With A Stepped Care Approach, for Reducing Sexual Risk Behaviors and Increasing Prep Initiation among Transgender and Gender Expansive Youth and Young Adults. The exploration of the sexual risk-taking area of research steps to the next level of developing and applying intervention strategies to reduce the same. Mayer K published 8 articles in 2015 and 2017 with 11.7 citations in the year 2015 has been increased to 20.38 in 2017. This indicates a notable advancement in the field of SRT. Parson J published 6 articles in 2018 gaining more attention in the field with 25.29 citations per year. However, there is a decreasing trend of reduction in the overall production of articles and authors' production over time in the field of SRT research. This trend is notable for researchers for identifying the gaps in the field of SRT.

The country's overtime production in SRT literature

While looking into the graphical representation of the country's overtime production of articles in SRT research in Figure 4, it is clear that most articles in this field are from the USA. Also, there is an increase in the production of articles over time from 2014 to 2024 indicating the topic relevance and heightened production of articles from 17 to 4104 in the USA projects the issue of SRT in the Public health domain. The reason for this trend might be due to the influence of culture with an acceptance of

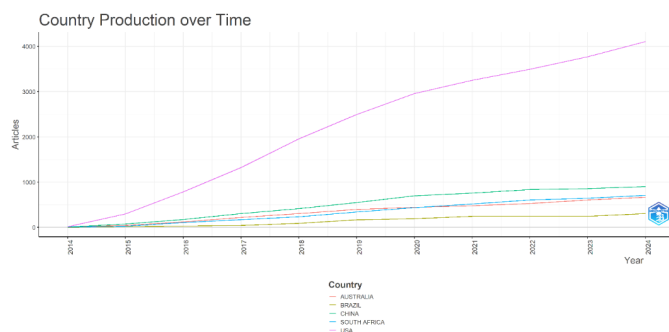


Figure 4: The country's overtime production

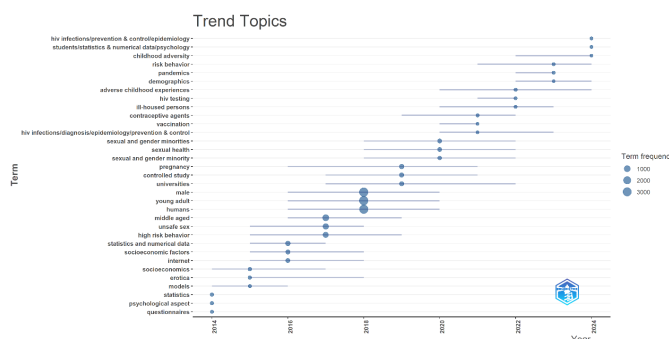


Figure 5: Trend topics in SRT research

sexual risk-taking behaviors in a wide range through technological means too or a large number of documents for publications from there. Apart from the USA, China produced 903 articles altogether in the field. The other countries that contributed to SRT literature are Brazil, Australia, and South Africa.

Trend Topics

Figure 5 illustrates the trending terms in the field of SRT literature from 2014 to 2024. The most trending term in SRT literature is males and young adults in 2018 with a term frequency of 3441 and 3399, respectively. This indicates the presence of SRT in the specific population of males and young adults. This term has changed to focus on HIV infections/prevention in 2024. A notable shift in the research in SRT literature from focusing on the factors related to SRT to the prevention and control of the behaviors and their public health impact. The other specific terms are childhood adversity, adverse childhood experiences, pregnancy, students and universities, and sexual and gender minorities. The terms point out the epidemiology and frequency of SRT in

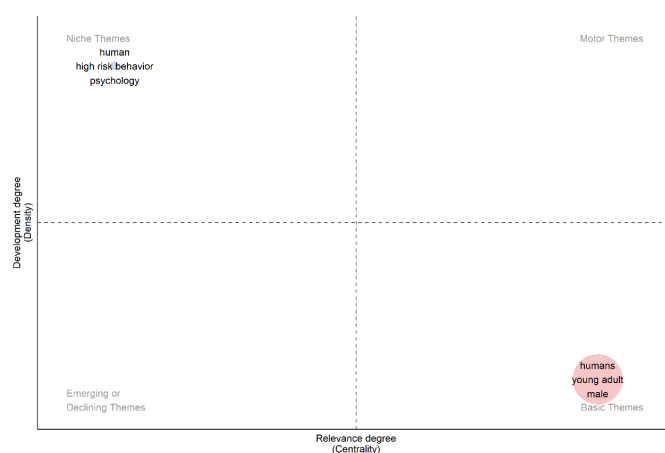


Figure 6: Thematic map of SRT research

various populations including students and sexual minorities. Investigation of the role of childhood trauma and adverse childhood experiences in understanding the SRT behavior identified.

Thematic Map

Figure 6 depicts the thematic map, which contains four quadrants. The positioning of the terms in the quadrants indicates their relevance in the research field. Basic themes which is the bottom right quadrant which contains terms including “male”, “female”, “adolescents”, “sexual behavior”, “young adults” middle-aged”. This indicates the themes are central to the SRT research area but have not been widely explored. Niche themes: the top left quadrant of the thematic map has terms like “high-risk behavior”, “HIV infections”, “unsafe sex”, “sexuality”, “condoms”. These themes are well developed even though these are not centrally connected to the SRT behavior. The motor themes and the emerging & declining themes are invisible. Generally, the top right quadrant is centralized well-developed themes, and the bottom left quadrant is non-centralized and less dense themes which indicates the emergence of new topics that gain attraction still to develop in a full fledge to exhibit in the SRT literature.

DISCUSSION AND RECOMMENDATIONS

The bibliometric analysis can be used to understand the overall picture of the SRT literature and the varying

factors that evolved in the field of study. This helps to evaluate the prevention strategies for reducing sexual risk-taking by analyzing the role of different factors and their impact on public health. Using this data, the research on SRT can be done efficiently and effectively by focussing on the unexplored but vital factors in the development and increase in SRT.

Researchers gain information regarding the popularity of various topics in SRT literature and how many aspects remain to be explored. The data also gives an idea of the current model of SRT and its connection to HIV and other STIs. This additionally helps the funding agencies and policymakers to gain insights into the necessity of the wide exploration of SRT to tackle the public health issue of HIV infections. The data identified a model focfocusing on the SRT behavior and HIV/AIDS,ussing the SRT behavior and HIV/AIDS indicating the stronger impact of SRT in the public health trajectories.

The data provide deeper insights into the epidemiology and frequency of SRT in various populations, especially the student population of different countries. The SRT behavior is a more culture-bound area that needs deeper exploration based on different cultural settings. This also helps to understand the role of various demographics in the SRT behavior in different populations. The majority of the research in the field focuses on Western countries, which highlights the need for research on SRT behavior in indigenous populations.

CONCLUSION

This bibliometric analysis shed light on the current status of SRT literature. Through this, we identified a clear picture of the research areas of SRT by uncovering the existing body of research articles. The focus of SRT literature has been on the major public health issue of HIV and other STIs, which indicates the exploration gap of other psychosocial impacts of SRT behavior. The understanding of the geographical focus of SRT literature indicates the gap in research on the indigenous population.

ETHICAL APPROVAL

As this is a review article, ethical approval was not required, as no primary data involving human or animal subjects were collected or analyzed.

COMPETING INTERESTS

The authors declare that they have no competing interests.

FUNDING

The authors declare that no funding was received for this research.

ACKNOWLEDGMENTS

The authors have no acknowledgments to make.

REFERENCES

1. L. Furby and R. Beyth-Marom, "Risk taking in adolescence: A decision-making perspective," *Developmental Review*, vol. 12, no. 1, p. 1–44., 1992.
2. T. Willoughby, T. Heffer, M. Good and C. Magnacca, "Is adolescence a time of heightened risk taking? An overview of types of risk-taking behaviors across age groups," *Developmental Review*, vol. 61, p. 100980, 2021.
3. D. Romer, V. F. Reyna and T. D. Satterthwaite, "Beyond stereotypes of adolescent risk taking: Placing the adolescent brain in developmental context.," *Developmental Cognitive Neuroscience*, vol. 27, p. 19–34, 2017.
4. D. Jepsen, K. V. Healy, M. Bernard, J. Markert and P. J. Brzank, "Patterns of Sexual Risk Behaviors and Sexuality-Related Risk Factors among Young Adults in Germany: Implications for Prevention and Therapy.," *Archives of Sexual Behavior*, vol. 53, no. 7, p. 26, 2024.
5. J. Turchik and J. Garske, "Measurement of Sexual Risk Taking Among College Students.," *Archives of Sexual Behavior*, vol. 38, p. 936–948, 2008.
6. S. Sivaram, S. Johnson and M. Bentley, "Sexual health promotion in Chennai, India: Key role of communication among social networks," *Heal Promot Int.,* vol. 20, no. 4, p. 327–333, 2005.
7. R. Chandiramani, "Talking about sex," *Reprod Health Matters*, vol. 6, p. 76–86, 1998.
8. N. Joglekar, S. Joshi, S. Navlakha, U. Katti and S. Mehendale, "Acceptability of Praneem polyherbal vaginal tablet among HIVuninfected women and their male partners in Pune India—Phase study," *Indian J Med Res*, vol. 123, p. 547–552., 2006.
9. M. Decker, G. Seage and D. Hemenway, "Intimate partner violence functions as both a risk marker and risk factor for women's HIV infection: Findings from Indian husband–wife dyad.," *JAcquir Immune Defic Syndr.*, vol. 51, p. 593–600, 2009.
10. D. Jones, R. Bagga, R. Nehra, S. S. Deepika, K. Walia, M. Kumar, O. Villar-Loubet, M. Lopez and S. Weiss, "Reducing Sexual Risk Behavior Among High-Risk Couples in Northern India," *International Journal of Behavioral Medicine*, vol. 20, 2012.

11. D. Morrison-Beedy, M. P. Carey, C. Feng and X. M. Tu, "Predicting sexual risk behaviors among adolescent and young women using a prospective diary method.," *Research in Nursing & Health*, vol. 31, no. 4, p. 329–340, 2008.
12. A. Haley, Perception of Power Dynamics and Risky Sexual Behavior in Indian Men, Virginia: Commonwealth University., 2009.
13. M. Falagas, E. Pitsouni, G. Malietzis and G. Pappas, "Comparison of PubMed, Scopus, web of science, and Google scholar: Strengths and weaknesses," *FASEB J.*, vol. 22, no. 2, p. 338–342, 2008.