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VALIDITY AND RELIABILITY OF THE TOOL TO ASSESS THE AWARENESS ON HUMAN PAPILLOMA VIRUS VACCINATION AMONG NURSING PROFESSIONAL

Medical Science

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ABSTRACT

The Validity & Reliability of the tool to assess the awareness on Human Papilloma Virus vaccination among Nursing Professionals was elicited using content validity index (CVI) & split half technique. CVI was checked by 5 subject experts and 67 samples were selected through convenience sampling technique to check the reliability.The tool developed and used for data collection was, a structured interview questionnaire which consists of two sections, section A deals on demographic variables and Section B consists of 20 questions of awareness on Human Papilloma Virus vaccination.

The content validation index was 95 %. The reliability('r'value) by using split half technique was 0.9. There was highly positive correlation between 1st half and 2nd half of awareness scores regarding Human Papilloma Virus vaccination. Hence the 'r' value shows that the tool is highly reliable to assess the awareness on Human Papilloma Virus vaccination among Nursing Professionals, therefore can be used by health care personnel in their research studies and also for routine administration in the patient care areas to know the awareness of Human Papilloma Virus vaccination.

KEYWORDS:

Human Papilloma Virus vaccination, Validity, Reliability.

INTRODUCTON

According to WHO (2016) Human Papillomavirus (HPV) is the most common viral infection of the reproductive tract. Most sexually active women and men will be infected at some point in their lives and some may be repeatedly infected. The peak time for acquiring infection for both women and men is shortly after becoming sexually active. HPV is sexually transmitted, but penetrative sex is not required for transmission. Skin-to-skin genital contact is a well-recognized mode of transmission.

According to American Cancer Society (2014) there are vaccines that can be used to prevent infection with certain types of HPV. All HPV vaccines help prevent infections with HPV types 16 and 18, and some protect against other types, including types that can cause anal and genital warts. There are vaccines approved for use in males and females. They can only be used to prevent HPV infection – they don't help treat an existing infection. To work best, the vaccines should be given at or before age 11 or 12.

According to Institut Català d'Oncologia (ICO) Information Centre on HPV and Cancer (October 7, 2016) India has a population of 453.02 million women ages 15 years and older who are at risk of developing cervical cancer. Current estimates indicate that every year 122844 women are diagnosed with cervical cancer and 67477 die from the disease. Cervical cancer ranks as the 2nd most frequent cancer among women in India and the 2nd most frequent cancer among women between 15 and 44 years of age. About 5.0% of women in the general population are estimated to harbour cervical HPV-16/18 infection at a given time, and 82.7% of invasive cervical cancers are attributed to HPVs 16 or 18.

All India Institute of Medical Sciences (AIIMS) in New Delhi, India states that although a wide spectrum of HPV is seen across India, HPV-16 and HPV- 18 are the most common types and a vaccine targeting these types could eliminate 75% of cervical cancers in the country

Siddharthar, J., Rajkumar, B., & Deivasigamani, K. (2014). Conducted a cross sectional survey of women attending Gynecology Out-Patient Department (OPD) **in a tertiary care hospital, Puducherry**. Information about their knowledge of cervical cancer, awareness of its prevention and their socio demographic characters were collected. Majority (389, 97.2%) were not aware of vaccination as prevention for cervical cancer.

The above literature shows that people have poor awareness on Human Papilloma Virus vaccination. Therefore if the Nurses were assessed on their awareness on Human papilloma Virus vaccination, there could be better awareness about the Human Papilloma Virus vaccines since they are the key person to disseminate the information to the public, thereby reducing the mortality.The need for a tool to assess the awareness on Humman Papilloma Vacination is perceived by the researcher and thus a tool is designed and its validity and reliability were checked & presented as follows.

PROBLEM STATEMENT

"Validity and Reliability of the tool to assess the awareness on Human Papilloma Virus vaccination among Nursing Professional in a selected hospital at Kancheepuram district, Tamilnadu, India."

STUDY OBJECTIVES

- To find the validity of the tool to assess the awareness on Human Papilloma Virus vaccination among nursing professional.
- To elicit the reliability of the tool to assess the awareness level on Human Papilloma Virus vaccination among nursing professional.

RESEARCH METHODOLOGY

The Validity & Reliability of the tool to assess the awareness on Human Papilloma Virus vaccination among Nursing Professionals was elicited using content validity index (CVI) & split half technique. CVI was checked by 5 subject experts and 67 samples were selected through convenience sampling technique to check the reliability.

RESEARCH TOOL (Enclosed at the end of the script)

- A Structured self administered questionnaire was designed for the study.
- The questionnaire consists of 20 knowledge questions on Human Papilloma Virus vaccination.
- **Method of Scoring:** There are 20 questions given in a questionnaire each correct answer carries '1' mark and for wrong answers '0' mark. Based on the score obtained by the samples they are categorized as follows: Adequate knowledge -76% and above, Moderately adequate knowledge- 51%to 75% & Inadequate knowledge- Less than 50%

Table: 1 Content validity index of the tool to assess the awareness on Human Papilloma Virus Vaccination among nursing professionals

RATER	SCORE (%) (n=20)	CONTENT VALIDITY INDEX (CVI)
1.	100%	95 %
2.	100 %	
3.	80 %	

4.	95 %	
5.	100 %	

Table: 1 depicts the content validity score from five subject experts & the content validity index calculated was of 95 %, which is highly valid.

Table 2 : Reliability of the tool to assess the awareness on Human Papilloma Virus Vaccination among Nursing Professionals. (n=67)

	x' value (First half of the tool, 10 questions)	y' value (Second half of the tool, 10 questions)	'r' value
Mean	**324.9**	**290.1**	**0.9**
Standard deviation	**2.2**	**2**	

The total number of questions in the tool was 20. The knowledge scores of the questions was split into first half and second half. The knowledge scores of the first half was (x) and the knowledge scores of the second half was (y).The mean value for first half (x) is 324.9 and mean value for second half (y) is 290.1. Therefore the 'r` value by using split half technique using the formula $r = \frac{(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})2(y-\bar{y})2}}$ is 0.9

A highly positive correlation between 1st half and 2nd half of awareness scores regarding Human Papilloma Virus Vaccination among Nursing professionals. Hence the 'r' value shows that the tool is highly reliable to assess the awareness on Human Papilloma Virus Vaccination among nursing professionals.

CONCLUSION

The tool designed by the researcher was simple and also found to be valid and highly reliable (r=0.9), therefore this tool can be used by the health care personnel in their research studies and also for routine administration in the patient care areas to know the awareness of Human Papilloma Virus vaccination.

Questions on Human Papilloma Virus Vaccination
Note: Choose the most appropriate answer (✔)

1- What is Human papilloma virus infection?
a) Sexually transmitted infection
b) Infection between skin to skin contacts
c) Infection from mother to baby

2- What are the causes of cervical cancer?
a) Alcohol abuse
b) Human Papilloma Virus infection
c) all of the above

3- What does Human papilloma virus vaccine do in our body?
a) Treats cervical cancer
b) Protects from Human papilloma virus
c) Treats Human papilloma virus infection

4- Which age is best to administer Human papilloma virus vaccine?
a) >9 years
b) 9-13 years
c) 35-45 years
d) <45 years

5- How many doses of Human papilloma virus are needed?
a) Single dose
b) Twice
c) Three

6- How long will the vaccine prevent Human papilloma virus infection?
a) Depends on the type of Human Papilloma Virus
b) Protection decreases with ageing
c) Depends on the loads of Human Papilloma Virus exposed

7- What may be the prevention percentage of cervical cancer in Human papilloma virus vaccine?
a) 100% protection
b) 75% protection
c) 50% protection

8- What are the side effects of Human papilloma virus vaccine?
a) Fever, nausea/vomiting, painful arms
b) Fever, cold, cough
c) Bronchospasm, diarrhea, headache.

9- What is the mechanism of action of Human papilloma virus vaccine?
a) neutralizes antibody response
b) Kills virus
c) Engulfs and digests the virus

10- Does Human papilloma virus vaccine is indicated during pregnancy?
a) Yes
b) Absolutely not
c) Can be given as per Physician's advice

11-whether males are eligible for Human papilloma virus vaccine?
a) Yes
b) No
c) Men doesn't need Human Papilloma Virus vaccine

12-At which age males can be vaccinated against Human papilloma virus?
a) 26-30 years
b) 11-12 years
c) < 40 years

13-Which type of cancer is possible in males due to Human papilloma virus?
a) Anal cancer
b) Penile cancer
c) Throat cancer
d) All of the above

14- Can Human Papilloma Virus vaccine be given on Human papilloma virus infected person?
a) Yes, it gives future immunity
b) No, it doesn't play any role in treating active infection
c) Yes, it provides cure to active infection
d) No, it is contraindicated with active infection

15- Who are more prone for cervical cancer from Human papilloma virus infection?
a) People with family history of cervical cancer
b) People with multiple sex partners
c) People with unhealthy lifestyle pattern
d) All of the above

16-Do women who have been vaccinated still need to be screened for cervical cancer?
a) Yes, routine screening is needed
b) No, they are completely free from cervical cancer
c) Yes only if Human papilloma virus symptoms appear

17- Why are Human papilloma virus vaccines important?
a) To reduce cervical cancer incidence
b) To reduce the need for invasive biopsies, screening of cervical cancer
c) Helps in reducing health care cost and anxiety related to follow up procedure of cervical cancer.
d) All of the above

18- Do you have any idea regarding Pap smear test?
a) Yes, but not confident
b) No, not at all
c) screening for cervical cancer
d) Screening for other type of cancer.

19- Do you feel the need to have Pap smear test?
a) Yes
b) No, I don't feel it necessary
c) Only if symptoms appear

20-what is the cost for Human papilloma virus vaccine?
a) Less than ₹1000

b) ₹1000-3000
c) ₹>3000

ANSWERS

1) a.	**2) c.**	**3) b.**	**4) b.**	**5) c.**
6) c.	7) a.	8) a.	9) a.	10) b.
11) a.	12) b.	13) d	14) b.	15) d.
16) c.	17) d.	18) c.	19) c.	20) c.

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