Received: 11 November, 2024 Accepted: 21 December, 2024 Published: 11 January, 2025 ISSN: 3007-1208 | 3007-1216 Volume 3, Issue 1, 2025

### ASSESSMENT OF STIGMA ASSOCIATED WITH HIV/AIDS

Dr Abia Nazim<sup>\*1</sup>, Dr. Uzma Ashiq<sup>2</sup>, Maj. Syeda Masooma Kazmi<sup>3</sup>, Dr. Sarah Shahed<sup>4</sup>, Dr. Kiran Ishfaq<sup>5</sup>, Dr. Ivan Suneel<sup>6</sup>

 \*1Associate Professor, Department of Psychology Forman Christian College University Lahore <sup>2</sup>Assistant Professor, Department of Psychology Forman Christian College University Lahore <sup>3</sup>Psychologist, Pakistan Army
<sup>4.6</sup>Professor, Department of Psychology Forman Christian College University Lahore <sup>5</sup>Principal Clinical Psychologist, Jinnah Hospital Lahore

\*1abianazim@fccollege.edu.pk

Corresponding Author: \* DOI: <u>https://doi.org/10.5281/zenodo.14774033</u>

#### ABSTRACT

Despite the fact that Pakistan is considered a ticking time bomb of HIV/AIDS, the general population in the country still lacks basic information about HIV/AIDS and is rather surrounded by various myths and misconceptions. The lack of accurate information about HIV/AIDS contributes to the perpetuation of stigma. Misconceptions particularly about the modes of transmission and prevention fuel prejudice and fear, leading to the stigmatization of affected individuals and their families. The stigma not only affects the psychological well being but also hampers efforts to promote HIV/AIDS testing and treatment services. Present study employed cross sectional research design to explore the stigma associated with HIV/AIDS in general population in Lahore. None probability convenient sampling technique was used to collect data from 433 individuals. Majority lacked important information related to HIV/AIDS and revealed to have strong stigma against HIV/AIDS. The results also indicated different patterns of associations across age, gender, levels of HIV knowledge and interaction with a HIV/AIDS positive person. **Keywords:** HIV/AIDS; Lifestyle; Stigma; Discrimination

#### INTRODUCTION

HIV/AIDS has turned into a generalized epidemic affecting individuals from diverse backgrounds and demographics regardless of their age, gender, socioeconomic status, race, and religious background (Asrina et al., 2023). In 2022, Human immunodeficiency Virus (HIV) affected approximately 39.0 million people and remained a serious global health challenge with high mortality rates attached to it (Shrestha et al., 2024). With the advent of antiretroviral therapy (ART) and other treatment options available the quality of life of people living with HIV/AIDS has improved. However, the stigma and negative social attitudes that people with HIV/AIDS face is still high all over the globe. Even healthcare providers observed to have high rates of stigma against HIV/AIDS which results in health discrimination and negative attention for the people living with HIV/AIDS (Fauk et al., 2021; Langi et al., 2022; Nazim et al., 2021).

Past few decades have observed strikingly high increase in new cases of HIV/AIDS in Pakistan with poor blood screening facilities, poor safety protocols practiced at healthcare facilities, lack of knowledge of transmission modes of HIV/AIDS as the main causal factors fueling this fast spread (Ahmed et al., 2024). In 2021, Pakistan approximately had 210,000 people living with HIV which included 41,000 women and

170,000 men and 4600 were children below 15 years of age (Aizaz et al., 2023). Pakistan like many other countries is not free of stigma and discrimination against people living with HIV/AIDS (Nazim et al., 2021; Rana et al., 2023).

Stigma and discrimination surrounding HIV/AIDS significantly affect individuals living with HIV/AIDS, those vulnerable to HIV and their families. HIV related stigma serves as an important hindrance to voluntary HIV testing and counseling and thus undermines the efficacy of preventive and care services (Genberg et al., 2009).

HIV/AIDS related stigma is precisely characterized as the sense of shame or dishonor associated with the disease and manifested through adverse social responses towards individuals suffering by the virus. Social stigma related to HIV/AIDS deeply impact the psychosocial integrity of individuals living with HIV/AIDS and all those closely connected to them (Darlington & Hutson, 2017).

Despite a lot of awareness programs and campaigns, common public lack correct knowledge of HIV/AIDS contributing to high stigma and discrimination (Khan et al., 2019; Rai et al., 2007). The groups reported to be most vulnerable to HIV/AIDS are commercial sex worker, drug addicts, transgenders, homosexuals who are already susceptible to social discrimination (Mayhew et al., 2009); Pakistani society already holds a negative attitudes towards these groups which definitely fuel the social stigma. Another factor which making people with HIV/AIDS more susceptible to stigma and discrimination in Pakistan as mostly HIV/AIDS is associated with bad moral standards making it more likely to shape a strong negative attitude towards HIV/AIDS.

Previous studies have identified many personal, social and environmental factors contributing to the development of stigma against people with HIV/AIDS including age, gender, educational level, lack of information etc. (Deacon & Boulle, 2007; Dessie & Zewotir, 2024; Ncitakalo et al., 2021). Both women and men living with HIV are affected by stigma, but women remain more susceptible to both experiencing stigma and expressing stigma. Due to stereotypical gender expectations, women are also affected differently by this specific psychosocial component of HIV/AIDS (Colbert et al., 2014). Women usually experience stronger negative attitudes and more extensive HIV/AIDS related stigma than men (Asiedu et al., 2014).

Literature concerning the outcomes of stigma towards HIV/AIDS (Armoon et al., 2022) report various physical, social and psychological consequences of stigma including social rejection and withdrawal, depression, fear, anxiety, isolation, poor social adjustment, and poor cognitive and psychological functioning (Bogart et al., 2008;Steward et al., 2012). As Pakistan is struggling with high rates of HIV/AIDS cases, it seems relevant to study this area in detail along with the factors creating hindrance in preventive and treatment services. Therefore, the present study was designed in light of the literature reviewed to investigate the stigma associated with HIV/AIDS in general public and to identify significant demographic characteristics related with stigma against HIV/AIDS.

### **Materials and Method**

The present research was aimed to explore stigma of HIV/AIDS which adversely affects the quality of life and access to preventive and treatment services of HIV/AIDS. For this reason, cross sectional research design was employed to achieve the aims established

The non-probability convenience sampling technique was employed record data from 433 adults from Lahore. The age of the selected individuals was between 18 to 65 years with age of 27.53 (SD= 9.55) years and included both women and men.

### Instruments

The data were recorded using demographic sheet and HIV/AIDS Knowledge and Stigma Scale (Nazim, 2010). *Demographic sheet* was used to record detailed personal information of the participants from their age and gender to family systems .

*HIV/AIDS Knowledge and Stigma Scale* was developed by Nazim (2010) to assess knowledge and the stigma associated with HIV/AIDS. It was a self-report measure consisting of 2 sections and 82 items. Only section 2

of the scale which had 43 items was used, this section specifically assessed stigma associated with HIV/AIDS. The scale reported to have satisfactory to excellent psychometric properties from 0.86 - 0.93.

### Procedure

Study design and protocol was approved by the concerned ethical and research review boards after thorough review. The data was collected only after introducing the research objectives and seeking consent from the participants who were contacting at universities and healthcare facilities. All participants were provided a booklet presenting the research tools in same sequence, cover page containing the information about research and rights of the participants, information on data confidentiality and safety, demographic sheet and HIV/AIDS stigma scale followed by a brief note of thanks for participants. The data was collected individually. Special care was taken to keep the data anonymous and confidential. After initial coding the data sets were further processed for analysis using both descriptive and inferential statistical procedures.

#### Results

The data were analyzed through statistical package for social sciences and a range of statistical procedures were used to explore the data.

#### Table 1

Frequency and Percentage of Participant Characteristics

| Demographic Variab  | les F                          | Percentage         |
|---------------------|--------------------------------|--------------------|
| Gender              |                                |                    |
| Women               | 250                            | 58 %               |
| Men                 | 183                            | 42 %               |
| Relationship status |                                |                    |
| Single              | 206                            | 70 %               |
| Married             | 120                            | 28 %               |
| Separated           | 2                              | 0.5 %              |
| Divorced            | 3                              | 0.7 %              |
| Widowed             | 2                              | 0.5 %              |
| Age group           | 771                            |                    |
| 18-35               | The 348                        | 80 %               |
| 36 - 55             | Researc <sup>60</sup> of Medic | al Science 14% iew |
| 56 - 65             | 25                             | 6 %                |

Table 1 reveled that there were more women in the sample than men, with a large majority of students (50 percent), but also included healthcare professionals (n=33 percent), attorneys (n=7 percent), businessmen (n=5 percent) and unemployed (n=4 percent). A large majority of the sample comprised of those in early adulthood (80 percent), whereas only 6 percent were in late adulthood. For religion, 91 percent of the participants were following Islam and only 9 percent were Christianity. Only 27 percent claimed to have strong religious inclination to regularly perform religious rituals, 68 percent had little inclination, and 6 percent revealed no inclination at all. Majority of the participants were living in nuclear family system (n=253, 58 %) compared to joint family system (n=180, 42 %).

### Figure 1. Knowing someone with HIV/AIDS

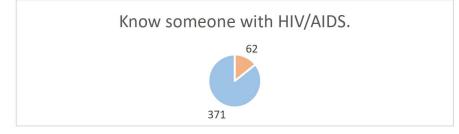


Figure 1 indicated that a large majority of the participants (86 percent) never had met anyone suffering from HIV/AIDS. Similarly, most of the participants responded as either having very little information (n = 266, 61%) or having no information (n = 27, 6%) about this health peril and some claimed having detailed information (n = 140, 32%) of HIV/AIDS.

### Table 2

| Variable                  | Mean  | SD   |  |
|---------------------------|-------|------|--|
| 1. Social Isolation       | 9.17  | 2.26 |  |
| 2. Marginalization        | 6.45  | 2.13 |  |
| 3. Labelling              | 5.41  | 1.94 |  |
| 4. Precaution & Rejection | 3.33  | 0.60 |  |
| 5. Total Stigma Score     | 28.94 | 6.86 |  |

The mean of overall stigma score was above the cutoff point revealing that most of the participants had stronger stigma against individuals with positive HIV/AIDS status. It was interesting to note that women held stronger stigma (M=28.11, SD=17.30) compared to men (M=25.95, SD=8.06).

### Table 3

Correlation of Dimensions of HIV/AIDS Stigma Score with Main Study Variables

| Stigma Dimensions     | Respondent's Age | Information | of Having Known |
|-----------------------|------------------|-------------|-----------------|
|                       |                  | HIV/AIDS    | HIV/AIDS        |
|                       |                  |             | Positive Person |
| Social Isolation      | 19*              | 30**        | 22*             |
| Marginalization       | 28**             | 23**        | 14*             |
| Labelling             | 27*              | 10          | 27              |
| Precaution/ Rejection | .20*             | .37**       | .33**           |
| Total stigma score    | 32**             | 27**        | 35**            |
|                       |                  |             |                 |

### \*\**p*<0.01, \**p*<0.05.

Age of the respondents observed to have inverse correlation only with stigma beliefs related to precaution and rejection, however, higher age was associated with stronger stigma particularly associated with social isolation, marginalization, negative labeling. On the other hand, having better knowledge about HIV/AIDS was found to be associated with lower stigma beliefs particularly associated with social isolation, marginalization and negative labeling, however, better knowledge about HIV was associated with higher stigma related to precaution and rejection of individuals with HIV/AIDS. Having had an interaction with someone with HIV/AIDS positive status was found to be associated with lower over stigma as well as lower stigma believes particularly related to social isolation, marginalization and negative HIV/AIDS status was observed to be associated with higher stigma believes related to precaution and rejection.

### Discussion

HIV/AIDS is a debilitating health condition that results in various social and personal challenges for people suffering it and their families (Ahmed et al., 2024). Despite these serious challenges, many HIV/AIDS positive people cope with these issues effectively and preserve their quality to life and psychological well being. Since the early recognition of HIV/AIDS as a serious and one of the most debilitating medical conditions, it has been surrounded by heavy myths, misinformation, negative social attitude and rejection (Monjok et al., 2009; Shrestha et al., 2024). Despite the continuous and rigorous efforts of the governmental and nongovernmental organizations, the impact of stigma on individuals living with HIV/AIDS is profound around the globe (Bharat, 2011; Gutiérrez et al., 2022). Stigmatized individuals often face barriers to accessing even necessary healthcare services due to fear of discrimination from people, other patients and even from healthcare providers. This can result in delayed diagnosis, poor treatment adherence, and

increased risk of transmission (Rueda et al., 2016). Additionally, stigma can lead to social isolation, mental health issues, and reduced quality of life for those affected by the virus (Drewes et al.,2020). Pakistan is a developing country with a weak healthcare system and strikingly high rates of HIV/AIDS positive individuals (Hussain et al., 2018) yet having a significant gap in research in this area. Therefore, present study was conceptualized to understand one of the imminent hurdles affecting not only the treatment access but also the quality of life of individuals already living with multiple health struggles.

The findings of the present study indicated that the stigma score of majority of the participants was above the cutoff point revealing strong stigma towards HIV/AIDS. There can be numerous factors leading to higher stigma in Pakistani population from lack of general education to linking HIV/AIDS with comprised moral standards and considering sexual relations as the only mode of HIV/AIDS transmission. As most of these factors have been identified as contributors to stigma and discrimination against people with HIV/AIDS in previous studies in Pakistan and outside (Ahmed et al.,2021; Nazim et al., 2021; Dessie & Zewotir, 2024).

The findings revealed that most of the participants lacked the information about HIV/AIDS, women showed higher stigma than men. Both these findings aligned with some of the previous researches (Letshwenyo-Maruatona et al., 2019). Some researches conducted in Pakistan earlier reported higher information of about HIV/AIDS in their sample. The differences might be due because of the differences in the sample. Most of the previous researches in Pakistan were conducted on healthcare professional or students of healthcare professions (Rana et al., 2023). The sample of the present study however, incorporated the representation from the general population and healthcare professions.

From personal factors, gender is described as one of the notable factors linked with variations in expression and experience of HIV/AIDS related stigma (Asiedu et al., 2014). Gender was observed to be associated with varying pattern of stigma in the present sample, women scored significantly higher than men. The literature in general provides mixed findings on gender differences in expression of stigma associated with HIV/AIDS (Bozkurt & Turan, 2020; Dessie & Zewotir, 2024; Nazim et al., 2021). One possibility of women having higher stigma can be that they usually are considered to be more likely to use fixed and stereotypical cognitive schemas and also use emotional focused strategies to deal with the difficult situations, this might have led to development of higher stigma.

In present study, the second personal factor associated with variations in stigma levels was age (Ahmed et al.,2021), older age was observed to be related to lower stigma on all dimensions except precaution and rejection. This finding aligns with findings reported previously (Srithanaviboonchai et al., 2017). With age comes maturity, better knowledge and better coping which must have helped individuals work on their biases resulted in lower stigma scores compared to younger individuals as was explained in other researches as well (Nazim et al., 2021; Feyasa et al., 2022).

Majority of the participants in the present research lacked basic information about HIV/AIDS which is supported by the findings of some of the previous studies (Khan & Bilal, 2019).

Pakistan is a developing country with a majority of the population living in rural areas, economic struggles, lower literacy rates and lacking access to modern means of communication likely to contribute to the lack of information about HIV/AIDS as was also reported in other countries (Dahlui et al., 2015; Saad et al., 2013). Lack of resources and limited access to good healthcare facilities and health related informational resources significantly affect the health information people attain related to different conditions. Interesting pattern of associations were noted between HIV/AIDS knowledge and stigma, better knowledge was associated with lower stigma believes in all but one dimension. The only stigma dimension which had inverse association with HIV/AIDS related knowledge was preauction and rejection. Perhaps the reason behind it was that individuals with better HIV/AIDS related knowledge were more careful and or cautious because of fear of contracting the condition. These findings aligned with the findings of other researches observing the same pattern of association particularly when fear of the illness resulted in higher stigma (Letshwenyo-Maruatona et al., 2019; Majeed et al., 2024; Shrestha et al., 2024).

Having had an interaction with HIV/AIDs positive status was observed to be another factor associated with stigma. Those who had known someone with HIV/AIDS positive status observed to have lower stigma scores on all but precaution and rejection dimension. This falls in line with the findings recorded in other

studies that sometimes stigmatized attitudes exist even in family members of the people living with HIV/AIDS primarily due to fear of contracting the virus (Bogart et al., 2008). Having known a person with positive HIV/AIDS might have made people acquire information about the condition which must have helped them to clarify their myths and consequently having less stigma. Sometimes knowing someone with a debilitating condition make people understand their struggles and also help them get familiar with the different aspects of the condition and increase their understanding of the condition (Shrestha et al., 2024).

#### **Conclusion:**

Stigma is an important factor affecting the lives of individuals living with HIV/AIDS. Personal variables, knowledge related to HIV/AIDS can play a pertinent role in developing stigmatized attitudes towards HIV/AIDS. Therefore, community based educational programs should focus on these variables in efforts to reduce the stigma against HIV/AIDS.

#### **REFERENCES:**

- Ahmed, A., Saqlain, M., Umair, M. M., Hashmi, F. K., Saeed, H., Amer, M., & Dujaili, J. A. (2021). Stigma, social support, illicit drug use, and other predictors of anxiety and depression among HIV/AIDS patients in Pakistan: a cross-sectional study. *Frontiers in Public Health*, 9, 745545.
- Ahmed, M., Nazim, A., & Athar, F. (2024). Assessment of perceived social support among people living with HIV/AIDS in Lahore. *Pakistan Biomedical Journal*, 7(02), 26-31.
- Ahmed, M., Nazim, A., Schwaiger, E., & Suneel, I. (2024). Exploring resilience and its correlates in HIV/AIDS positive people in Lahore. *International Review of Basic and Applied Sciences*, 12 (1), 1-10.
- Aizaz, M., Abbas, F. A., Abbas, A., Tabassum, S., & Obeagu, E. I. (2023). Alarming rise in HIV cases in Pakistan: Challenges and future recommendations at hand. *Health Science Reports*, 6(8), e1450. https://doi.org/10.1002/hsr2.1450
- Armoon, B., Fleury, MJ., Bayat, AH., Fakhri, Y., Higgs, P., Moghadam, F.L., & Gonabadi-Nezhad, L. (2022). HIV related stigma associated with social support, alcohol use disorders, depression, anxiety, and suicidal ideation among people living with HIV: a systematic review and meta-analysis. *International Journal of Mental Health Systems*, 16, 17 (2022). https://doi.org/10.1186/s13033-022-00527-w
- Asiedu, G. B., & Myers-Bowman, K. S. (2014). Gender Differences in the Experiences of HIV/AIDS-Related Stigma: A Qualitative Study in Ghana. *Health Care for Women International*, 35(7–9), 703– 727. https://doi.org/10.1080/07399332.2014.895367
- Asrina, A., Ikhtiar, M., Idris, F. P., Adam, A., & Alim, A. (2023). Community stigma and discrimination against the incidence of HIV and AIDS. *Journal of medicine and life*, 16(9), 1327–1334. https://doi.org/10.25122/jml-2023-0171
- Bharat, S. (2011). A systematic review of HIV/AIDS-related stigma and discrimination in India: current understanding and future needs. *SAHARA-J: Journal of Social Aspects of HIV/AIDS*, 8(3), 138-149.
- Bogart, L.M., Cowgill, B.O., Kennedy, D., Ryan, G., Murphy, D.A., Elijah, J., & Schuster, M.A. (2008). HIV related stigma among people with HIV and their families: A qualitative analysis. *AIDS and Behavior*, 12, 244–254.
- Bozkurt, O., & Turan, D.B. (2020). Evaluation of the knowledge and stigmatization levels of HIV/AIDS and related factors. *Journal of Psychiatric Nursing*, 11 (1), 41-48.
- Colbert, A. M., Kim, K. H., Sereika, S. M., & Erlen, J. A. (2010). An examination of the relationships among gender, health status, social support, and HIV-related stigma. *Journal of the Association of Nurses in AIDS Care*, 21 (4), 302-313.
- Dahlui, M., Azahar, N., Bulgiba, A., Zaki, R., Oche, O.M., Adekunjo, F.O., Adekunjo, F.O., & Chinna, K. (2015) HIV/AIDS Related Stigma and Discrimination against PLWHA in Nigerian Population. *PLoS ONE* 10(12),e0143749. https://doi.org/10.1371/journal.pone.0143749
- Darlington, C.K., & Hutson, S.P. (2017). Understanding HIV-related stigma among women in the southern United States: A literature review. *AIDS and Behavior*, *21*, 12–26.

- Deacon,H., Boulle,A. (2007). Commentary: Factors affecting HIV/AIDS-related stigma and discrimination by medical professionals, *International Journal of Epidemiology*, 36 (1), 185– 186. https://doi.org/10.1093/ije/dyl255
- Dessie, Z.G., & Zewotir, T. (2024).HIV related stigma and associated factors: a systematic review and meta analysis. *Frontiers in Public Health*, *12*. <u>https://doi.org/10.3389/fpubh.2024.1356430</u>
- Drewes, J., Ebert, J., Langer, P. C., Kleiber, D., & Gusy, B. (2020). Social inequalities in health-related quality of life among people aging with HIV/AIDS: the role of comorbidities and disease severity. *Quality of Life Research*, 29, 1549-1557.
- Fauk, N.K., Ward, P.R., Hawke, K., & Mwanri, L. (2021). HIV stigma and discrimination: Perspectives and personal experiences of healthcare providers in Yogyakarta and Belu, Indonesia. *Frontiers in Medicine*, 8. Doi:10.3389/fmed.2021.625787
- Feyasa, M. B., Gebre, M. N., & Dadi, T. K. (2022). Levels of HIV/AIDS stigma and associated factors among sexually active Ethiopians: analysis of 2016 Ethiopian Demographic and Health Survey Data. BMC public health, 22(1), 1080. https://doi.org/10.1186/s12889-022-13505-1
- Genberg,B.L., Hlavka,Z., Konda, K.A., Maman, S., Chariyalertsak, S., Chingono, A., Mbwambo, J., Modiba, P., Van-Rooyen,H., & Celentano, D.D. (2009). A comparison of HIV/AIDS-related stigma in four countries: Negative attitudes and perceived acts of discrimination towards people living with HIV/AIDS. Social Science & Medicine, 68 (12), 2279-2287.
- Gutiérrez, M., Brooks-Hawkins, J., Hassan, K. (2022). Relationship of health rating and HIV-related stigma among people living with HIV: a community study. *Humanities and Social Sciences Communications*, 9, 98. https://doi.org/10.1057/s41599-022-01086-8
- Hussain, A., Hussain, S., Ali, S.M. (2018). HIV/AIDS a growing epidemic in Pakistan. Journal of Evolution of Medical and Dental Sciences, 7 (8), 1057-1063.
- Khan, R., & Bilal, A. (2019). Knowledge about HIV and discriminatory attitudes toward people living with HIV in Pakistan. *Pakistan Journal of Public Health*, 9(1), 37-41.
- Langi, G.G., Rahadi, A., Praptoraharjo, I., & Ahmad, R.A.. (2022). HIV-related stigma and discrimination among health care workers during early program decentralization in rural district Gunungkidul, Indonesia: a cross-sectional study. BMC Health Services Research, 22, 356. https://doi.org/10.1186/s12913-022-07751-7.
- Letshwenyo-Maruatona, S. B., Madisa, M., Boitshwarelo, T., George-Kefilwe, B., Kingori, C., Ice, G., ... & Haile, Z. T. (2019). Association between HIV/AIDS knowledge and stigma towards people living with HIV/AIDS in Botswana. *African Journal of AIDS Research*, 18(1), 58-64.
- Linton Wahlgren, K. (2024). strategies for addressing HIV/AIDS stigma within a humanitarian context: A case study of the West Africa AIDS foundation and international health care centers work in Ghana. https://uu.diva-portal.org/smash/get/diva2:1883063/FULLTEXT01.pdf
- Majeed, F., Saleem, J., Hameed, S., Ishaq, M., Aftab, M. M., & Shahzad, R. (2024). Modelling Predictive Factors of Knowledge, Attitudes and Practices towards HIV/AIDS Transmission and Their Interlinked Role: A Facility-Based Cross-Sectional Study Among HIV/AIDS Patients in Lahore, Pakistan: Knowledge, Attitudes, and Practices on HIV/AIDS Transmission. *Pakistan Journal of Health Sciences*, 5(10), 218–224. https://doi.org/10.54393/pjhs.v5i10.2395
- Monjok, E., Smesny, A., & Essien, E. J. (2009). HIV/AIDS-related stigma and discrimination in Nigeria: review of research studies and future directions for prevention strategies. *African Journal of Reproductive Health*, 13(3), 21-35.
- Nazim, A., Samuel, I.S., & Nazim, T. (2021). Comparison of HIV- related stigma in people with substanceabuse and health care providers. *Asian Social Studies and Applied Research*, 2(4), 206-214.
- Ncitakalo, N., Mabaso, M., Joska, J., & Simbayi, L. (2021). Factors associated with external HIV-related stigma and psychological distress among people living with HIV in South Africa. *SSM Population Health*, *14*, 100809. https://doi.org/10.1016/j.ssmph.2021.100809
- Rai, M., Warraich, H., Ali, S., & Nerurkar, V. (2007). HIV/AIDS in Pakistan: the battle begins. *Retrovirology*, 4(1), 22. doi: 10.1186/1742-4690-4-22

- Rana, B. K., Sarfraz, M., Reza, T. E., & Emmanuel, F. (2023). A Cross-Sectional Study to Assess HIV/AIDS-Related Stigma and Its Drivers Among Dental Healthcare Providers in Islamabad, Pakistan. *Cureus*, 15(10), e46769. https://doi.org/10.7759/cureus.46769
- Rueda, S., Mitra, S., Chen, S., Gogolishvili, D., Globerman, J., Chambers, L., Wilson, M., Logie, C. H., Shi, Q., Morassaei, S., & Rourke, S. B. (2016). Examining the associations between HIV-related stigma and health outcomes in people living with HIV/AIDS: a series of meta-analyses. *BMJ open*, 6(7), e011453. https://doi.org/10.1136/bmjopen-2016-011453
- Saad, B. M., Subramaniam, G., Tan, P. L.(2013). Awareness and vulnerability to HIV/AIDS among young girls. Procedia: Social and Behavioral Sciences, 105, 195-203.
- Saad, B. M., Tan, P. L., & Subramaniam, G. (2015). Implication of HIV/AIDS knowledge on quality of life of young women in Malaysia. *Procedia-Social and Behavioral Sciences*, 202, 218-226.
- Shrestha, P.W., Visudtibhan, P.J., & Kiertiburanakul,S. (2024). Factors Associated With HIV-Related Stigma Among Healthcare Providers at a University Hospital in Nepal. *Journal of the International Association of providers of AIDS Care*. https://doi.org/10.1177/23259582241282583
- Srithanaviboonchai, K., Chariyalertsak, S., Nontarak, J., Assanangkornchai, S., Kessomboon, P., Putwatana, P., Taneepanichskul, S., & Aekplakorn, W. (2017). Stigmatizing attitudes toward people living with HIV among general adult Thai population: Results from the 5th Thai National Health Examination Survey (NHES). *PloS one*, *12*(11), e0187231. https://doi.org/10.1371/journal.pone.0187231
- Steward, W., Bharat, S., Ramakrishna, J., Heylen, E., &Ekstrand, M. (2012). Stigma Is Associated with Delays in Seeking Care among HIV-Infected People in India. *Journal Of The International* Association Of Providers Of AIDS Care (JIAPAC), 12(2), 103-109. doi: 10.1177/1545109711432315

The Research of Medical Science Review