

Attitudes Regarding Human Papillomavirus and Cervical Cancer Among a Sample of Paramedical Staff in Al- Najaf Governorate, Iraq.

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Abstract

Background: HPV is one of the most prevalent a sexually transmitted infection (STI), involving both men and women, and 80 percent of individuals aged 50 years and older have reported developing genital HPV infection. **Objectives:** To determine the level of attitudes and practices regarding Human Papillomavirus and Cervical Cancer among a sample of para medical. **Subject and Methods:** This an observational descriptive cross-sectional study done at five hospitals and twenty-five primary health care centers in Al-Najaf governorate. The data collection continued for four months started from the period of 19th December 2021 ending on 18th April 2022. **Results:** The current study was conducted on (500) Para-medical staff with age group ranging from (20-59) years and the highest percentage (66.4%) were from (20-29) years age group. While in gender the highest percentage in female was (64.6%). Most of para-medical staff (90.8%) living in urban area. and also The greater number of participants were medical institute about (51.6%) from total number while the lowest percentage about (2.4%) from secondary school, only (2.4%) of para-medical staff had training about Human Papillomavirus and Cervical Cancer. The majority of studied sample had good practice score regarding human papillomavirus and cervical cancer. **Conclusion:** Most of studied samples (para-medical staff) had acceptable and good attitudes and practices scores. **Recommendation:** It is recommended to do National education programs on human papillomavirus and cervical cancer are needed to be presented to the public through cooperation between health authorities, society organizations and non-governmental organization.

Keywords: Human Papillomavirus and Cervical Cancer, attitude, para-medical staff and Najaf governorate.

1. Introduction

The HPV belongs to the Papillomaviridae family of small, non-enveloped, double-stranded DNA viruses, able to target epithelial cells of skin, oral and Anogenital mucosa [1]. There are multiple pathways for HPV transmission across different mucosal sites. They include autoinoculation within one host, and transmission between individuals. Interindividual transmission includes perinatal transmission, sexual transmission by various techniques of orogenital sex, deep kissing (French kissing, involving extensive or intensive contact of the inner lips, tongue, and teeth especially with prolonged or rhythmic tongue-to-tongue contact) and indirect transmission through contact with hands [2]. HPV can be transmitted vertically to neonates through breast feeding. Transmission just after delivery can occur via body to body contacts. High carriage rates of HPV DNA detected in oral samples from newborns decrease gradually during the first 3 years of life [2]. Almost a century has passed since the discovery of papillomaviruses. A few decades of research have given a wealth of information on the molecular biology of papillomaviruses. Several excellent studies have been performed looking at the long- and short-term evolution of these viruses. However, when and how papillomaviruses originate is still a mystery [3]. Prospective epidemiologic studies conducted in the late 1990s and 2000s established the temporal association between exposure to high-risk (HR) human papillomavirus (HPV) and the subsequent development of

cervical intraepithelial neoplasia (CIN) and cervical cancer. These data, combined with strong biological plausibility derived from the basic sciences, led to acceptance of HR-HPV as a necessary, but insufficient cause of nearly 100% of cervical cancers [4]. Cervical cancer prevention includes primary, secondary, and tertiary level activities. Health education and vaccination against HPV infection are components of primary prevention, whereas secondary prevention focuses on early detection [5]. Cervical carcinoma arises from normal cervical epithelium through the progressive development of low grade and high grade cervical intraepithelial lesions (CINs), where hr-HPV infection plays a major causative role. The hr-HPV infection into the cervical epithelium results in host genome alterations, leading to the silencing of various tumor-suppressor factors on one hand, and inducing aberrant functioning of various tumor-promoting factors on the other [6]. The imbalance and instability caused by various hr-HPV-derived oncogenic factors into the host genome of the cervical epithelial cells drive neoplastic progression over the course of years. However, the severity of the outcomes towards CC development depends on the specific subtypes of the HPV. To date, 216 subtypes of HPV have been identified and categorized as low, medium, and high-risk types [7].

Objective of study: To determine the level of attitudes regarding Human Papillomavirus and Cervical Cancer among a sample of para-medical.

2. Subject and Methods

Study Design: This an observational descriptive cross-Received: 18.04.22, Revised: 17.05.22, Accepted: 19.08.22

sectional study done at five hospitals and twenty five primary health care centers in Al-Najaf governorate.

Place of Study: In Al-Najaf governorate is a city in central Iraq about 160 km (100 mi) south of Baghdad. Its estimated population in 2017 was 1,500,522 people. The area of Al-Najaf is about 28,824 square kilometers.

Time of Study: The data collection continued for four months started from the period of 19th December, 2021 ending on 18th April, 2022.

Inclusion and Exclusion Criteria of Study: Inclusion Criteria: Randomly selected Para-medical staff from five hospitals and twenty-five primary health care centers in Al-Najaf governorate.

Exclusion Criteria: Physicians, dentists and pharmacists doctors, Administrators staff, Para-medical staff who refuse to participate in the study, Para-medical staff work

over night, Para-medical staff don't know the term nosocomial infection.

Statistical Analysis: Analysis of data was carried out using the available statistical package of SPSS-28 (Statistical Packages for Social Sciences- version 28). Data were presented in simple measures of frequency, percentage, mean, standard deviation, and range (minimum-maximum values). The significance of difference of different percentages (qualitative data) were tested using Pearson Chi-square test (χ^2 -test) with application of Yate's correction or Fisher Exact test whenever applicable. Statistical significance was considered whenever the P value was equal or less than 0.05.

3. Results

Table (1) Distribution of paramedical staff sample according to socio-demographic characteristics.

Socio-demographic characteristics.		No	%
Age (years)	20---29	332	66.4
	30---39	97	19.4
	40---49	50	10.0
	50---59 years	21	4.2
	Mean±SD (Range)	29.9±8.3 (20-59)	
Gender	Male	177	35.4
	Female	323	64.6
Marital status	Unmarried (single)	163	32.6
	Married	327	65.4
	Divorced/Widowed	10	2.0
Residence	Rural	46	9.2
	Urban	454	90.8
Period of employment	1---4	258	51.6
	5---9	101	20.2
	10---14	53	10.6
	15---19	23	4.6
	=>20years	65	13.0
	Mean±SD (Range)	7.7±7.8 (1-33)	
Educational level	Secondary school	12	2.4
	Diploma	258	51.6
	Bachelor & higher	230	46.0
Professional level	Med Tech College Graduate	126	25.2
	Medical assistant	137	27.4
	Nursing College Graduate	50	10.0
	Pharmacist Assistant	25	5.0
	Laboratory Assistant	99	19.8
	Nurse	25	5.0
	Radiographer	19	3.8
Health institution working in	Hospital	199	39.8
	PHC center	301	60.2
Have you entered training courses or workshops	No	488	97.6
	Yes	12	2.4
How many times	1	12	
How many days	3	4	
	5	8	

The study contains (500) of Para-medical staff gathering from 5 hospitals and 25 primary health care centers in Al-Najaf governorate. Table (1) shows the socio-demographic characteristics of para-medical staff. According to the age group ranging from (20-59) years old, the highest percentage (66.4%) were from (20-29) years and the lowest percentage (4.2%) in age group (50-59) years. While in gender the highest percentage in

female was (64.6%) but the lowest percentage (35.4%) in male. and marital status of para-medical staff (65.4%) were married, (32.6%) were single and the lowest percentage (2.0%) were divorced/widowed. Most of para-medical staff (90.8%) living in urban area and only (9.2%) was living in a rural area Also The greater number of participants were medical institute about (51.6%) from total number while the lowest percentage about (2.4%)

from secondary school. Related to professional level, the highest percentage (27.4%) were medical assistant, (25.2%) medical technical college, (19.8%) Laboratory Assistant, (10%) Nursing College Graduate, (5%) Pharmacist Assistant and Nurse, (3.8%) Radiographer and others (Science collage, Anesthesia collage). the period of experience, the majority of participants in the study had (1-4) years was (51.6%) and the lowest percentage (4.6%)

in (15-19) years. While regarding the health institution the highest percentage (60.2%) from primary health care centers, and the low percentage (39.8%) from hospitals. Lastly, training courses or workshops on the subject (97.6%) were not entered training courses or workshops on the subject, while (2.4%) was entered training courses or workshops on the subject.

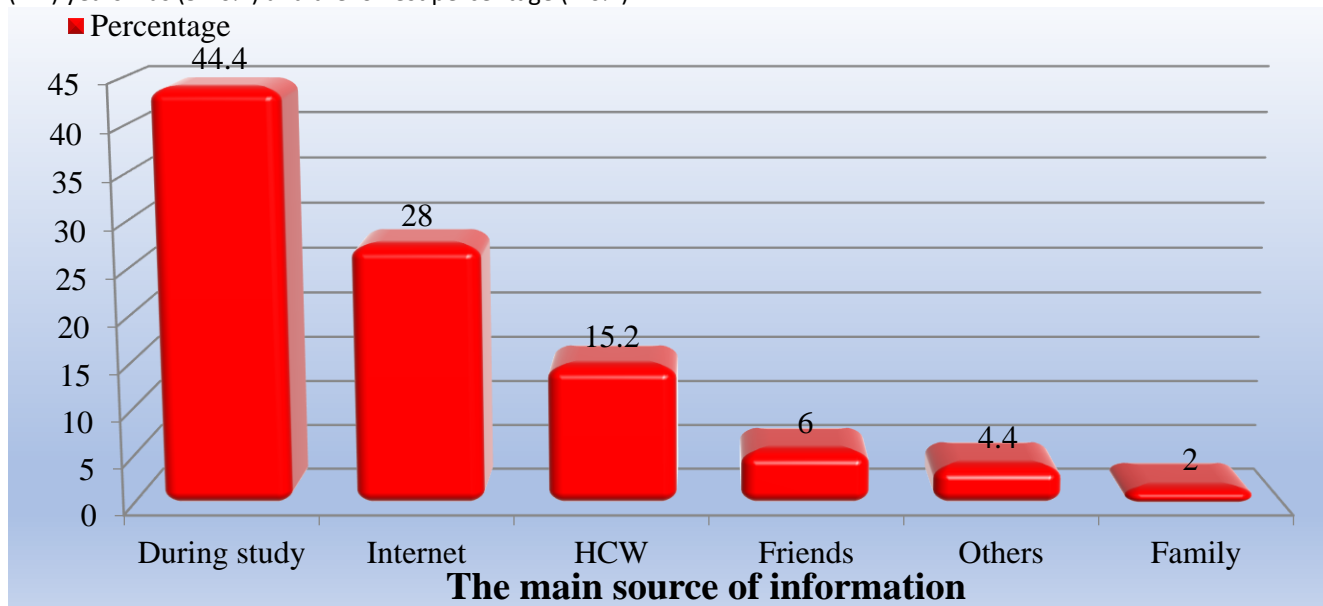


Figure (1): The Distribution of Studied Sample According to Their Sources of Information Regarding HPV & Cervical cancer.

Part III: Attitude	Agree		Disagree		Not sure	
	No.	%	No.	%	No.	%
Think that education on HPV & Cervical cancer better started at primary school	353	70.6	94	18.8	53	10.6
Think that condom prevents HPV virus equally as it prevents HIV transmission	242	48.4	90	18.0	168	33.6
Think that a simple screening test (pap smear) can be done to diagnose Cervical cancer	370	74.0	50	10.0	80	16.0
Think that having only one sex partner decreases the risk of acquiring HPV infection	350	70.0	49	9.8	101	20.2
Think that HPV vaccine & sexual protection are good preventive measure	366	73.2	29	5.8	105	21.0
Think that HPV vaccine can prevent the development of genital warts & Cervical cancer	279	55.8	50	10.0	171	34.2
Think that HPV vaccine is safe	249	49.8	56	11.2	195	39.0
Think that people will be stigmatized as promiscuous for having been infected with HPV (Disagree)	146	29.2	171	34.2	183	36.6
Think that daughters (or the girls themselves) will be stigmatized as promiscuous if they have received HPV vaccination (Disagree)	109	21.8	247	49.4	144	28.8
Think that HPV vaccine is delivered in a series of 3 shots injection over 6month schedule	116	23.2	62	12.4	322	64.4
Think that women who have undergone HPV vaccination do not need pap test later in life (Disagree)	86	17.2	228	45.6	186	37.2
Think that Cervical cancer can be cured if diagnosed at an early stage and treated promptly	354	70.8	47	9.4	99	19.8
Think that one can have Cervical cancer through unsafe sexual practice	331	66.2	54	10.8	115	23.0
Think that Cervical cancer cannot lead to infertility if left untreated (Disagree)	204	40.8	161	32.2	135	27.0
Think that all female are at risk of having Cervical cancer	270	54.0	100	20.0	130	26.0

The attitudes of studied sample towards HPV and cervical cancer, has been shown in Table (4-7), 70.6% of paramedical staff agreed that (education on HPV & Cervical cancer better started at primary school), while 48.4% of them agreed that (condom prevents HPV virus equally as it prevents HIV transmission). In addition 74.0% of them agreed that (a simple screening test (pap smear) can be done to diagnose Cervical cancer). 70.0% of studied sample agreed that (having only one sex partner decreases the risk of acquiring HPV infection). Approximately 73.2% of them agreed that (HPV vaccine & sexual protection are good preventive measure), while 55.8% of them agreed that (HPV vaccine can prevent the

development of genital warts & Cervical cancer). 49.8% of them agreed that (HPV vaccine is safe), while 34.2% of them disagreed that (people will be stigmatized as promiscuous for having been infected with HPV (Disagree)), while 49.4% of paramedical staff disagreed about (daughters (or the girls themselves) will be stigmatized as promiscuous if they have received HPV vaccination (Disagree)), 23.2% of them agreed that (Think that HPV vaccine is delivered in a series of 3 shots injection over 6 month schedule), 45.6% of them disagreed that (women who have undergone HPV vaccination do not need pap test later in life (Disagree)), while 70.8%, 66.2% and 54.0% of paramedical staff agreed

that (Cervical cancer can be cured if diagnosed at an early stage and treated promptly), (one can have Cervical cancer through unsafe sexual practice) and (all female are

at risk of having Cervical cancer). while 32.2% of paramedical staff disagreed that (Cervical cancer cannot lead to infertility if left untreated (Disagree)).

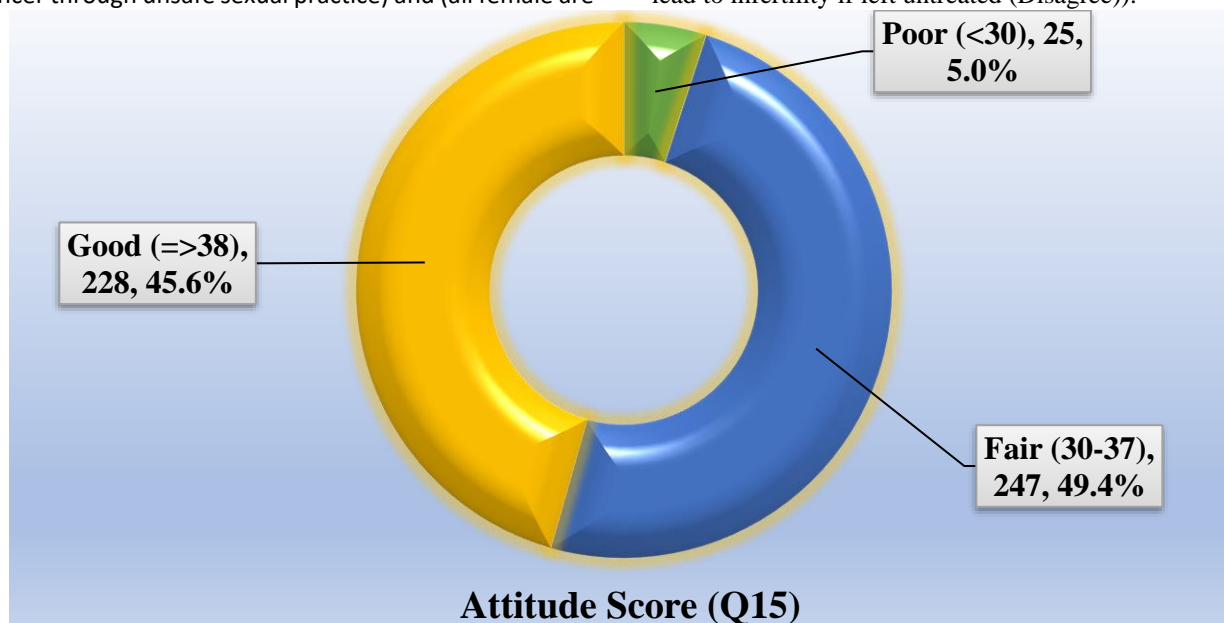


Figure (2) HPV & Cervical cancer Attitude score.

4. Discussion

The study contains numbers of socio-demographic information about paramedical staff found in table (4-1), the highest percentage of age group (20-29 years) was (66.4%) and the lowest percentage was (4.2%) in the age group (50-59). This result agrees with study done in Baghdad Teaching Hospitals (55.26%) done by (Al-Sarray.,2019). And disagrees with a study in south India was (15.33) done by [8]. There are two likely reasons for this difference either, in recent past years, the enrolment at the Iraqi Ministry of Health increased, which led to an increase in youth of these ages or the inclination of Indian society for social work round these ages. More participants in this study was female (64.6%), while male was (35.4%). In comparison with some neighboring countries, these are similar to what had been reported in India by [9] (58.2%) of results were female and also Majority (71.6%) of the participants was females done by [10] in India. This will be explained by that the females participant were having more interesting to participate. The study was observed (32.6%) single paramedical staff, the higher percentage (65.4%) were married and (2% widow and divorced), this result disagrees with the study result done in Iran by [11] and in Pakistan by [12] which shows that majority of the students were single (81.5%), (68%) respectively. The difference may be due to that the study was conducted in Pakistan was on students who were younger than 24 years old, so the majority of the sample was unmarried, while the current study was on health workers and their ages ranged between 22 to 63 years, so the majority were married. In the present study, according to residence of para-medical staff approximately (90.8%) was urban area and (9.2%) was rural area will be disagrees with what had been reports in study done in India by [8], which recorded (36%) was urban and (64%) was rural. This deference will be due to that the rural part of Iraqi people will not

complete their study so the majority will be urban participant.

The study finding of this study regarding attitude of paramedical staff about Attitude towards Human Papillomavirus & Cervical cancer. demonstrates that a good percentage (70.6%) of paramedical staff agree that "(Think that education on HPV & Cervical cancer better started at primary school)". and this study result will agree with study in Baghdad teaching hospital done by [13] that also shows that a high percentage about (83.22%) of paramedical staff will agree to the same point. Relative to second question which tells that "(Think that condom prevents HPV virus equally as it prevents HIV transmission)" the percentage of about (48.4%) of paramedical staff had an disagreement to this point of our study and this result different (18.4%) with study in Turkey hospital in Zambia [14]. The difference may be related to variation in the sample size. About the third question which include (Think that a simple screening test (pap smear) can be done to diagnose Cervical cancer) the higher percentage of about (74.0%) of para-medical staff had an agreement to this point of this study and this result different with study that done in Karachi, Pakistan by [15] in which most of participant (63.3%) was not sure about the same point. About explaining the result of the next question in the table which had include (Think that having only one sex partner decreases the risk of acquiring HPV infection) the percentage of about (70.0%) of paramedical staff had an agreement to this point of our study and this result will be similar with study that done in Gondar town, North West Ethiopia by [16] in which the higher percentage of participant (73.9%) was not sure about the same point. Regarding the results of the questions in the table which had include (Think that HPV vaccine & sexual protection are good preventive measure) the percentage of about (73.2%) of paramedical staff had an agreement to this points of our study and this results was similar with the result of study that

done in Baghdad Teaching Hospital by [13] in which most of participant (50.3%) agrees about the same point. And also the result of this question (Think that HPV vaccine can prevent the development of genital warts & Cervical cancer), the percentage of about (55.8%) of para-medical staff had an agreement to this points of the study and this results is deferent with the result of study that done in Baghdad Teaching Hospital by [13] the percentage of participant (52.96%) agree to the same point. About explaining the result of the question in the table which had include (do Think that one can have Cervical cancer through unsafe sexual practice) the percentage of about (66.2%) of para-medical staff had an agreement to this point of this study and this result was not similar with study that done in Hossana Town, Hadiya zone, Southern Ethiopia by [17] in which the percentage of participant (42.5%) was not sure about the same point . this deference may be due to that the sample size in this study is larger than Ethiopia study sample. According the result of the question in the table that include (Think that women who have undergone HPV vaccination do not need pap test later in life (Disagree)) the percentage of about (45.6%) of para-medical staff had a disagreement to this point of the study and this result was similar with study that done in Karachi, Pakistan by [15] in which the percentage of participant (50.3%) were not sure about the same point. This deference may be due to The educational level is more in this study participant than Pakistan particip. Regarding the result of the question in the table which had include (Think that all female are at risk of having Cervical cancer) the percentage of about (54.0%) of para-medical staff had an agreement to this point of this study and this result was deferent with study that done in Karachi, Pakistan by [15] in which the percentage of participant (38.7%) disagree about the same point. and the reason for this difference may be due to the difference in societies or due to the time of the study.

5. Conclusion

Most of studied samples (para-medical staff) had acceptable and good attitudes and practices scores.

Recommendation: It is recommended to do National education programs on human papillomavirus and cervical cancer are needed to be presented to the public through cooperation between health authorities, society organizations and non-governmental organization.

Resources

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