

**KNOWLEDGE, ATTITUDE AND PRACTICES OF NURSES
REGARDING HIV/AIDS RELATED STIGMA AND
DISCRIMINATION REDUCTION AT TERTIARY CARE
HOSPITALS OF FAISALABAD**

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ABSTRACT

Acquired Immunodeficiency Syndrome (AIDS) caused by Human Immunodeficiency Virus (HIV), is one of the most challenging health issues worldwide. Stigma and discrimination related to HIV/AIDS causes frightening away from seeking care and undermining preventive efforts by limiting access and service utilization thereby, leading to poor health outcomes of people either living with or affected by HIV/AIDS. The objective of this study was to assess the nurses' knowledge; attitude and practices of strategies for reducing HIV related stigma and discrimination at tertiary care hospitals of Faisalabad. A descriptive, cross-sectional study was conducted at two public sector tertiary care hospitals of Faisalabad. The duration of study was 4 months from 1st February to 30th May, 2022 and target population was the nurses caring for HIV/AIDS patients. Sample Size was 384 calculated with standard formula given for descriptive studies. Data was collected through self-structured questionnaire and analyzed on SSPS software version 20. Among total of 384 participants, all were females. Majority (54.4%) of the participants did not receive previous training regarding prevention of HIV/AIDS related stigma and discrimination. Based on the total knowledge scores, majority (68.5%) nurses had satisfactory knowledge regarding HIV/AIDS related stigma and discrimination reduction. Majority (53.6%) had low discriminatory attitude towards people affected. With regards to their practice of strategies for reducing HIV/AIDS related stigma and discrimination, majority (73%) had good practice. The overall results concluded that nurses have enough knowledge, low discriminatory attitudes and good practices regarding HIV/AIDS related stigma and discrimination reduction. **Keywords:** Attitude, Discrimination, Knowledge, Nurses, Practice, and Stigma.

INTRODUCTION

Acquired Immunodeficiency Syndrome (AIDS) caused by Human Immunodeficiency Virus (HIV), is one of the most challenging health issues worldwide. In 2020, 37.7 million individuals worldwide were living with HIV/AIDS, resulting in 680 000 deaths from HIV/AIDS-related illnesses (WHO, 2021). The spread of HIV/AIDS varies across the world, with Sub-Saharan Africa bearing the highest burden, accounting for more than two-thirds of all individuals living with HIV/AIDS globally, followed by Asia and the Pacific (UNAIDS 2019). The majority of HIV/AIDS patients live in low- and middle-income countries, where, despite efforts and advances in HIV/AIDS prevention, early diagnosis, and treatment; many people lack access to prevention, care, and treatment (Chibanda, D. et al., 2014). The main reason for this is the stigma and discrimination associated with HIV/AIDS, which causes fear, and as a result, infected individuals do not seek care, thereby restricting access and care utilization (Feyissa, Lockwood et al. 2019).

In the fight against HIV/AIDS, the health care providers are at the front line. Because health care providers guide across the HIV/AIDS care continuum with the objective of improving the quality of life and reducing the mortality and morbidity rate (Geter, Herron et al. 2018). Nurses are the largest health care providers and have an important role to play in the prevention, care, treatment and eradication of HIV/AIDS related stigma and discrimination. As a result, it is important to review the gaps in nursing staff knowledge, attitude, and practices of strategies for reducing HIV/AIDS-related stigma and discrimination. The purpose of this study is to assess the knowledge, attitude and practices of nurses regarding HIV/AIDS related stigma and discrimination reduction.

The aim of this literature review is to assess the knowledge, attitude and practices of nurses regarding HIV/AIDS related stigma and discrimination. For conducting this literature review, different databases such as Google scholar, PubMed, Pak MediNet and HEC digital library were accessed. Searches from 2015 to 2021 were included. Articles published in English language were included. Key terms 'HIV', 'AIDS', 'HIV/AIDS', 'Stigma associated with HIV/AIDS', 'HIV/AIDS related Stigma', 'HIV/AIDS related discrimination', 'HIV/AIDS related stigma and discrimination', 'nurses' knowledge, 'nurses' practices' were used. Boolean operators AND, OR were used to combine keywords to refine searches.

HIV/AIDS has become major public health concern around the world especially in developing nation. Particularly in Pakistan, there are a lot myths attached with

HIV/AIDS, which aggravate the negativity towards people living with this disease. A recent study investigated the attitudes of general population towards people living with HIV/AIDS. The results revealed that majority (68%) of the public had good understanding of HIV/AIDS but have negative attitudes towards people living with HIV/AIDS. This study suggests awareness sessions aiming at inculcating positive attitude emphasizing the role of media in eradicating the myths and misconceptions regarding HIV/AIDS (Iqbal, Maqsood et al. 2019).

Moussa and Delabre carried out this research in the Moroccan in the year of 2021. According to this there were two types of stigma internal and external stigma. But these types was not well explained in the Middle East and North African countries, while strict act was required to stop the effect of this particular form of stigma. This study aims to describe the effect of internal stigma and identify the factor which was associated with the internal stigma and not yet predicted among the PLHIV. Index questionnaire was used to collect the information related to stigma and discrimination across 8 cities in Morocco. According to this study among the 626 people 88.2% internal stigma were identified. Regarding internal stigma 51% patient avoided to going local clinics when needed and 44% patient avoided to going the social places.

HIV intervention with the fear of stigmatization by health care providers or staff and denial behavior of the patient to receive health services with the positive HIV status were among the factors which was considerably associated with the internal stigma score increment. Internal stigma rate was high among the Moroccan HIV positive patient and significantly affecting their quality of life. Multilevel interventions were required to deal with internal stigma experienced by patient living with HIV in Moroccan (Moussa, Delabre et al. 2021).

After a thorough review of literature found from different parts of the world, it is concluded that stigma and discrimination are the major factors hindering proper control and prevention of HIV/AIDS. Given the significant role of nurses in reducing HIV/AIDS related stigma and discrimination, it is imperative to find the gaps in knowledge and practices of nurses with regards to HIV/AIDS related stigma and discrimination reduction.

OBJECTIVE

The objective of this study was to assess the nurse's knowledge; attitude and practices of strategies for reducing HIV related stigma and discrimination at tertiary care hospitals of Faisalabad.

OPERATIONAL DEFINITION(S)

Knowledge: The term "knowledge" can refer to a theoretical or practical understanding of a subject (Mshelia, Osman et al. 2022). In this study, knowledge is the level of nurses' awareness with regards to HIV/AIDS stigma and discrimination reduction. In this study, nurse's knowledge will be measured on self-structured questionnaire. Based on Mean knowledge Score (MKS), nurses' level of knowledge will be categorized into satisfactory (\geq MKS) and unsatisfactory ($<$ MKS).

Attitude: Attitude is a complex mental status involving beliefs, feelings and values (Kebede, Taddese et al. 2022). . In this study, nurses' attitude will be measured on 5-point likert scale. Based on Median Attitude Score (MAS), nurses' level of attitude will be categorized into low discriminatory (\geq MAS) and high discriminatory ($<$ MAS).

Practice: Practice refers to actions performed (Kebede, Taddese et al. 2022). In this study, Practice is the level of nurses 'practice of strategies aimed at HIV/AIDS stigma and discrimination reduction. In this study, nurses' practice will be measured on self-structured questionnaire. Based on Mean Practice Score (MPS), nurses' level of practice will be categorized into good (\geq MPS) and bad ($<$ MPS).

Stigma and Discrimination Stigma and discrimination (SAD), also called the "third phase of HIV/AIDS epidemics". In healthcare settings, SAD related to HIV are manifested in various forms such as: differential care or refusal to treat, testing and disclosure of the sero-status of clients without consent, verbal abuses or gossip, marking the files of patients, isolating them and excess use of precautions (Feyissa, Lockwood et al. 2018)

MATERIALS AND METHODS

Study Design: Descriptive, cross sectional study **Settings:** Tertiary care hospitals of Faisalabad including: 1 Allied Hospital of Faisalabad. 2 District Headquarter Hospital Faisalabad. **Duration of Study:** 4 months from 1st February to 30th May, 2022. **Target population:** The nurses of the tertiary care hospital of Faisalabad who are dealing with HIV patient. **Sample Size:** 384 calculated from following formula

Sample Selection:

$Z_{1-\alpha/2}$ = standard normal variate (at 95% = 1.96).

Sampling Technique: Convenient Sampling method

Inclusion Criteria: The staff nurses who are directly involved in the HIV patient care.

Exclusion Criteria: Staff nurses who are not directly involved in the HIV patient care. **Data Collection tool:** Data was collected through the self-structured questionnaire developed after a thorough review of literature (Farotimi et al. 2015). **Data Analysis Procedure:** Data was analyzed through the SPSS software version 20 employing descriptive statistics.

Results: This chapter will present the results of the study. The chapter has been divided into four sections. Section I present the socio-demographic and practice characteristics of the participant nurses. Section II, III, IV describes their knowledge, attitude and practice scores respectively.

Section 1 The socio-demographic characteristics of participants are presented in Table 1. Among total of 384 participants, all were females. Majority of the participants (66.4%) age was less than 30 years. With regards to analysis of

Variable	Frequencies(n)	Percentage%
Age	255	66.4%
<30years	94	24.5%
30-40years	35	9.1%
>40years Total	384	100%
Gender Male Female	0	
Total	384	100%
	384	100%
Educational status Diploma or below Bachelor degree or above	182	47.4%
Total	202	52.6%
	384	100%
Working experience	157	40.9%
Belowthan5years 6-10 years	154	40.1%
Above10years Total	73	19.0%
	384	100%
Area of practice	212	55.2%
Medical Surgical Others Total	118	30.7%
	54	14.1%
	384	100%
Previous training	175	45.6%
Yes No Total	209	54.4%
	384	100%

their educational status, majority (52.6%) nurses were having bachelor degree in nursing. Mostly (40.9%) nurses were having less than 5 year of experience. Majority (54.4%) of the participants did not receive previous training regarding prevention of HIV/AIDS related stigma and discrimination.

Table1: Socio-demographic and practice characteristics (n=384)

SectionII Table2 illustrates the frequency distribution of participant nurses with regards to Their knowledge of strategies for reducing HIV/AIDS-related stigma and discrimination. With regard to their knowledge, majority (89.9%) nurses agreed that health education on facts about HIV/AIDS helps in reducing HIV/AIDS-related stigma and discrimination. Furthermore 90% (349) nurses agreed that establishment of patient support programme helps in reducing HIV/AIDS related stigma and discrimination. Whereas, majority (92.4%) nurses agreed that training of health care workers on the basic facts about HIV/AIDS contributes immensely for reduction of stigma and discrimination. Majority of nurses, with frequencies ranging from 80% to 90% (n=384), correctly answered the questions regarding sensitization awareness campaign, interventions, counseling and testing for reducing the HIV/AIDS related stigma and Discrimination.

Table2: Participants' knowledge about strategies for reducing HIV/AIDS-related stigma and discrimination (n=384)

Variable	Yes (%)	No(%)	I don't know(%)
1-Health education on facts about HIV/AIDS helps in reducing HIV/AIDS-related stigma and discrimination among health worker	345(89.9)	20(5.2)	19(4.9)
2-Sensitization awareness campaign helps in the reduction of HIV/AIDS-related stigma and discrimination	338(88.0)	25(6.5)	21(5.5)
3-Health education sessions for PLWHA contribute to reduction of HIV/AIDS-related stigma and discrimination	309(80.5)	27(7.0)	48(12.5)
4-Interventions on reduction of HIV/ AIDS-related stigma and discrimination are more likely to be successful if religious organizations are involved	308(80.2)	41(10.7)	35(9.1)
5-HIV counseling and testing contribute immensely to reduction of HIV/AIDS-related stigma and discrimination	323(84.1)	43(11.2)	18(4.7)

6-Establishment of patients support group helps in the reduction of HIV/AIDS-related stigma and discrimination	349(90.9)	22(5.7)	13(3.4)
7-Involvement of PLWHA in policy making plays a major role in reducing HIV/AIDS-related stigma and discrimination	300(78.1)	29(7.6)	55(14.3)
8-Individuals, families, and communities must be involved in programs that aim at reducing HIV/AIDS-related stigma and discrimination	340(88.5)	22(5.7)	22(5.7)
9-Training of health workers on the basic facts about HIV/AIDS contributes immensely to reduction of Stigma and discrimination	355(92.4)	14(3.6)	15(3.9)

Mean knowledge Score (MKS) of nurses was 8 with the standard deviation (S.D) ± 1.801 . Based on the MKS, level of knowledge was categorized into satisfactory (≥ 8) and unsatisfactory (< 8). Based on this scoring 68.5 % (263) nurses had satisfactory knowledge and 31.5 % (121) nurses had unsatisfactory knowledge (shown in Figure 1).

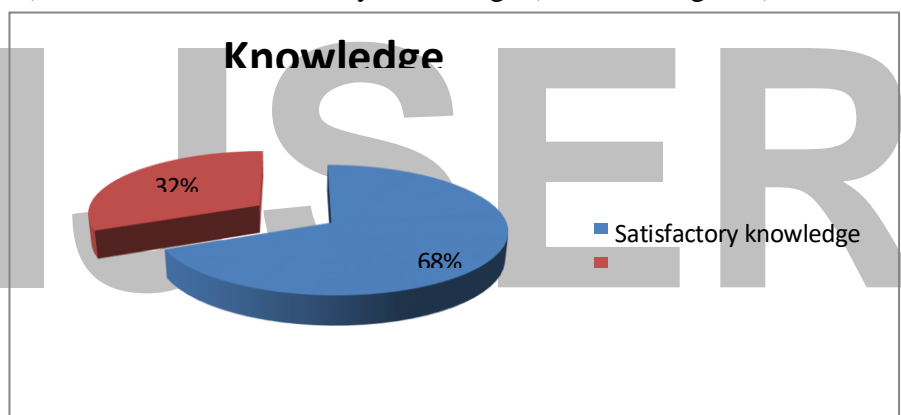


Figure 1: Knowledge Scores of the participants (n=384)

Variable	Strongly Disagree %	Disagree %	Neutral (%)	Agree (%)
1-Health education about basic facts on HIV/AIDS is necessary for people who exhibit immoral behavior	1(0.3%)	1(0.3%)	26(6.8)	148(38.5%)
2-People living with HIV/AIDS Have a right to decide who should know it	7(1.8%)	31(8.1%)	27(7.0%)	221(57.6%)
3-All patients with medical ailment should be screened for HIV/AIDS	9(2.3%)	10(2.6%)	23(6.0%)	119(31.0%)
4-When a patient is tested positive the HIV status should only be disclosed to very close Relation relative seven without the patient's consent	72(18.8%)	9(2.3%)	80(20.8%)	138(35.9%)
5-All patients for surgery should Be screened for HIV/AIDS	1(0.3%)	5(1.3%)	33(8.6%)	88(22.9%)
6-All pregnant women should be screened for HIV/AIDS	-	16(4.2%)	36(9.4%)	129(33.6%)
7-People living with HIV/AIDS should not get married as HIV/AIDS has no cure	4(1.0%)	24(6.3%)	45(11.7%)	111(28.9%)

8-HIV-positive women should not get pregnant as they know that HIV/AIDS has no cure and They will eventually die	6(1.6%)	27(7.0%)	44(11.5%)	142(37.0%)
9-People living with HIV/AIDS should be made to pay for gloves, AIDS kits, and other Infection control supplies	142(37.0%)	55(14.3%)	52(13.5%)	80(20.8%)
10-People living with HIV/AIDS should be made to pay a token for the drugs, so that They will know its importance	135(35.2%)	57(14.8%)	58(15.1%)	80(20.8%)

Section III Table 3 presents the frequency distribution of nurses with regards to their attitude toward the patient living with HIV/AIDS. 54.2% (208) nurses were strongly agreed that health education about basic facts on HIV/AIDS is necessary for people who exhibit immoral behavior. 57.6% (221) nurses agreed that people living with HIV/AIDS have a right to decide who should know it. Majority of nurses ranging from 53% to 67% nurses were strongly agreed that the patients of medicine, surgery and the pregnant women also screened for HIV/AIDS. 52.1% (200) nurses strongly agreed that people living with HIV/AIDS should not get married as HIV/AIDS has no cure. 43.0% (165) agreed that HIV-positive women should not get pregnant as they know that HIV/AIDS has no cure and they will eventually die. 35% to 37% nurses were disagreed on HIV/AIDS patient should made to pay for gloves, AIDS kits, infection control supplies and drug token.

Table3: Attitudes of participants toward strategies for reducing HIV/AIDS-related stigma and discrimination (N=384)

Mean Attitude Score (MAS) of nurses was 5 with the standard deviation (S.D) of 2.519. Based on the MAS nurse's level of attitude was categorized in high discriminatory attitude (≤ 5) and low discriminatory attitude (>5). Overall, the attitude toward strategies for reducing HIV/AIDS scores shown that 46.4% (178) participants had high discriminatory attitude and 53.6% (206) had low discriminatory attitude (shown in Figure 2)

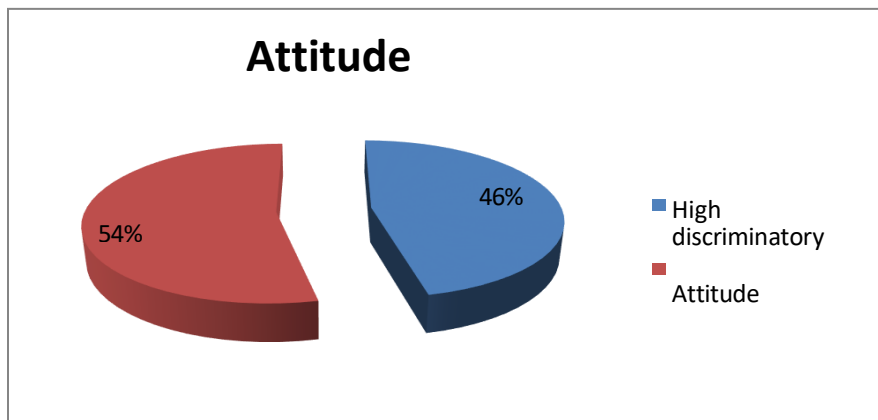


Figure2: Attitude Scores of Participants (n=384)

Section IV Table 4 demonstrates the practice of nurses for reducing the HIV/AIDS related stigma and discrimination. With regard to the practice, results showed that 182 (47.4%) of the nurses agreed that gloves are worn only for HIV patient. On the other hand, 321(83.6%) nurses were agreed that their hospital provided the protective equipment to prevent the spread of HIV/AIDS and 348(90.6%) nurses showed that people living with HIV/AIDS are labeled or marked on admission to prevent contagion of infection of the health workers.

Table 4: Practice of strategies for reducing HIV/AIDS- related stigma and discrimination (n=384)

Variable	Yes (%)	No (%)	Idon't know (%)
1-All patients are treated the same way in the ward environment ,that is all patients are assumed to be infected With HIV and hepatitis	203(52.9)	171(44.5)	10(2.6)
2-Clothesand equipments used by an HIV patient are disposed off or burnt	329(85.7)	39(10.2)	16(4.2)
3-Glovesare worn for only HIV-positive patients	182(47.4)	194(50.5)	8(2.1)
4-PeoplelivingwithHIV/AIDS are labeled or marked on admission to prevent contagion of infection of the health Workers	348(90.6)	23(6.0)	13(3.4)
5-Inmytraininghospital,spillsofbloodorbodyfluidsare decontaminated by0.5%NaCl solution	240(62.5)	90(23.7)	53(13.8)
6-Myhospitaloftraining provides protective equipment for Its health workers to prevent the spread of HIV/AIDS	321(83.6)	51(13.3)	12(3.1)
7-PeoplelivingwithHIV/AIDS are isolated and treated Separately in wards to reduce contagion	319(83.1)	50(13.0)	15(3.9)
8-Liquiddetergentandrunningwaterareusedfor hand Washing to prevent the spread of infection	328(85.4)	28(7.3)	28(7.3)

Mean Practice Score (MPS) of the participants was 5 with the standard deviation (SD) \pm 1.040. Based on the MPS the nurses level of practice was categorized into good practice (\geq 5) and poor practice ($<$ 5). Based on this overall practice of strategies for reducing HIV/AIDS related stigma and discrimination showed that 73 % (279) of participant nurses had good practice and 27% (105) had poor practice (ShowninFigure.3)

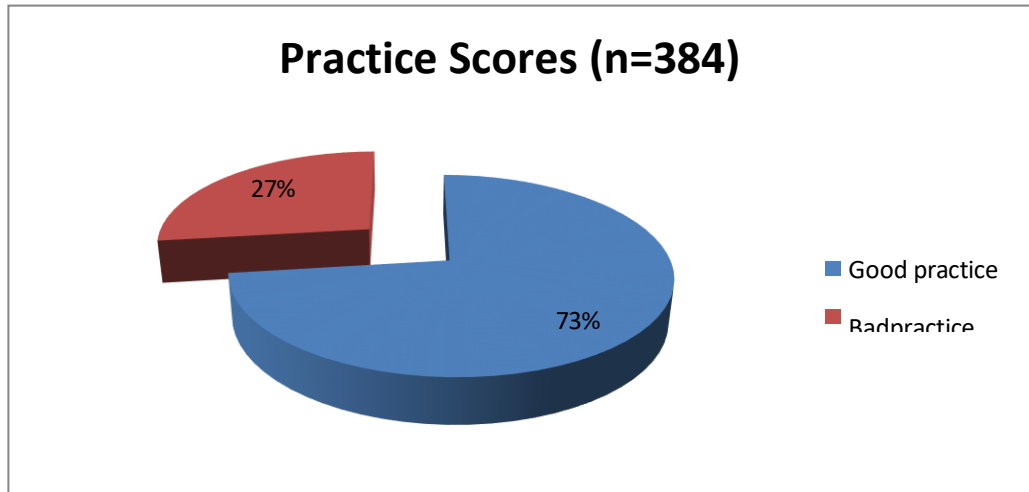


Figure3: Practice Scores of Participant Nurses (n=384)

Discussion

The goal of this study was to look into nurses' knowledge, attitudes, and practices aimed at reducing HIV/AIDS stigma and discrimination. Nursing is primarily a female-dominated profession, which is supported by the fact that all of the participants in this study were female nurses. This study revealed that about half of the participant's undergone previous training on HIV/AIDS related stigma and discrimination reduction. Similarly, another study also witnessed that just under half of the participants (47.1%) went through official HIV training (Vorasane, Jimba et al. 2017).

The results of this study showed that nurses' overall knowledge about strategies for reducing HIV/AIDS related stigma and discrimination was found good. This study's knowledge score match with that of another Pakistani study, but participants' readiness for effective treatment was lacking due to the fear of transmission that still exists in underdeveloped nations like Pakistan, where suitable safety measures for effective care are lacking (Hafeez, Riaz et al. 2017). The results on knowledge scores are also compatible with the study of Elamin and colleagues that revealed majority (68.2%) of participants had overall satisfactory knowledge (Elamin, Rajaa et al. 2019).

It has been noted that poor knowledge was the predictor of the stigmatizing attitude toward the HIV patients. A recent study assessed medical students' knowledge and views towards patients living with HIV/AIDS (PLWHIV) at Qassim University in Saudi Arabia. The results found limited knowledge, as well as negative views regarding PLWHIV indicating high stigma and discrimination in the health facilities of Saudia (Alawad, Alturki et al. 2019).

Education can play a significant role in reducing HIV/AIDS related stigma and discrimination. In this study, majority (90%) of the nurses emphasized on health education about the fact of HIV/AIDS helps in reducing the stigma and discrimination. Supporting this, an interventional study done on healthcare providers in Bangladesh also indicated that education on stigma reduction can improve the knowledge and attitude of the health care provider and boost up the satisfaction of service among the young people

(Geibel, Hossain et al. 2017).

This study found low discriminatory attitude among majority (53.6%) of the nurses. Findings are similar to another study conducted in Pakistan involving all health care workers including doctors and nurses (Khan and Bilal 2019). There are still health worker which highly discriminate the HIV/AIDS patient such as avoiding, refusing to do physical examination for the fear of contacting the HIV virus. Dong et al., found that majority (77.7%) of nurses had discriminated against patient living with HIV/AIDS in the process of providing medical attention. Most commonly reported forms of discrimination in this study, was forced detection, followed by differential treatment, disclosed information and refused treatment (Dong, Yang et al. 2018).

In the findings of this study majority of the nurses agreed that the patient should be screened for HIV/AIDS status when admitted to medical and surgical unit. This finding is similar to the finding the study done in the southwest Nigeria (Farotimi, Nwozichi et al. 2015).

The result of present study show that 203(52.9%) patients are treated the same way in the ward environment, that is, all patients are assumed to be infected with HIV and hepatitis. This result is in congruence with the study of Boakye & Mavhandu-Mudzusi in which Majority of the nurses 149(64.8%) and 144(59.5%) strongly agreed with the statements 'patients with HIV/AIDS have the right to the same quality of care as any other patient' and 'patients with HIV/AIDS should be treated with the same respect as any other patient' (Boakye and Mavhandu-Mudzusi 2019).

In our study based on this overall practice of strategies for reducing HIV/AIDS related stigma and discrimination showed that 73% of people had good practice and 27% had poor practice but in the study of Galal et al., reported that majority of health worker show some discriminatory practice when providing care to the HIV patient but the nurses showing the highest degree of discriminatory practices. Due to this reason the proportion of stigma and discrimination was high in healthcare facilities of Egypt (Galal, Khairy et al. 2022). Another study also show the high stigma and discrimination because the majority(74.4%) medical practitioner were discriminatory in their practices towards HIV patients(Elamin, Rajaa et al. 2019) Discriminatory practices were the most prevalent SAD indicator. Langi and their colleague reported that by over 80% of the HCWs Involved in health care delivery of the HIV patient, still revealed discrimination in their practice (Langi, Rahadi et al. 2022).

In our study 47.4% nurses reported that gloves are worn for only HIV-positive patients but in the previous literature this proportion is less than present study only 29.2% nurses believed that Gloves and gowns are required for any contact with patients with HIV/AIDS. This is because of poor knowledge about HIV transmission (Yadzir, Ramly et al. 2021).

On the other hand, some participant revealed by agreeing that patient living with HIV/AIDS should not be forced to pay for their medications, gloves, or other supplies like AIDS kit, as well as other infection-prevention materials. However It should be

highlighted that in order for health-care providers to be work effectively, They should be given the tools they need to do their duties well with sufficient stocks of necessary protection equipment as well as basic drugs As a result, when health care professionals are provided with adequate equipments, stigma and discrimination of patient living with HIV/AIDS reduces.

In our study 83.1% People living with HIV/AIDS are isolated and treated separately in wards to reduce contagion. This result reflects the discriminatory attitude of the nurses but the previous study does not support present study. Generally, our participants had a negative attitude about HIV/AIDS, only 10% and 15% of them agreed to live and work with a positive person respectively but, they (77.5%) were sympathetic towards patients and against isolating them from society(Wang, Wang et al. 2020)

In recent study 90% participant agreed that People living with HIV/AIDS are labeled or marked on admission to prevent contagion of infection of the health workers but this study is supported by HIV stigma and discrimination toward PLWHA by family and community members, as well as healthcare providers, is still present in families, communities, and healthcare facilities, as evidenced by avoidance of physical contact with PLWHA, rejection or unwillingness to treat them, separation of their personal belongings from those of others, and negative labels.

Conclusion

To overcome the Stigma and discrimination is very important to control the HIV/AIDS. The study was conducted at the Allied and DHQ hospital of the Faisalabad in order to assess the knowledge, attitude and practices of nurses regarding HIV/AIDS related stigma and discrimination reduction.

The overall results concluded that nurses have enough knowledge, low discriminatory attitudes and good practices regarding HIV/AIDS related stigma and discrimination reduction.

Recommendation

This study is done only in the two setup of the Faisalabad in which the mostly nurses have good knowledge, low discriminatory attitude and good practice. So it is recommended that we should involve the wider setup like community setting and rural health center to assess the knowledge, attitude and practices of nurses for the reduction of HIV/AIDS related stigma and discrimination.

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