HIV/AIDS-Related Stigma and Prevalent Attitude among Healthcare Trainees in Delhi

Sushma Kumari^{1*}, Gita Jyoti Ojha², Aldrin Anthony Dungdung³, Avtar Singh⁴

ABSTRACT

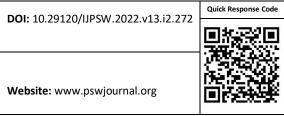
Background: Despite growing awareness of HIV /AIDS the exact level of knowledge regarding the associated stigma among healthcare trainees needs to be ascertained. Their knowledge reflects the quality of care delivered by them in the future. Aims: This study aimed to assess the knowledge of stigma associated with HIV/AIDS among trainee healthcare students in Delhi. Settings and Design: cross-sectional survey design. Methods and Material: A total of two hundred healthcare students were contacted for the survey. The HIV stigma scale with 18 items was administered one-one /mail after receiving the informed consent. Finally, data were collected from one hundred and twenty-seven subjects after excluding the dropouts. Related statistical analysis was performed to examine the data. Statistical analysis used: Descriptive statistics were used for the variables. Results: Scores on the three domains reflected that the maximum number of subjects had awareness of the negative attitude and equity issues related to HIV/AIDS. Also, there seemed to be less recognition of the perceived discrimination prevalent within the community. Conclusions: This study reports on HIV/AIDSrelated discriminatory attitudes and stigma encountered by persons living with HIV/AIDS. Such attitudes contribute to missed opportunities for prevention, education and treatment, undermining efforts to manage and prevent HIV. Thus, knowledge of healthcare trainees about HIV/AIDS-related stigma that can hinder efforts to manage and prevent HIV needs to be addressed.

Keywords: Stigma, attitude, HIV/AIDS, health care, awareness

INTRODUCTION

Stigma is common in many medical conditions including HIV. It has negative attributes of devaluing a person's social identity resulting in the exclusion or avoidance of the person attached to such negative stereotypes.1 The phenomenon of HIV is particularly remarkable due to fear, misunderstanding, secrecy, silence, and assumptions around it. Advances after the introduction in treatment

Access the Article Online				
DOI: 10.29120/IJPSW.2022.v13.i2.272	Quick Response Code			
DOI. 10.29120/13F3W.2022.V13.12.272				
Website: www.pswjournal.org				



antiretroviral therapies (ART) have transformed an HIV diagnosis from a neardeath stage to a manageable chronic stage. The related stigma and discrimination continue to be major barriers to the care, treatment, and prevention of HIV/ AIDS. Stigma has a significant impact on the health and mental health of people living with HIV/AIDS (PLWHA).

Address for Correspondence:

Dr. Sushma Kumari, Senior Psychiatric Social Worker, Department of Psychiatric Social Work, R.N. 109, Old Faculty Building, Institute of Human Behaviour and Allied Sciences (IHBAS), Dilshad Garden, Delhi-110095

Email: sushma_cip@yahoo.com

How to Cite the Article: Kumari S, Ojha GJ, Dungdung AAD, Singh A. HIV/AIDS-Related Stigma and Prevalent Attitude among Healthcare Trainees in Delhi. Indian J Psychiatr Soc Work 2022;13(2):62-69.

¹Senior Psychiatric Social Worker, Department of Psychiatric Social Work, Institute of Human Behaviour and Allied Sciences (IHBAS), Delhi, India

²Occupational Therapist, Department of Occupational Therapy, IHBAS, Delhi, India

³Assistant Professor, Department of Neurology, IHBAS, Delhi, India

⁴Associate Professor, Department of Social Work, Dr Bhim Rao Ambedkar College, University of Delhi, India

Over the past few decades, India has made substantial progress in its attempt to handle the HIV epidemic as compared with other countries in the region. The National AIDS Control Programme (NACP) Phase IV. targets high-risk groups with a major focus on stigma and discrimination. The implementation of the HIV AIDS (Prevention and Control) Act 2017 prohibits discrimination against PLWHA within employment, healthcare, education, public facilities, and public office, as well as protecting property and insurance rights.^{2,3} However, people living with HIV continue to experience high levels of discrimination. In 2016, a study demonstrated that a third of adults showed a discriminatory attitude towards people living with HIV.4 This is a similar level recorded a decade earlier in 2006, suggesting that current stigma-reduction activities do not work as expected.⁴

Persons living with HIV/AIDS face high stigma in all spheres of life across the globe including India. Whether felt or enacted, there are universal human tendencies to think and behave in ways that label, blame, stigmatize, alienate, and discriminate against others. AIDS is perceived as a disease of others - where PLWHA is often considered wrong and sinful. A study of doctors, nurses, and ward staff in government and non-government clinics in Mumbai and Bengaluru in 2013 found that discriminatory attitudes were common.⁵ Similar findings were reported from Ujjian, Uttarakhand, Odisha and Delhi studies where stigmatizing behaviour was found across all categories of HCWs. 6,7,8,9 This included a willingness to discourage women living with HIV from having children, endorsement of mandatory testing for female sex workers and surgery patients, and stating that people who acquired HIV through sex or drugs received what they deserved.⁴

Such stigmatizing beliefs are then enacted, creating a distance either in perceived or real form PLWHA. ¹⁰ If the stigmatizing individual is a healthcare provider the consequences are very impactful as this can influence access to and quality of care. Negative attitudes of healthcare providers toward PLWHA manifested through practices such as charting, isolation, breach of confidentiality, refusal to care, and testing without consent have been documented. ^{6,11,12} Therefore, some PLWHA does not receive the needed support because of

either low healthcare-seeking behaviour due to fear of stigma, or because of negligence by healthcare workers (HCWs). Stigmatizing interactions are often not recognized by healthcare providers as stigmatizing. For instance, visibly marking the files of PLWHA is considered an appropriate practice by some HCWs. Individual-level factors that affect the practice of HCWs include fear of casual transmission and limited knowledge of what stigma is and its negative consequences. ^{13,14}

Stigma also impacts the well-being of healthcare professionals as they may be living with stigmatizing conditions (secondary stigma). It prevents them to disclose their work with HIV /AIDS patients, revealing their health status to colleagues, and being reluctant to access and engage in care. 15,16

Despite recognizing stigma as a roadblock to HIV prevention efforts much less attention has been paid to developing effective stigma reduction programs and activities globally.^{5,17} In India, research on this important topic is gaining momentum but is still in its infancy stage.

The majority of the studies conducted to date have focused mainly on matters such as the pathogenesis of HIV infection, universal precautions related to HIV/AIDS, virology, and how HIV is transmitted. 18,19,20

Studies focused on the HIV/AIDS patients' perspectives and experiences have also documented the stigma and discrimination they face while availing of the treatment. Being in the healthcare discipline can mean knowing the disease but may not ensure a stigma-free compassionate approach in actual practice. A study showed that even the most senior HCWs do not have a complete understanding of HIV transmission and prevention. ²²

A growing body of literature has shown the existence of stigma among healthcare professionals. Most of them measured the attitude of healthcare professionals towards PLWHA or attitude towards stigma-related issues in healthcare settings but none of them have enquired regarding their views and awareness about HIV-related stigma prevalent in the community. Hence a study that measures knowledge of HIV-related stigma in the community may be a better indicator of one's belief and also reflective of what one is

practising or going to practice in the field. Given the fact that health service settings and health care providers play a central role in testing, treatment, care, and rehabilitation available to PLWHA. Further, very few studies focussed on future professionals' i.e. healthcare students particularly those in allied health.

Keeping these facts in mind the present study was planned. Students from the third to fourth years of Bachelors-of-Nursing Occupational Therapy both clinical disciplines with varying degrees of patient contact were included in the present study. This would provide a better understanding of students' prior knowledge about stigma and their ability to recognise the prevalent attitudes and towards behaviour HIV/AIDS the community. Having good information about HIV transmission is not, enough to guarantee that people will remember and act on the knowledge when encountering PLWHA. Also, students had a higher tendency to improve than HCPs.6

Aim of the Study: The present study aimed to assess and explore the knowledge of stigma associated with HIV/AIDS among trainee healthcare students in Delhi.

MATERIALS AND METHODS

This cross-sectional survey was conducted from October 2019 to December 2019 on healthcare trainee students of government and two private nursing and occupational therapy colleges in Delhi. total of two hundred students were contacted. Those unwilling or who had apprehensions about participating in the study were excluded. A few of them contacted through emails did not respond within the stipulated time. Hence, the final sample size consisted of 127 bachelors of nursing and Bachelor of occupational therapy students. Data were collected by administering the stigma scale in person and through mail after obtaining their consent. Confidentiality and anonymity were ensured.

Measures: Data related to socio-demographic variables were collected with the help of a semi-structured Performa especially designed for the present study.

The HIV Stigma Scale²³ by Genberg, et al. (2009) was used to study the HIV/AIDS

stigma and attitudes prevalent among students. The scale comprises three subscales, negative attitude towards people who are living with HIV/AIDS (eight items), perceived discrimination in the community (six items), and support for equitable treatment of PLWHA (four items). It is a five-point Likert scale ranging from 1(strongly disagree) to 5 (strongly agree). It is easy to administer and score. It took approximately fifteen minutes to fill it.

The response given for each item of the scale was entered into a Microsoft Excel spreadsheet and analyzed manually by the authors.

RESULTS

Table 1: Socio-demographic characteristics of the participants (N=127)

Variables	N(%)/Mean ± SD
Disciplines	
Nursing	77 (60.62%)
Occupational Therapy	50 (39.37%)
Age (range = $20-24$ yrs)	21.99±1.01
Sex	
Male	15 (11.81%)
Female	112(88.19%)
Religion	
Hinduism	107 (84.25%)
Sikhism	10 (7.87%)
Islam	4 (3.15%)
Christianity	4 (3.15%)
Jain	2 (1.57%)

Table 1 socio-demographic shows the characteristics of the participants. Out of the total of 127 participant training students, 77(60.62%) were Bachelor of Nursing and 50 (39.37%) were Bachelor of Occupational Therapy (O.T). The mean age of the BSc Nursing students was 21.8 years (Range 20-23 years) with a standard deviation of ± 0.95 whereas the mean age of Bachelor of Occupational Therapy Students was 22.16 years (Range 20-24 years) with a standard deviation of ± 1.16 years. 67(87.01%) of the BSc Nursing students were female and 10 (12.99%) were male whereas 45 (90%) of the BSc Occupational Therapy were female and 5 (10%) were male. The majority of them i.e. 64(83.11%) of BSc Nursing students and 43(86%) Bachelors of Occupational Therapy were Hindu.

Table 2 HIV Related Stigma: Negative Attitude, Perceived Discrimination & Equity to PLWHA (N=127)

DOMAIN 1: Negative Attitude									
Items. No.	Strongly	Disagree	Neither	Agree	Strongly	No			
	Disagree		Agree		Agree	Response			
			Nor						
1. Families of PLWHA should	95 (74.0)	21(16.0)	disagree	7 (5.5)	0 (0.0)	3 (2.36)			
be ashamed	93 (74.0)	21(10.0)	1 (.78)	7 (3.3)	0 (0.0)	3 (2.30)			
2. PLWHA should be	93(73.22)	26(20.47)	5 (3.93)	3 (2.36)	0 (0.0)	0 (0.0)			
ashamed	93(13.22)	20(20.47)	3 (3.93)	3 (2.30)	0 (0.0)	0 (0.0)			
3. PLWHA are cursed	88(66.14)	36(28.34)	5(3.93)	1(.78)	0(0.0)	1(.78)			
4. PLWHA are disgusting	86(67.71)	37(29.13)	2(1.57)	1(.78)	0(0.0)	1(.78)			
5. PLWHA deserve to be	109(85.82)	11 (8.66)	4(3.14)	2(1.57)	1(.78)	0 (0.0)			
punished	109(83.82)	11 (8.00)	(3.14)	2(1.57)	1(.76)	0 (0.0)			
6. It is reasonable for an	89(70.07)	25(19.68)	9 (7.08)	3(2.36)	1(.78)	0 (0.0)			
employer to fire people who	09(70.07)	23(19.00)	7 (7.06)	3(2.30)	1(.76)	0 (0.0)			
have AIDS									
7. PLWHA should be isolated	79(62.20)	31(24.40)	6(4.72)	5(3.93)	4(3.15)	2(1.57)			
from other people	75(02.20)	31(24.40)	0(4.72)	3(3.73)	4(3.13)	2(1.57)			
8. PLWHA should not have the	88(69.29)	20(15.74)	5 (3.93)	11(8.66)	3(2.36)	0 (0.0)			
same freedom as other people	00(03.23)	20(13.7.1)	3 (3.73)	11(0.00)	3(2.30)	0 (0.0)			
DOMAIN: 2 (Perceived Discrim	ination)								
9. PLWHA in the community	15(11.81)	12(9.45)	16(12.60)	47(37.01)	36(28.35)	1(.78)			
face rejection from their peers			, ,	, ,	, ,				
10. PLWHA in this community	14(11.02)	7(5.51)	18(14.17)	63(49.61)	23(18.11)	2(1.57)			
face verbal abuse or teasing		, ,	, ,		, ,				
11. PLWHA in this community	9(7.08)	12(9.44)	31(24.40)	54(42.51)	21(16.53)	0(0.0)			
face neglect from their family		, ,	, , ,		, , ,	, ,			
12. People who are suspected	15(11.81)	10(7.87)	19(14.96)	57(44.88)	26(20.47)	0(0.0)			
of having HIV/AIDS lose									
respect in the community									
13. PLWHA in this	16(12.59)	13(10.23)	33(25.98)	51(40.15)	14(11.02)	0(0.0)			
community face physical abuse									
14. Most people would not buy	9(7.08)	18(14.17)	23(18.11)	52(40.94)	24(18.89)	1(.78)			
vegetables from a shopkeeper									
or food seller that they knew									
had AIDS									
DOMAIN :3 (EQUITY)									
15. People with AIDS should	8(6.29)	10(7.87)	7(5.51)	30(23.62)	72(56.69)	0(0.0)			
be treated similarly by health									
professionals as people with									
other illnesses									
16. People with AIDS should	10(7.87)	2(1.57)	8(6.29)	31(24.41)	75(50.05)	1(.78)			
be allowed to fully participate									
in social events in this									
community	10(7.97)	F(2.02)	6(4.72)	25(27.55)	70(55.11)	1(70)			
17. People with AIDS should	10(7.87)	5(3.93)	6(4.72)	35(27.55)	70(55.11)	1(.78)			
be allowed to work with other									
people	14(11.02)	2(2.26)	1(2.15)	20	76(50.94)	0(0.0)			
18. PLWHA should be treated	14(11.02)	3(2.36)	4(3.15)	30 (23.62)	76(59.84)	0(0.0)			
the same as everyone else				(23.02)					

Table 2 Section (Domain 1) depicts the Knowledge regarding Stigma and Negative Attitude Prevalent towards HIV/AIDS among participants.

In Domain 1(Negative attitude): The mean of the responses for this domain (items 1-8) was 1.28, suggesting a favourable attitude toward PLWHA among the subjects. Item 1 had 95(74%) responses for strongly disagree (1) while there was only one response for category 3 (neither agree nor disagree). Items 2, 3 and 4 had maximum of 93(73%), 84(66%) and 86(67.7%) subjects respectively scoring 1 (strongly disagree); while 3(2.36), 1(.78) and 1(.78) subjects respectively scored 4 (agree). Similarly for items 5,6,7and 8 maximum responses 109 (85.8%),89(70%)79(62%) and 88(69.2%) respectively were scored for strongly disagree(1); whereas minimum responses of 1,1,4 and 3 number of subjects respectively scored for strongly agree(5). The majority of the students had fairly good knowledge of HIV-related prevalent negative attitudes.

Table 2 Section (Domain 2): The findings in this domain are shown in Table 2B. The findings are related to perceived discrimination. The mean of the responses for this domain (items 9-14) was 3.47. Item no. 9.10.11.12.13. and 14 had 47(37%), 54(42%), 57(44.88%), 63(49.61%), 51(40.15%) and 52(40.94%) subject respectively for agree(4). while responses minimum responses of 12(9.45%), 7(5.51%), 10(7.87%) and 13 (10.23%) subjects for items 9,10,12 and 13 scored for category 2(disagree). There were only 9(7.08%) subjects for both items no. 11 and 14 scoring 1(strongly disagree). This reveals that most of the students were neutral with regard to Perceived Discrimination in the community.

Table 2 Section (Domain 3): Depicting Values for Equity in Domain 3 for item nos. from 15 to 18. The mean of the responses for this domain (items 15-18) was 4.23. Item no. and 18 15, 16, 17 had 72(56.69%). 75(59.05%), 70(55%) and 76(59.84%) subjects respectively with responses strongly agree (5). While only 7(5.51%) and 8(6.29%) subjects responded for items 15 and 16 respectively with category 3(neither agree nor disagree). There were only 5(3.93%) and 3(2.36%) subjects for items 17 and 18 scoring

2(disagree). Most of the respondents had opined for equity for PLWHA revealing that they were in favour of providing equal treatment, opportunity, and participation the same as others are getting.

DISCUSSION

Despite global progress in the treatment and care of PLWHA, substantial evidence from different parts of the world highlights HIV/AIDS-related stigma as a barrier to HIV prevention work and in mitigating its impact. ¹⁷ In healthcare facilities, the manifestations of stigma are preventing an individual from seeking health services at a time when they are in most need of them. Therefore, the present study attempted to assess the knowledge of HIV-related stigma among healthcare trainees who are going to be healthcare providers. Hence, it would be a more direct indicator of the quality of care to be delivered by them in the future.

Socio-demographic characteristics of the participants

The majority of the students in the present study were females (88.18%) and Hindus (84.25%) which is consistent with the findings of Ekstrand et al.⁵ and Shivali ²⁴ while Christianity was the next most common. This indicates that both professions are historically female-dominated. A study by Vyas et al within religious communities in rural Gujarat, India suggested that HIV/AIDS awareness programs may need to focus on young unemployed men because they may be the most susceptible to stigmatic thinking.²⁵

The knowledge regarding stigma and attitudes prevalent towards HIV/AIDS

In the present study in Domain 1 majority of the students (from items No.1-8) had disagreed with statements about Negative attitudes and thus had a favourable attitude towards PLWHA (Table 2 Section Domain 1). These findings are contrary to the results of previous studies. ^{26,27,28,6,7,8,9} This could be because many of the nursing participants were involved in tertiary care hospitals with ART centres and PPTCT centres. In a study by ²⁹Steward et al., 71% of HIV-positive individuals reported no instance of discrimination, consistent with many studies in India where it was found that

enacted stigma is not very high but the perceived stigma is high.²¹

Findings of Perceived Discrimination in the community in Domain 2 showed that most of the participants took a neutral to slightly favourable stand as depicted between items no.9-14 (Table 2 Section Domain 2). This indicates the lack of complete understanding of the disabling consequences of HIV/AIDS faced by PLWHA in society. The reason could be that healthcare trainees share the same belief as a part of the larger society. Thus, the present findings support the findings of Choy et al.²⁷ It also points out that they may have failed to identify stigma-related behaviour prevalent in the community or they were unaware of the discriminatory behaviours meted out to a PLWHA in society by others.

The results of items 15 to 18 (Domain 3), as represented in Table 2 revealed that a good number of the respondents had opined for equity for PLWHA and were in favour of providing equal treatment, opportunity, and participation similar to others. The current findings are contrary to the previous study done by Nyblade et al. 13 The probable reason may be the change of approach from a welfare approach to a rights-based perspective. It also reflects the changing attitude among trainee professionals and the responsibility associated with it. Most of the respondents advocated for an equitable approach may be due to the training and increased understanding of the equitable rights of people with disabilities in general contrary to Indian studies on students.³⁰

Despite a very favourable finding, in contrast to previous studies; 6,7,9 there were subtle issues that indicated that knowing may not translate into compassionate behaviour; for example, many nursing students were apprehensive of disclosing their names even though they were willing to participate in the study. Many expressed discomfort with the idea of working with such a population out of fear, due to lack of exposure and training.

Limitations

This study has the following limitations:

 The sample was collected using a convenient sampling technique and the sample size was small; hence, the

- generalization of the results remains doubtful.
- Males were underrepresented in the current sample. The sample predominantly consisted of females, which cannot be seen as representative of the community populations.
- Only two groups of healthcare trainee professionals were involved. Hence one cannot be certain to what extent our findings can be generalized to other groups.
- A Self-administered questionnaire was used

Future Direction

- 1. In the future, such a study should be carried out with a larger sample with equal representation of genders, crossed discipline and cross-disease.
- 2. Develop culture-specific sensitive tools for stigma measurement in HIV.
- 3. Develop and test stigma reduction interventions tailored to the local context and culture that tackle multiple stigmas at once, target all levels of staff and focus on empowerment.

CONCLUSION

The trainee health care students agreed less to statements on negative attitudes and more to the need to offer equity to PLWHA. However, they had less awareness of perceived discrimination within the community. Since some gaps about discriminatory practices persist in the participant's knowledge. A better understanding of the student's prior knowledge about stigma and recognition of the prevalent attitudes and behaviour towards HIV/AIDS would serve as a tool to create better educational programs dealing with stigma and encouraging empathy toward patients.

Acknowledgement: First, we thank all the study participants for their contributions. We are also thankful to the supervisors and teachers of the participants of the various colleges included in the study for their support.

Financial Support: Nil
Conflict of interest: None

REFERENCES

- 1. Stangl AL, Earnshaw VA, Logie CH et al. The Health Stigma and Discrimination Framework: a global, crosscutting framework to inform research, intervention development, and policy on health-related stigmas. BMC Medicine.2019;17:31. doi: 10.1186/s12916-019-1271-3
- 2. HIV/AIDS Act 2017 | National AIDS Control Organization | Mohfw | Goi". Naco.Gov.In, 2023, https://www.naco.gov.in/hivaids-act-2017. Accessed 24 July 2022.
- 3. Ministry of Health and Family Welfare (2019). Annual Report 2018-2019: National AIDS Control Organization (NACO), p.502.
- 4. UNAIDS (2019). AIDS Data 2019, PP.170-171. Retrieved January 9, 2020, from https://www.unaids.org/sites/default/file s/media_asset/2009-UNAIDS-date_en.pdf.
- 5. Ekstrand ML, Ramakrishna J, Bharat S et al. Prevalence and drivers of HIV stigma among health providers in urban India: implications for interventions. Journal of the International AIDS Society.2013;16:18717.[cited Feb 24, 2021]. Available from http://www.jiasociety.org/index.php/jias/article/view/18717/http:/dx.doi.org/10.7448/IAS.16.3.1871
- 6. Machowska A, Bamboria BL, Bercan C et al. Impact of 'HIV-related stigmarreduction workshops' on knowledge and attitude of healthcare providers and students in Central India: a pre-test and post-test intervention study. BMJ Open 2020;10:e033612. doi:10.1136/bmjopen-2019-033612
- 7. Doda A, Negi G, Gaur DS et al. Human immunodeficiency virus/acquired immune deficiency syndrome: a survey on the knowledge, attitude, and practice among medical professionals at a tertiary health-care institution in Uttarakhand, India. Asian J Transfus Sci 2018;12:21–6. doi:10.4103/ajts.AJTS_147_16
- 8. Mohapatra I and Panigrahi O P. Human immunodeficiency virus/acquired immunodeficiency syndrome-related discriminatory practices among health-

- care providers in apex health institutions of Bhubaneswar, Odisha. Indian Journal of Sexually Transmitted Diseases and AIDS.2019; 40(2):139-45
- 9. Mahendra VS, Gilborn L, Bharat S, Mudoi R, Gupta I, George B, Samson L, Daly C, Pulerwitz J. Understanding and measuring AIDS-related settings: A developing country perspective. SAHARA-J: Journal of Social Aspects of HIV/AIDS. 2007;4(2):616-25.
- NACO. Annual report 2015-16'. Retrieved February 20, 2020 from http://naco.gov.in/sites/default/files/Annual-Report 2015-16_NACO, pdf
- 11. Herk GM, Capitanic JP and Widaman KF. Stigma, Social Risk, and Health Policy: public attitudes towards HIV surveillance policies and social construction of illness. Health Psychology 2003; 22:533-40.
- 12. Vyas KJ, Patel GR, Shukla D et al. A Comparison in HIV-associated Stigma amongst Healthcare Workers in Urban and Rural Gujarat. J Soc Aspects HIV/AIDS 2010,7(2):71-5.
- 13. Nyblade L, Stangl A, Weiss E et al. Review Combating HIV Stigma in Healthcare Settings: What Works? Journal of the International AIDS Society.2009;12:15. doi: 10.1186/1758-2652-12-15,
- 14. Nyblade L, Stockton MA, Giger K et al. Stigma in health facilities: why it matters and how we can change it. BMC Medicine.2019;17:25. doi: 10.1186/s12916-019-1256-2.
- 15. Kebede B, Abate T and Mekonnen D. HIV Self-testing practices among healthcare workers: feasibility and options for accelerating HIV testing services in Ethiopia. The Pan African Medical Journal 2013;15:50.
- 16. Khan R, Yassi A, Engelbrecht MC et al. Barriers to HIV counselling and testing uptake by health workers in three public hospitals in Free State Province, South Africa. AIDS Care 2015; 27:198-205
- 17. Mahajan AP, Sayles JN, Patel VA *et al.* Stigma in the HIV/AIDS epidemic: A review of the literature and recommendations for the way forward. AIDS. 2008; 22:S67-79.
- 18. Agarwal AS, Maurya AA and Siddiqui WA. Knowledge and attitude of medical

- students regarding HIV/AIDS. Indian Journal of Basic and Applied Medical Research. 2013;3:267-77.
- 19. Lal P, Singh MM, Malhotra R et al. Perception of risk and potential occupational exposure to HIV/AIDS among medical interns in Delhi. The Journal of Communicable Diseases 2007; 39:95-99.
- 20. Kalhan M, Vashisht BM and Sharma S. Awareness about HIV/AIDS in first year medical students of Rohtak. The Journal of Communicable Diseases. 2008;40:211-14.
- 21. Thomas BE. Rehman F. D Suryanarayanan et al. How stigmatizing is stigma in the life of people living with HIV: A study on HIV positive individuals from Chennai. South India. **AIDS** Care 2005; 17(7):795-801.
- 22. Mahendra VS, Gilborn L, George B, Samson L, Mudoi R, Jadav S, Gupta I, Bharat S, Daly C. Reducing AIDS-related stigma and discrimination in Indian hospitals. Horizons Final Report. New Delhi: Population Council. https://knowledgecommons.popcouncil. org/departments sbsr-hiv/51
- 23. Genberg BL, Hlavka Z, Konda KA *et al.* 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.2009;68:2279-87.
- 24. Shivalli S. Occupational exposure to HIV: Perception and Preventive Practices of Indian Nursing Students. Hindawi Publishing Corporation Advances in Preventive Medicine, 2014:1-5, doi:10.1155/2014/296148.
- 25. Vyas KJ. HIV Stigma within Religious Communities in Rural India

- (2015). Walden Dissertations and Doctoral Studies. 1760.
- 26. https://scholarworks.waldenu.edu/disser tations/1760.
- 27. Dong X, Yang J, Peng L et al. HIVrelated stigma and discrimination amongst healthcare providers Guangzhou, China. **BMC Public** Health.2018; 18:738. [cited Feb 24, 2021 1. Available from https://doi.org/10.1186/s12889-018-56548
- 28. Choy KK, Rene TJ and Khan SA. Beliefs and Attitudes of Medical Students from Public and Private Universities in Malaysia towards Individuals with HIV/AIDS. Scientific World Journal. 2013. [cited Feb 24, 2021]. Available from https://doi.org/10.1155/2013/462826
- 29. Ambati BK, Ambati J and Rao AM. Dynamics of knowledge and attitudes about AIDS among the educated in Southern India. AIDS Care 1997;9:319-30
- 30. Steward WT, Herek GM, Ramakrishna J et al. HIV- related stigma: Adapting a theoretical framework for use in India. Social Science & Medicine.2008.67:1225-35.
- 31. Bharat S. A systematic review of HIV/AIDS-related stigma and discrimination in India: Current understanding and future needs. Journal of Social Aspects of HIV/AIDS. 2011:8:37-49.

Submitted on: 30-03-2021

Revised on: 27-07-2022

Accepted on: 29-07-2022

Published on: 30-07-2022