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RESEARCH ARTICLE

ATTITUDES OF PRIMARY HEALTHCARE PROVIDERS TOWARDS EARLY DETECTED PATIENTS WITH HIV/AIDS IN NATIONAL GUARD PRIMARY HEALTH CARE CENTERS, JEDDAH CITY, SAUDI ARABIA, 2019: A CROSS-SECTIONAL STUDY.

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Abstract

Background: Patients with HIV/AIDS require ongoing health care services as they are potentially at increased risk of developing disorders, including cardiovascular and liver disease, accelerated bone loss, metabolic disorders. Despite strong evidence that had revealed there is no risk of HIV transmission if there is nonsexual contact with HIV patients, HIV patients used to be discriminated by the public and healthcare providers who fear to get the infection.

Objective of the study: To assess the attitudes of Primary healthcare providers towards early detected patients with HIV/AIDS in National Guard Primary Health Care Centers, Jeddah City.

Subjects and Methods: Through a cross-sectional design, the study had recruited 87 of healthcare providers who were actively practicing and working at National Guard Primary Health Care Centers, Jeddah City and fulfill the inclusion and exclusion criteria during the period from June 2019 until October 2019. Data collection carried out by questionnaire designed and revised by an expert panel of health professionals. An appropriate statistical test, such as the Chi-square test, was used to record the statistical significance between participants' answers and their demographic characteristics.

Results: According to the study design, 87 participants were included in the study; their mean age was 39 years that ranged between 22-58 years. 72 % of health care providers were physicians and the majority of all participants expressed their good attitudes towards patients with HIV with some poor attitude towards the fear of contagious (41%), working with HIV patients (36%) and readiness to care (32%). There are statistically significant (P-value <0.05) between participants' attitudes towards patients with HIV with level of education, years of experience, had training courses in caring and dealing with patients of HIV and job title of health care workers

Conclusion: These findings highlight a need for programs that promote the occupational safety of healthcare providers and the value of involving them in more advanced training courses in caring and dealing with patients of HIV.

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Introduction:-

The human immunodeficiency virus (HIV) weakens people's defense systems against infections and some types of cancer by attacking the cells of the immune system, particularly the CD4 cells (T cells).(1) Thus, leaving the body of the victim vulnerable to life-threating opportunistic infections, neurological disorders, or unusual malignancies.(2) Acquired immunodeficiency syndrome (AIDS) is the most advanced stage of HIV infection and defined by low CD4 cell count with the development of certain cancers, infections, or other severe clinical manifestations. (1)

By the end of 2018, more than 37.9 million individuals were living with HIV infection throughout the world. (1) On the other hand, Saudi Arabia remains within a low-HIV-prevalence country, and there are 21,761 of HIV cases were reported between 1984 and 2014.(3,4) Human immunodeficiency virus (HIV) detection is the cornerstone of the medical and public health response to the HIV epidemic.(5) HIV detection is accurate and sensitive, and precise assays have been designed for three general purposes: patient diagnosis and clinical management, epidemiologic surveillance, and donor screening for blood and tissue products.(6)

Patients with HIV/AIDS require ongoing health care services as they are potentially at increased risk of developing disorders, including cardiovascular and liver disease, accelerated bone loss, metabolic disorders. Also, HIV patients experience feelings of shame, fear of revealing, isolation, and hopelessness as results of stigma and discrimination, and these feelings affect their mental health. (7)

HIV patients used to be discriminated by the public and healthcare providers who fear to get the infection, especially laboratory technicians, general physicians, and nurses who spend more time with them. (8) Despite strong evidence that has revealed there is no risk of HIV transmission if there is nonsexual contact with HIV patients and also taking careful precautions while working with blood products of these patients.(9) The result of such a negative attitude may lead to poor management of people with HIV/AIDS who need the most care, treatment, and support.(10) To reach wanted healthcare for these patients is only possible by maintaining a positive attitude towards them in healthcare professionals.

Up to now, different studies have conducted in developed and developing countries on the attitude of healthcare providers towards patients with HIV. Still, little known from Saudi Arabia as a religious country where the study about HIV/AIDS could regard as a sensitive topic. The present study aimed to maintain a positive attitude that should deliver by highly personalized management for people with HIV/AIDS who need the most support. care, treatment.

Research Methodology: -

Objective:

To assess the attitudes of Primary healthcare providers towards early detected patients with HIV/AIDS in National Guard Primary Health Care Centers, Jeddah City.

Study design:-

The research design was a cross-sectional study.

Study setting:-

The current study was carried out in Jeddah, which is the second-largest city in the Kingdom of Saudi Arabia after the capital Riyadh and is considered the main seaport of the Kingdom. The National Guard Health Affairs in Jeddah, through the preventive services provided by the Department of Primary Health Care that aimed at reducing the burden of Sexual Transmitted Diseases either by outpatient clinics of different Primary health care centers or by community-based services and occupation health.

Population: -

The study had recruited the health care providers who met the inclusion criteria as the following:

1. Health care providers who were actively practicing and working at National Guard Health Affairs in Jeddah under the Department of Primary Health Care.
2. Health care providers who were involved in the following programs of preventive services:
3. Infection control program that used to report the cases and perform epidemic investigations.
4. Premarital investigations that include screening of HIV.

5. Antenatal care investigations that include screening of HIV.
6. Preventive medicine clinic program to do screening and counseling for patients at risk of HIV.

On the other hand, the Exclusion criteria were as the following:-
Health care providers who were not working with preventive services programs of the Primary Health Care Department.

Sample size and Sampling process:
Through the systematic random sampling, 87 of health care providers from 112 the total number of the health care providers who met the inclusion and exclusion criteria had recruited in the present study at 5% margin of error and confidence level of 95%.
Using the database available in the health information unit of the Primary Health Care Department, a list of participants was prepared after filtering and exclusion of those who did not fulfill the inclusion criteria; this list was used as a matrix to determine the sample through systematic random sampling. According to the sample size and population of the study, every 2 eligible participants (112/87) was selected and invited to be enrolled in the study. Participants had received an electronic self-administered questioner to fill it. Sampling continued until completing the required sample size.

Data collection:
Questionnaire:
The questionnaire was revised by an expert panel of consultants of public health, family and preventive medicine, health informatics, and health administration to ensure the face and content validity. The Cronbach alpha coefficient was 0.8, indicating good reliability
The questionnaire of this study was consisted of two sections:
1. The first section included seven sociodemographic questions (Age, gender, level of education, job title, length of practice and if the health care providers had training courses in caring and dealing with patients of HIV)
2. The second section included 20 main items included five-point Likert scale questions regarding attitudes of Primary healthcare providers towards early detected patients with HIV/AIDS in five domains. However, the domains included the emotions toward people with HIV (six items/maximum scores 30); the caring of patients with HIV (five items/maximum scores 25); the effectiveness of care (three items/maximum scores 15); the fear of contagion (three items/maximum scores 15); and the readiness to care (three items/maximum scores 15). However, the total attitude score is 100 and the scores of each participant was calculated of each domain and for the all domains and had been categorized to three categories as the following:
    - Poor attitude if the calculated total score was in percentage less than 60 %
    - Good attitude if the calculated total score was in percentage from 60 to 80 %
    - Excellent attitude if the calculated total score was in percentage more than 80 %

Study Plan and Ethical consideration:
This research study planned to recruit health care providers who fulfill the criteria during the period from June 2019 until October 2019. Data collection had started after getting permission from the ethical and scientific committee of King Abdullah International Medical Research Center Ethics and Scientific Committee. The questionnaire was distributed after getting consent form from each participant. The participant confidentiality was also under keen observation, and the data was kept highly confidential along the course of the research.

Data management and statistical analysis: -
For the Data entry and statistical analysis, SPSS 20.0 statistical software package was used. Quality control performed at the stages of coding and data entry. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations, medians and inert-quartile range for quantitative variables. Chi-square test used to record the statistically Significant between participants' answers and their demographic characteristics.

Research Results: -

Characteristics of the study subjects:
According to the study design, 87 participants were included in the study; their mean age was 39 years that ranged between 22-58 years. Two-Third of them (66%) were male. Half of the participants had bachelor of science degree and also half of all participants had more than ten years of medical experience and practice. (Table 1).

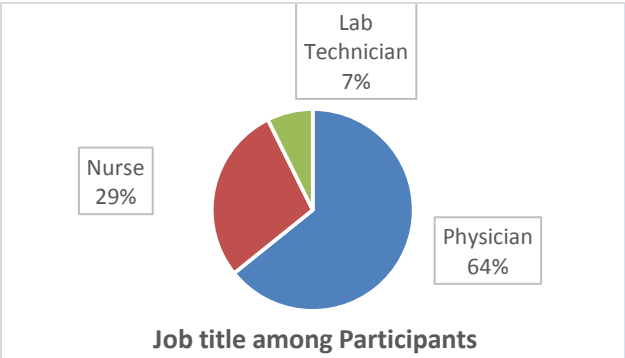
Figure 2 indicates that 72 % of health care providers were physicians and 54 % of participants had training courses in caring and dealing with patients of HIV. In regards to the participants' attitudes towards patients with HIV, (Table 2) shows that the majority expressed their good attitudes towards patients with HIV with some poor attitude towards the fear of contagious (41%), working with HIV patients (36%) and readiness to care (32%).

Relation between participants' attitudes towards patients with HIV and their demographic characteristics:
Table 3 demonstrates the absence of any association with statistical significance between participants' attitudes and their ages, on other hand, there are statistically significant (P-value <0.05) between participants' attitudes towards patients with HIV and level of education, years of experience, had training courses in caring and dealing with patients of HIV and job title of health care workers. Moreover, the means of total attitude score were high (> 70 of 100) among the heath care workers who were physicians, had at least master degree, those who had years of experience more than ten years and who had training courses in caring and dealing with patients of HIV.

Table 1:- General characteristics of the Participants (n=87).

Demographic characteristics	**Frequency**	**Percent**
Age		
20 - 30	32	36.8
31 - 40	29	33.3
More than 41	26	29.9
Range	22-58 years	
Mean ± SD*	39 ± 13 years	
Gender		
Male	45	62
Female	33	38
Level of Education		
Diploma	7	8
Bachelor	40	46
Master Degree	26	30
PHD Degree	14	16
Years of experience		
0 - 5	6	7
6 - 10	33	38
More than 10	48	55

*SD, standard deviation.



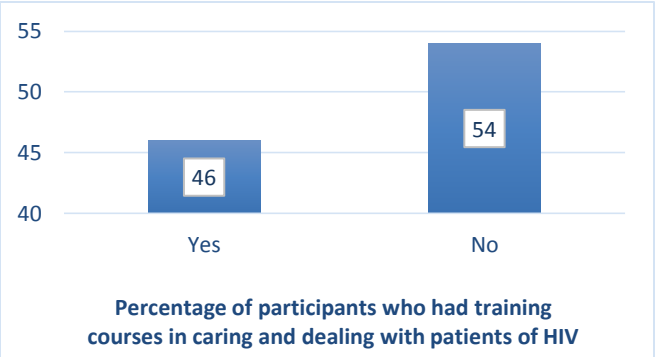


Figure 1:- Percentage of health care providers with different job title and percentage of them who had training courses in caring and dealing with patients of HIV

Table 2:- Attitudes of healthcare providers towards patients with HIV (n=87)

	Poor Attitude No (%)	Good Attitude No (%)	Excellent Attitude No (%)
○ **Emotions towards people with AIDS/HIV**	20 (23)	61(70)	6(7)
○ **Working with AIDS/HIV patient**	31(36)	46(53)	10(11)
○ **Effectiveness of care**	12(14)	61(70)	14(16)
○ **Fear of contagion**	35(41)	52(59)	Zero
○ **Readiness to care**	27(32)	53(60)	7(8)

Table 3:- Relation between participants' total score of attitudes and their demographic characteristics (n=87)

Demographic characteristics	Attitude score (max=100)	Chi-square Test	p-value
	Mean		
Age			
20 - 30	63		
31 - 40	72		
More than 41	67.3	6.5	1.165
Educational level			
Diploma	57		
Bachelor	63		
Master Degree	70		
PHD Degree	79	74.5	0.01*
Years of Experience			
0 - 5	67		
6 - 10	61		
More than 10	71.4	13.6	0.009*
Job Title			
Physician	72.8		
Nurse	58		
Lab Technician	61	59.6	0.001*
Had training courses in caring and dealing with patients of HIV?			
Yes	71.65		
No	63.6	33.6	0.017*

(*) Statistically significant at $p<0.05$

Discussion: -

The present study assessed the attitudes of Primary healthcare providers towards early detected patients with HIV/AIDS in National Guard Primary Health Care Centers, Jeddah City. Overall, the findings of this study suggested a good attitude toward patients of HIV. However, this finding is similar to the results of another study (11) but contrary to what was found in a study from Nigeria. (12) These differences in attitudes might be attributed to the cultural background of the population that reflects on the healthcare providers.

This study showed that healthcare providers had low scores in attitude that related to working with HIV patients compared with other domains of attitude. This is maybe justified by that, most of the healthcare providers had not notified of HIV/AIDS positive patient and if they notified either by using paper or paperless (electronic) alarm so, they might apply better emotional and protective measures. (13)

The other finding in this study is that most of the healthcare providers believed that the counseling and related treatment of patients with HIV may result in improving their quality of life. This is come in line with another study that revealed that these positive attitudes of healthcare providers might be likely due to their high length of practice in caring and dealing with HIV patients and supported with having high level of education and attended educational courses of caring of HIV patients. (14)

The present study indicated poor attitude towards the fear of contagious (41%), working with HIV patients (36%) and readiness to care (32%). The main reason stated was the fear of being infected while caring. Furthermore, this study showed that laboratory technicians were more feared of contagion while working with these patients but physicians were less worried to be infected. These differences might be due to their different knowledge and experiences regarding working with such patients. This finding is consistent with another study. (15)

Limitations of the study: -

Limitations of study can be summarized into: -

1. This study is cross-sectional design according to literature review a pre and post evaluation study design would be with better value
2. Study carried out in single- institute and multicenter approach may increase the sample size.

Conclusion: -

In conclusion, there was a good attitude among the Primary healthcare providers towards early detected patients with HIV/AIDS in National Guard Primary Health Care Centers and a number of misconceptions and negative attitudes toward HIV/AIDS were common. These findings highlight a need for programs that promote the occupational safety of healthcare providers and the value of involving them in more advanced training courses in caring and dealing with patients of HIV.

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