

Sexual Deviation Factors in HIV Men Who Have Sex With Men (MSM)

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Abstract

This behavior is deviant sexual behavior because it appears based on deviant sexual orientation, causing a person's tendency to direct his feelings of attraction, emotional and sexual, to men. The problem of homosexual deviant sexual behavior has no end to be discussed. This problem is a sensitive issue involving social, cultural, moral, and ethical aspects of society and rules in religion. However, it can still be found in MSM groups who are HIV positive and who are still actively carrying out risky activities whose impact will expand and increase the prevalence of HIV cases, especially in the MSM group. This study contributes to analyzing the factors of sexual deviation in the HIV MSM group. The study used descriptive research. The population in this study was 56 groups of sex men with HIV men who were still actively engaging in sexual activities. Sampling using the technique Non-Probability Sampling with total type sampling is 56 respondents. The research instrument used a questionnaire. Data were analyzed by calculating the highest number of frequencies on the questionnaire (Frequency Distribution). The results show that of the five factors underlying the HIV MSM group who are still carrying out risk activities were categorized as having sufficient knowledge (62.5%), having an addiction (60.7%), economic factors (60.7%), having enough influence from peers (58.9%), influenced by authoritarian and permissive parenting styles (32.1%) and spiritual factors (48.2%). Sufficient knowledge factors are the most influential factors in sexual deviations that occur primarily in the HIV MSM group who are respondents, so it is expected to be able to focus more on prevention programs on the factors affecting the group. It is recommended to create a new program to reduce the impact of sexually deviant behavior on HIV MSM groups. Such as making an effective activity program (which can generate money) as a filler in spare time and a substitute for these sexual deviation activities. Psychological and spiritual approach program (Spiritual and Mental Health Awareness) where this program aims to improve spiritual (closeness to God) and also psychological so as not to have risky tendencies.

Keywords: Man Who Has Sex With Man (MSM); HIV; Sexual Deviations

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1. Introduction

Men having sex with men (MSM) is the sexual behavior of men who have intercourse with fellow men. The motivation is to be involved in having sex with specific communities. Homosexuality tends to engage in sexual attraction involving emotional and romantic with the same sex or sexual activity carried out by a man with men (Nurjianti et al., 2019). This behavior is deviant sexual behavior because it arises based on unnatural sexual orientation, causing a person's tendency to direct his feelings of attraction, emotional and sexual, to men (Ahmad et al., 2022). The problem of homosexual deviant sexual behavior has no end to be discussed and discussed; this problem is a

sensitive issue involving social, cultural, moral, and ethical aspects in society and rules in religion.

It is reported that the cumulative number of HIV infections until December 2017 was 48.300 cases in all provinces in Indonesia. West Java Province has the third-highest number of people living with HIV/AIDS nationally, where the number of people living with HIV/AIDS increases yearly. In recent years, the increase has occurred among young MSM (Men who have sex with Men). Perceptions about open behavior for sexual partners, open to other than sexual partners, are other factors that underlie a person's risk of contracting HIV (Rukmi, D et al., 2020).

Based on the Ministry of Public Health estimation, there were 866.840 MSM in 2016. The

number of HIV-positive MSM is 10.628 people. Based on the Ministry of Public Health of the Republic of Indonesia report, The increasing global HIV prevalence is currently dominated by crucial populations. Key populations, including MSM, are 22 times more likely to be infected by HIV / AIDS than other populations. MSM, often known as men who have sex with men, is a term used to describe the sexual behaviour of 2 or more men who have sex without considering sexual orientation and gender identity (Rahim et al., 2021).

The epidemiology of HIV in the USA, in the classic dimensions of person, place, and time, illustrates an epidemic built on historical and social injustices. The epidemic grew due to disparate access to resources for HIV prevention, care, and treatment. In the more than 40 years since the beginning of the HIV epidemic in the USA, more than 700 000 people have died from AIDS. Black people, representing 13% of the US population, have accounted for 41% of AIDS deaths. (Sullivan et al., 2021). While the data obtained from the Caring Community for People with HIV/AIDS (Kompeda) were 274 MSM recorded in June 2019, and 139 MSM were HIV positive. Activities to prevent transmission and spread of HIV/AIDS such as counseling on HIV/AIDS, counseling, and VCT. However, data is still available for 56 MSM with HIV status in the community. Kompeda still carries out activities at risk of being infected with HIV/AIDS for various reasons.

MSM is influenced by several factors, namely internal factors and external factors. Factors that cause MSM with positive HIV status to continue to engage in sexually deviant behavior include internal factors, including feelings of addiction and feelings of revenge because of sexual violence they have experienced (McMahon, 2022). Internal factors are factors that come from within the individual and can affect the individual himself. Internal factors are divided into two sub-factors, namely addiction (Addiction) and feelings of revenge because of sexual violence that has been experienced. Addiction (opium) arises because you feel happy after having sexual intercourse. Meanwhile, he feeling of revenge and disappointment with the status he currently has, so he has a sense of transmitting the virus he has to others (Hickson et al., 2020).

The Spiritual factors are also part of the internal factors. The Spiritual factor is the relationship between humans and the almighty God or the creator. Each individual's spirituality is influenced by culture, development, life experiences, beliefs, and ideas about life (Murgia et al., 2020). Spiritual factors, namely individual closeness to God, lack of knowledge about HIV prevention and transmission, environmental factors include parenting factors, peer influence, and the role of the surrounding

environment, and the last factor is economic factors (Mugo, 2022).

The economic factor is part of the external factors, which is the position of a person in a community group determined by the type of economic activity, education, and income. The consumptive nature is one of the main reasons for meeting daily needs. Someone will do any work to meet their needs, even fulfilling them, by becoming a sex worker and continuing to have sexual relations at risk of sexual deviance even though they already know the impact (Santos et al., 2021).

Based on the results of the discussion above, it can be concluded that one of the risk groups for HIV/AIDS infection is the MSM group, and there are still many MSM who continue to carry out activities at risk of HIV infection or HIV infection with various factors (Hieu et al., 2021). According to the report on the development of HIV/AIDS and Sexually Transmitted Infections (STI) of the Ministry of Health of the Republic of Indonesia in 2018, it states that the number of HIV cases is increasing every year, which will also have an impact on the prevalence of AIDS cases.

The government, through the HIV/AIDS Commission, has planned the National Strategy and Action Plan (SRAN) for HIV and AIDS Prevention in Indonesia with the "4 Main Strategies" program, namely Comprehensive Prevention, Continuum of Care (CoC), Key Populations, and Priority Areas. Meanwhile, the Ministry of Health of the Republic of Indonesia, through the Department of Communicable Disease Control and Prevention (P2PM), is making efforts to minimize the number of key populations by increasing HIV/AIDS case detection in risk groups by increasing health service facilities that can carry out HIV tests, through Training of Trainer (ToT) and training for health workers, strengthening networks and referrals to health services, increasing therapy deliver antiretroviral (ARV), expanding the criteria for starting ARV therapy. Most new HIV infections, MTCTs, and AIDS-related deaths occurred in countries with an HIV prevalence rate below 4.5%. Many of these countries are not targeted by access programs, such as the President's Emergency Plan for AIDS Relief. More intensive programs of diagnosis and treatment are needed in these countries in an effort to reduce global new HIV infections below 500.000 per year by 2020 (Kempton et al., 2019).

This study contributes to preventing an increase in the incidence of HIV MSM by setting programs according to the factors that influence the incidence of MSM. It is hoped that the results of this research will have an impact on science, especially in the field of health and in the field of research, so that ways to overcome these problems can be found.

2. Method

The type of research used in this research is descriptive, namely, the type of observational research conducted by giving a questionnaire and giving a score without any treatment or intervention. This study aims to analyze the factors of sexual deviation: men having sex with men (MSM) HIV at Kompeda Surabaya, Indonesia. The population in this study was a group of men who have sex with men (MSM) who are HIV positive in the Community Care for People with HIV/AIDS (Kompeda) in Surabaya, Indonesia, consisting of 56 MSM with HIV and used as the total sample. The inclusion criteria include the group of men who have sex with men (MSM) who are infected with HIV and are still active in sexual activity, willing to be respondents in the study, and able to speak, read and write. Exclusion criteria included respondents who could not be contacted during the study, respondents who were sick before or during the study, and who were not willing to be respondents.

The sampling technique in this study uses the technique of Non-probability Sampling. The sampling technique does not provide equal opportunities for each member of the population, with the aim of generalizing, originating at the same probability, with the total type sampling, namely the method of sampling by taking all members of the population as samples. The questionnaire used in this study is a closed-ended question using the Guttman scale. The questionnaire used was a questionnaire self-made by the researcher based on the concept of the literature and passed the validity and reliability tests.

The data collection process after the researcher received a certificate of ethical eligibility from the ethics committee with the number 056/EC/KEPK/UNUSA/2020. Questionnaires were distributed to respondents according to the respondent's VCT (voluntary counseling and testing) schedule and carried out in the VCT room. Complete data collection for four days.

Statistic analysis of this research with Non-Parametric Analysis by calculating the highest number of frequencies in the questionnaire (Frequency Distribution). The data obtained from the questionnaire are presented in a frequency distribution table and explained descriptively.

3. Results and Discussion

Specific research data describes the characteristics of respondents based on factors of sexual deviance in HIV Men Sex with Men (MSM), including addiction, resentment, spiritual factors, knowledge factors, parenting factors, the influence of friends and peers, and economic factors. Based on Table 1 shows that of the 56 respondents on internal factors (addiction), as many as 34

respondents (60.7%) have a sense of addiction to their deviant sexual activities, so they continue to have sexual activities even though they are HIV positive.

Addiction to sexual intercourse in the MSM group appears because they feel happy, satisfied, passionate, and even happy after having sexual intercourse with their partners. It can be influenced by an attraction based on orientation or even based on gender. This interest can be influenced by the development of biological factors such as hormones or chromosomes in a person's body (Evers et al., 2020). This is supported by the results of research regarding the factors that influence sexual orientation in adolescents. One of the factors that influence sexual orientation is biological factors such as hormone development and chromosomes that develop in a person's body (Wang et al., 2019). In general, the male hormone is progesterone, and in women, it is estrogen, but sometimes cases can be found in a woman's body where there is more progesterone hormone so that during development, it affects the physique, character, behavior, orientation, even gender (Bakker, 2022).

Table 1. Factors of addiction to sexually deviant behavior

No	Internal Factors: Addiction	Frequency (n)	Presentase (%)
1	There is Addiction	34	60.7
2	Not Addicted	22	39.3
	Total	56	100

From the perspective of addiction, having same-sex sexual relations can result in a person being easily infected with viruses, either STIs (Sexually Transmitted Infections) or the HIV virus. This can happen because of the possibility that someone prefers not to use condoms or other protection when having sexual intercourse, both anal and oral, as self-protection from disease transmission. This is supported by the research results of Joel M. Palefsky et al. (2017). One of the points is the addiction factor, where the addiction factor can be a way for a person to be easier and at risk of contracting or transmitting STIs or HIV. Gay men often have sexual intercourse and have characteristics leading to a feeling of addiction (Addiction) (Chawla & Sarkar, 2019). With a tendency to have sexual intercourse many times with one partner or can change partners and have sexual intercourse on average 3 to 5 times a day. As a result, these respondents could not stop or give up sexual activity. In fact, as many as 60.3% of the 78.6% of respondents had HIV status because they had never used protective equipment

and also did not screen their body condition during sexual intercourse (Zhang et al., 2019).

Based on Table 2, it shows that of the 56 respondents on the internal factor (resentment), 38 respondents (67.9%) were categorized as not having resentment as a reason for transmitting the HIV virus to others. Revenge is one of those intense feelings that arise in every human being. Instead of helping us to recover from revenge, scientific studies say revenge actually keeps us unhappy. Research on revenge studies suggests that the revenge picture is a bit more complicated. Not just a feeling of satisfaction after we take revenge on others. However, when we take revenge on others, the fact is that someone often feels worse afterward, even though, at that time, we think we will feel better.

Table 2. Factors of resentment towards sexual deviant behavior

No	Internal Factors: Revenge	Frequency (n)	Presentase (%)
1	There is a sense of revenge	18	32.1
2	No Revenge	38	67.9
	Total	56	100

The findings above are in accordance with the research of Yulrina Ardhayati's research (2019) from 8 respondents who were interviewed regarding the factors that cause PLHIV/PLWHA patients to have the desire to transmit HIV, one of which is because of a feeling of revenge and a feeling of wanting to transmit the virus or what they experience to others. Of the eight respondents studied, three respondents had a feeling of wanting to transmit the HIV virus to others, and 2 of them wanted other people to feel what they are feeling right now. Revenge, in this context, is a form of desire to transmit the disease or what it feels to other people. This arises when someone is in the zone of Denial and Depression so that it appears within him to share his feelings or experiences that he is currently experiencing or transmit the HIV virus to others. Most of the people who are carriers of the virus have common feelings when they are informed about their seropositivity. Among them, we found disappointment, sadness, fear, despair, lack of awareness, and pain. Sometimes, the diagnosis might lead to depression and social isolation. Social culture and environment are determining factors regarding the acceptance of the diagnosis (Arias-Colmenero et al., 2020)

Based on Table 3 shows that out of 56 respondents, 27 respondents (48.2%) had less spirituality, which affected the MSM group in viewing sexual behavior from a spiritual angle, so

they felt there was no problem in continuing to carry out these activities. Spirituality is a desire and capacity within a person or a potential within humans to find meaning and purpose in life. Spirituality can be influenced by habits that exist in one's environment, so it is necessary to strengthen one's spiritual level so that one does not fall into behavior or actions that are not in accordance with religion and other norms (Tirri, 2023).

Research on spiritual descriptions of well-being on homosexuals based on the customary vows of based yarak based Kitabullah it is found that someone who has spiritual well-being is a level of well-being indicated by positive feelings, behaviors, and thoughts regarding relationships with oneself, others, transcendentals, and nature. The prevalence of low psychological well-being was approximately six times greater among MSM who did not comply or could not comply with the social isolation measures, reinforcing the hypothesis that even though the individuals may not comply with social distancing measures to seek interactions, exposure still may cause concerns (Camargo et al., 2021). This will cause a person to feel and find his identity, wholeness, satisfaction, and pleasure that contains appreciation, love, a positive attitude, peace and harmony, and a purpose in life. Someone with spiritual well-being that is high will be related to morality and culture so that it becomes a driving force for the soul that is in him. However, in the homosexual group, as many as 87 respondents had different views regarding love, identity, and transcendence.

Table 3. Spiritual factors on sexually deviant behavior

No	Spiritual Factors	Frequency (n)	Presentase (%)
1	Spiritual Good	7	12.5
2	Spiritual Enough	22	39.3
3	Less Spiritual	27	48.2
Total		56	100

Table 4 shows that out of 56 respondents, 35 respondents (62.5%) had sufficient knowledge in terms of HIV prevention and transmission in the MSM group, especially those with HIV-positive status. A lack of knowledge regarding the impact and risks of someone having same-sex intercourse can make a person infected with the HIV virus and even transmit the virus to other people. There were several misconceptions arising from poor HIV prevention knowledge. Strategies are reliant on communication and negotiation with sexual partners were inhibited by gendered-powered imbalances. This is due to the lack of information available about HIV/AIDS and its spread.

Table 4. Knowledge factor on sexually deviant behavior

No	Knowledge Factor	Frequency (n)	Presentase (%)
1	Good Knowledge	13	23.2
2	Enough Knowledge	35	62.5
3	Lack of Knowledge	8	14.3
Total		56	100

According to the result of research Nakiganda, understandings of HIV risk and risk practices were framed by lack of access to condoms, challenges negotiating condom and pre-exposure prophylaxis (PrEP) use, and condomless sex being reported as more pleasurable than sex with condoms. Strategies men perceived as enabling them to manage HIV risk included: PrEP use; condom use; knowing partners' HIV status; avoiding partners associated with HIV risk; oral sex; withdrawal before ejaculation, and washing one's penis after sex (Nakiganda et al., 2021).

Table 5 shows that out of 56 respondents, 18 respondents (32.1%) received permissive parenting styles, and 18 respondents (32.1%) received authoritarian parenting styles. Based on the results of the study, most parenting styles were permissive and authoritarian. Authoritarian, this is because parents never give explanations that are clear and understandable to children, so curiosity and curiosity arise. The authoritarian model usually does not give the child the opportunity to dig deeper into information so that the child's curiosity arises, and in the end, the child finds out the information he wants to find himself. This type of parent tends to force, rule, punish, and not establish a close relationship with the children. Parents of this type do not know the compromise and have one-way communication.

Table 5. Parenting factors for sexually deviant behavior

No	Environmental factor : Parenting Style	Frequency (n)	Presentase (%)
1	Democratic Parenting	12	21.4
2	Permissive Parenting	18	32.1
3	Authoritarian Parenting	18	32.1
4	Mixed Parenting	8	14.3
Total		56	100

Children who are raised with this kind of parenting style tend to seek attention and freedom that has not been obtained from their parents. This has become a powerful trigger factor in the formation of deviant sexual behaviour, including

homosexual behavior. It can be concluded that the form of parenting pattern of abandonment, authoritarian and permissive parents to informants is a strong factor in the formation of their sexual orientation to be gay (Romlah et al., 2020).

Based on Table 6 shows that out of 56 respondents, 33 respondents (58.9%) were categorized as having enough influence from peers on sexually deviant behavior in respondents. This is due to the influence of peers who are still active in same-sex sexual activities, and there is no support from peers to stop doing these activities.

Table 6. Peer influence factors on sexually deviant behavior

No	Environmental factor: Peer Influence	Frequency (n)	Presentase (%)
1	Very influential	3	5.4
2	Influential Enough	33	58.9
3	Little Impact	19	33.9
4	No effect	1	1.8
Total		56	100

The role of peers is very significant in obtaining information that will influence a person's attitudes and behavior, including on the issue of sexuality. There are fears many, including parents, teachers, educators, religious leaders, and community leaders, that if information and sex education are given to children, they will be misused by adolescents so that children prefer to ask their peers who are not better informed and do not receive responsible sex education. Teenagers receive wrong and even misleading information, for example from friends' stories, watching pornographic films or videos, television shows, reading books, magazines that present more vulgar sex than true sexual education knowledge.

Peer influence is an essential factor in adolescent risk-taking behavior; adolescents are more likely to be involved in such kinds of dangerous behavior when they are with their peers rather than when they are alone. Adolescents are more engaged in risky activities such as smoking, drug use, reckless driving, etc., for the sake of social acceptance and social conformity. Several possible explanations describe the association between deviant peer association or the presence of peers and the risk-taking behavior of adolescents (Siraj et al., 2021).

Based on the results of research regarding the influence of peers on adolescent sexual behavior, it was found that friends or peers had an influence on adolescent sexual behavior, where the research results found there was a significant relationship. Negative peer influence has a heavy sexual behavior of as much as 90%, while positive peer influence has an impact of heavy sexual behavior of

as much as 10%. Forms of negative peer influence such as promiscuity, courtship styles, and attitudes.

Based on Table 7 shows an analysis of economic factors from 56 respondents in the MSM HIV group. As many as 34 respondents (60.7%) made the sexual activity a permanent job to fulfill their daily needs either for themselves or to meet the needs of their families. Economic status can affect what a person does. In some criminal case data, it is based on low economic status. Someone in a condition unemployed, poorly educated (low education), and economically deprived (loss of sources of livelihood) coupled with urgent or non-urgent needs can be a reason someone to do any work to meet these needs (Santos et al., 2021).

Table 7. Economic influence factors on sexually deviant behavior

No	Economic Factors	Frequency (n)	Presentase (%)
1	Permanent work	34	60.7
2	Not a Job	22	39.3
	Total	56	100

Strengthened by the results study regarding the prevalence of sex workers based on social and economic status, the results showed that sex workers who are homeless, use drugs, or are migrants with insecure legal or residency status face greater challenges in accessing health services or financial relief, which increases their vulnerability to poor health outcomes and longer-term negative economic impacts (Platt et al., 2020).

4. Conclusions and Suggestions

Based on the results of the research analysis and discussion, it can be concluded that the factors of sexual deviance that have the most influence on the 56 HIV-positive MSM respondents are sequential, 35 respondents (62.5%) had sufficient knowledge in understanding the context of HIV transmission and prevention in their environment, 34 respondents (60.7%) were categorized as having an addiction, so they continued to have sexual intercourse, 34 respondents (60.7%) based on economic factors made the sexual activity a job to fulfill their daily needs, 33 respondents (58.9%) were categorized as having enough influence from peers in their sexually deviant behaviour, 18 respondents (32.1%) were influenced by parenting styles, namely authoritarian and permissive in sexually deviant behaviour and 27 respondents (48.2%) in spiritual factors were categorized as having less spirituality, closeness to God Spiritually, this made the HIV MSM group continue to engage in deviant sexual activities.

The suggestions are creating a new program to reduce the impact of sexually deviant behavior on HIV MSM groups. Such as making a productive

activity program (which can generate money) as a filler in spare time and a substitute for these sexual deviation activities. Psychological and spiritual approach program (Spiritual and Mental Health Awareness) where this program aims to improve spiritual (closeness to God) and also psychological so as not to have a tendency to remain at risk.

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6. References

- Ahmad, R., Tahir, L. M., Yusoff, N., Hisham, H. T., & Marsinun, R. (2022). Development Of Sexual Orientation Scale. A Study On Gay And Lesbian Behaviour From Malaysian Perspective. *Journal of Pharmaceutical Negative Results*, 5286–5296. <https://www.pnrjournal.com/index.php/home/article/view/4618>.
- Arias-Colmenero, T., Pérez-Morente, M. Á., Ramos-Morcillo, A. J., Capilla-Díaz, C., Ruzafa-Martínez, M., & Hueso-Montoro, C. (2020). Experiences and attitudes of people with HIV/AIDS: A systematic review of qualitative studies. *International Journal of Environmental Research and Public Health*, 17(2), 639. <https://doi.org/10.3390/ijerph17020639>.
- Bakker, J. (2022). The role of steroid hormones in the sexual differentiation of the human brain. *Journal of Neuroendocrinology*, 34(2), e13050. <https://doi.org/10.1111/jne.13050>.
- Camargo, E. L. S., de Oliveira, B. I. A., Siffoni, I. F., de Sousa, A. R., Teixeira, J. R. B., Mendes, I. A. C., & de Sousa, Á. F. L. (2021). Low psychological well-being in men who have sex with men (MSM) during the shelter-in-place orders to prevent the COVID-19 spread: Results from a nationwide study. *Sexuality Research and Social Policy*, 1–10. <https://doi.org/10.1007/s13178-021-00550-5>.
- Chawla, N., & Sarkar, S. (2019). Defining "high-risk sexual behavior" in the context of substance use. *Journal of Psychosexual Health*, 1(1), 26–31. <https://doi.org/10.1177/2631831818822015>.
- Evers, Y. J., Hoebe, C. J. P. A., Dukers-Muijters, N. H. T. M., Kampman, C. J. G., Kuizenga-

- Wessel, S., Shilue, D., Bakker, N. C. M., Schamp, S. M. A. A., Van Buel, H., & Van Der Meijden, W. (2020). Sexual, addiction and mental health care needs among men who have sex with men practicing chemsex—a cross-sectional study in the Netherlands. *Preventive Medicine Reports*, 18, 101074. <https://doi.org/10.1016/j.pmedr.2020.101074>
- Hickson, F., Appenroth, M., Koppe, U., Schmidt, A. J., Reid, D., & Weatherburn, P. (2020). Sexual and mental health inequalities across gender identity and sex-assigned-at-birth among men-who-have-sex-with-men in Europe: findings from EMIS-2017. *International Journal of Environmental Research and Public Health*, 17(20), 7379. <https://doi.org/10.3390/ijerph17207379>
- Hieu, D. P., Tuan, N. M., Anh, P. M., & Van Vinh, H. (2021). High Risk Behaviors On Hiv/Aids Infection Among Man Having Sex With Man (Msm) In Thai Nguyen City, 2020. *Tạp Chí Y Học Cộng Đồng*, 62(4 (2021)). <https://doi.org/10.52163/jcm.v62i4.118>
- Kempton, J., Hill, A., Levi, J. A., Heath, K., & Pozniak, A. (2019). Most new HIV infections, vertical transmissions and AIDS-related deaths occur in lower-prevalence countries. *Journal of Virus Eradication*, 5(2), 92–101. [https://doi.org/10.1016/S2055-6640\(20\)30058-3](https://doi.org/10.1016/S2055-6640(20)30058-3)
- McMahon, L. (2022). *'It's a people problem': the invisibility of male same-sex domestic violence and abuse in the UK* (Doctoral dissertation, University of Sheffield). <https://etheses.whiterose.ac.uk/31039/>
- Mugo, P. K. (2022). *Perceptions of HIV Testing Among African-Born Immigrants in Washington State*. Walden University. <https://www.proquest.com/openview/488f25ca48d3a55ee95ce465ce70955c/1?>
- Murgia, C., Notarnicola, I., Rocco, G., & Stievano, A. (2020). Spirituality in nursing: A concept analysis. *Nursing Ethics*, 27(5), 1327–1343. <https://doi.org/10.1177/0969733020909534>
- Nakiganda, L. J., Bell, S., Grulich, A. E., Serwadda, D., Nakubulwa, R., Poynten, I. M., & Bavinton, B. R. (2021). Understanding and managing HIV infection risk among men who have sex with men in rural Uganda: a qualitative study. *BMC Public Health*, 21, 1–9. <https://doi.org/10.1186/s12889-021-11365-9>
- Nurjianti, S., Mirna, M., Asrina, A., & Arman, A. (2019). Determinant Factors Of Sexual Orientation In Young-Gay, Shemale, Men Who Sex With Men (MSM) In Makassar City. *Urban Health*, 2(1). <https://journal.poltekkes-mks.ac.id/ojs2/index.php/Prosiding/article/view/1180>
- Platt, L., Elmes, J., Stevenson, L., Holt, V., Rolles, S., & Stuart, R. (2020). Sex workers must not be forgotten in the COVID-19 response. *The Lancet*, 396(10243), 9–11. [https://doi.org/10.1016/S0140-6736\(20\)31033-3](https://doi.org/10.1016/S0140-6736(20)31033-3)
- Rahim, N. K., Waluyo, A., & Yona, S. (2021). The relationship between self-efficacy and spirituality in condom use behaviour among MSM-PLWHA in Bandung, indonesia. *Journal of Public Health Research*, 10(1_suppl), jphr-2021. <https://doi.org/10.4081/jphr.2021.2339>
- Romlah, S. N., Pratiwi, R. D., Indah, F. P. S., & Umanailo, M. C. B. (2020). Qualitative study factors triggering gay characteristics in gay groups in Palmerah District West Jakarta. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 2535–2540. <https://www.researchgate.net/publication/340514412>
- Rukmi, D., Sari, I., & Lutfiyati, A. (2020). Characteristic of Reproductive Age Women Living With HIV/AIDS in Victory Plus Foundation, Yogyakarta, Indonesia. *Jurnal Keperawatan Respati Yogyakarta*, 7(2), 80–86. <http://dx.doi.org/10.35842/jkry.v7i2.467>
- Santos, G.-M., Ackerman, B., Rao, A., Wallach, S., Ayala, G., Lamontage, E., Garner, A., Holloway, I. W., Arreola, S., & Silenzio, V. (2021). Economic, mental health, HIV prevention and HIV treatment impacts of COVID-19 and the COVID-19 response on a global sample of cisgender gay men and other men who have sex with men. *AIDS and Behavior*, 25, 311–321. <https://doi.org/10.1007/s10461-020-02969-0>
- Siraj, R., Najam, B., & Ghazal, S. (2021). Sensation seeking, peer influence, and risk-taking behavior in adolescents. *Education Research International*, 2021, 1–8. <https://doi.org/10.1155/2021/8403024>
- Sullivan, P. S., Johnson, A. S., Pembleton, E. S., Stephenson, R., Justice, A. C., Althoff, K. N., Bradley, H., Castel, A. D., Oster, A. M., & Rosenberg, E. S. (2021). Epidemiology of HIV in the USA: epidemic burden, inequities, contexts, and responses. *The Lancet*, 397(10279), 1095–1106. [https://doi.org/10.1016/S0140-6736\(21\)00395-0](https://doi.org/10.1016/S0140-6736(21)00395-0)
- Tirri, K. (2023). Spirituality and giftedness. *Gifted Education International*, 39(1), 73–79. <https://doi.org/10.1177/02614294221129394>

- Wang, Y., Wu, H., & Sun, Z. S. (2019). The biological basis of sexual orientation: How hormonal, genetic, and environmental factors influence to whom we are sexually attracted. *Frontiers in Neuroendocrinology*, 55, 100798. <https://doi.org/10.1016/j.yfrne.2019.100798>.
- Zhang, Y., Wu, G., Lu, R., Xia, W., Hu, L., Xiong, Y., Xie, J., Yu, Q., & Ye, M. (2019). What has changed HIV and syphilis infection among men who have sex with men (MSM) in Southwest China: a comparison of prevalence and behavioural characteristics (2013–2017). *BMC Public Health*, 19(1), 1–11. <https://doi.org/10.1186/s12889-019-7730-0>.