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Nurses' Knowledge, Attitudes And Practices Towards Patients With HIV/AIDS : An Educational Intervention Study In Andhra Pradesh

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Abstract

Literature related to nurses' knowledge, attitudes and practices on HIV/AIDS have revealed the lack of knowledge, negative attitude of the nurses which affects the performance in health care system, while providing patient care. The health care delivery to the victim is affected and leaves the patient and the nurse dissatisfied. The need for developing constructive relationship with patients, require that the health professionals put aside the negative feeling and remains non-judgemental and empathetic towards the HIV/AIDS patients.

The study was undertaken to identify the impact of the nurses knowledge, attitudes and practices towards the HIV/AIDs affected people at two stages. The first being the pre-intervention stage followed by educational intervention and then the post-intervention stage.

The study was conducted on 300 nurses at three selected government hospitals in Tirupati, Andhra Pradesh. Data was collected by means of a structured questionnaire and also KAP tests. Educational intervention package was implemented to assess the levels of change in KAP of nurses. The study has established a clear relationship between knowledge and attitudes, Knowledge and practices and also attitudes and practices at pre and post stages of intervention.

INTRODUCTION

In the 20th and 21st century the world has seen several infectious diseases and pandemic's which have been life threatening to humanity. Having battled several epidemics and even pandemics, just as we were beginning to feel safe due to the invention of vaccines and inoculations, a new disease emerged in the form of HIV/AIDS. The most saddening part of this development is that HIV/AIDS, does not have a vaccine to protect the human population. Further, the immediate family of the HIV/AIDS infected person, has to watch the person wither away and slowly die. This is the worst part of the HIV/AIDS life can be prolonged but not for

ever. Therefore all the more reason that human population learns how to deal with life threatening disease, by applying safe and secure health measures.

In India, the spread of HIV/AIDS is quite notable in the southern states, particularly Andhra Pradesh. The incidence of HIV/AIDS in Andhra Pradesh is 23.49 lakh in 2019. Several healthcare measures and protocols has been taught to health care professionals at ground level to enable them take up safety measures for themselves. Despite of this, India and Andhra Pradesh in particular has observed a steady rise in the spread of the disease

Since 2016 close to 40 million people including children have been living with HIV/AIDS as global health threat, fueling the spread of the disease especially in the African and Asian continents (UNAIDS,2017, World Bank,2004).

Significant progress in the treatment of disease, preventive care for transmission especially for the pregnant women has not really made a serious impact. Hence scale up operations, including prevention of mother-to-child transmission, have relatively lowered the prevalence rate especially in the Asian continent (UNAIDS, 2017). However India being the most populous country has to chalk out effective preventive strategy to deal with the AIDS pandemic. The stigma and social inhibitions continue to surround this disease leading to several untreated segments of population. This is deplorable.

According to NACO, 2019 report there were an estimated 23.45 lakh People Living with HIV/AIDS in India. As per the report Maharastra was the highest number of People Living with HIV (3.96 lakh), followed by Andhra Pradesh at 3.14 lakh , karnataka at 2.69 lakh.

Amongst all this the most relevant and important issue to be kept in mind is that the primary contact in the health care for the HIV patient is the ‘nurse’ . Hundreds of healthcare Workers (HCWs) are affected with Human Immunodeficiency Virus (HIV) due to occupational exposure to needle stick injuries each year (Puro etal, 2015). According to WHO, more than 3 million percutaneous occupational injuries occur annually among HCWs across the globe (Aminde, etal, 2015). Among HCWs, highest rates of occupational exposure to blood and body fluids were observed (Lamichenne, 2012). While doctors do have an important role in treating the patients, the major threat remains for the professional healthcare workers, therefore appropriate measures and techniques in the form of education, training, information sharing and effective communication would be of immense help to the HCWs.

Hence the present study has been conducted to assess the impact of knowledge in the form of an educational package and its benefits for the professional HCWs through their knowledge, attitudes and practices towards the patients.

Objectives

- To assess the knowledge of nurses on HIV/AIDS
- To know the attitudes of nurses on HIV/AIDS
- To identify practices followed by nurses towards HIV/AIDS
- To outline relationship between knowledge, attitudes and practices of nurses on HIV/AIDS

- To provide and study the impact of educational intervention on knowledge , attitudes and practices of nurses regarding HIV/AIDS.

Methods

A cross sectional study was conducted among 300 registered nurses of three government hospitals of Tirupati, Andhra Pradesh. Totally the nurses available in three most renowned hospitals were 879. Among them using purposive sampling method 300 nurses were selected from the three hospitals. (1/3 of the total nurses available in each hospital).

Data was collected using a self administered questionnaire for personnel and professional profiles of nurses and KAP tests to assess knowledge, attitudes and practices of nurses regarding HIV/AIDS infection. KAP tests were prepared after a thorough review of literature and based on the investigators field experience. The KAP draft tests were submitted to five experts for subject scrutiny. The experts' suggestions were incorporated and the tools were finalized for the pilot study. In developing these tests, the purpose, objectives and specific content of the AIDS educational intervention were considered.

As a part of the study AIDS Educational intervention was planned to assess its impact on the nurses. This includes a handbook manual and video film on HIV/AIDS. It was felt that integration of the print and electronic media in the present programme will contribute to the dissemination of concrete information to the nurses.

The pilot study was conducted to test the clarity of the item, ambiguity of the language, to test reliability and appropriateness of the scales, the practicability of the programme and feasibility of research design. Formal permission was obtained from the concerned authorities to conduct the pilot study on the subjects (thirty nurses) who were randomly selected for it. Pretest was conducted for 30 nursing staff, the personal and professional profile questions and HIV/AIDS knowledge, attitude and practice scales and other relevant information was collected. The pilot study was conducted for 3 days during which the knowledge, attitude and practices were carried out on the selected sample. Post test conducted thirty days after implementing educational intervention to study the impact of AIDS Educational Programme.

Using the pilot tested tools data pertaining to personal and professional profiles, KAP data was collected. The study period was divided by grouping the subjects into 15 batches, each batch 20 members. The pre-test was completed in a period of 12 weeks. The data was analysed in terms of the objectives of the study using both description and inferential statistics. Educational intervention was carried out for 12 weeks and 12 weeks for post-test.

Results

Personal and Professional profiles

More than sixty seven percent of nurses were in the age group of 21-40 years, 51.7 percent were General Nursing and Midwifery, 33.3 percent were B.Sc nursing and 15 percent were M.Sc Nursing. More than $3/4^{th}$ of the subjects (86.7%) were married. Majority of the sample was staff nurses (71.3%), around 70 percent of the nurses had upto 20 years of service, sixty

percent of them attended in-service training programes,79 percent of nurses know about availability of counselling centers

Table 1 Distribution of respondents according to their Personal and Professional profiles

SI. No.	Personal and Professional Profiles	Frequency (n)	Percent (%)
1	**Age**		
	21 to 30 years	62	20.7
	31 to 40 years	141	47.0
	41 to 50 years	89	29.6
	Above 50 years	8	2.7
	Total	**300**	**100**
2	**Religion**		
	Hindu	149	49.7
	Muslim	57	19.0
	Christian	94	31.3
	Total	**300**	**100**
3	**Educational qualification**		
	General nursing and Midwifery	155	51.7
	B.Sc. Nursing	100	33.3
	M.sc Nursing	4 5	15.0
	Total	**300**	**100**
4	**Occupation of the parents**		
	Govt. employee	92	30.7
	Private employee	110	36.7
	Cultivation	66	22.0
	Business	32	10.6
	Total	**300**	**100**
5	**Marital status**		
	Single	37	12.3
	Married	205	68.3
	Separate/Divorced	15	5.0
	Widowed	43	14.4
	Total	**300**	**100**
6	**Service in years**		
	1to 10 years	110	36.7
	11 to 20years	99	33.0
	21 to 30 years	66	22.0
	More than 30 years	25	8.3
	Total	**300**	**100**
7	**Designation**		

	Staff nurse	214	71.3
	Head nurse	86	28.7
	Total	300	100.0
8	**In-service training programmes attended**		
	Yes	178	59.3
	No	122	40.7
	Total	300	100.0
9	**Frequency of trainings attended by the nurses**		
	Once in two years	66	22.0
	Once in three years	126	42.0
	Once in four years	96	32.0
	More than four years	12	4.0
	Total	**300**	**100**
10	**Necessity of training**		
	Yes	139	46.3
	No	161	53.7
	Total	300	100.0
11	**Knowledge about counselling centers**		
	Yes	237	79.0
	No	63	21.0
	Total	300	100.0

Comparison of KAP interms of Mean and Standard Deviation

Table 2: Pre and Post test KAP scores of Nurses

S.No		Pre-test		Post-test	
		Mean	**SD**	**Mean**	**SD**
1	Knowledge	10.28	7.49	26.92	6.57
2	Attitude	36.70	8.51	46.04	5.35
3	Practices	40.06	5.40	51.74	5.25

The mean scores of the nurses knowledge, attitudes and practices at the post level have established a clear improvement in the performance even though there is an SD variation. Post -test practice scores were more homogeneous (SD: 5.25) when compared with Pre-test practices scores (SD: 5.40). For detailed analysis of results, the data was subjected to correlation, co-efficient to strengthen the outcome of the data analysis. So, correlation co-efficient between the knowledge, attitudes and practices were studied.

Table :3 Correlation co-efficient between pre-test and post-test knowledge and Attitudes of Nurses on HIV/AIDS

Nature of Test	Area	'r' value	Level of sig. of 0.05
PRE TEST	knowledge	0.373	**
	Attitudes		
POST TEST	knowledge	0.426	**
	Attitudes		

Table; 4 Correlation co-efficient between pre-test and post-test Attitudes and Practices of Nurses on HIV/AIDS

Nature of Test	Area	'r' value	Level of sig. of 0.05
PRE TEST	Attitudes	0.389	**
	Practices		
POST TEST	Attitudes	0.347	**
	Practices		

Table; 5 Correlation co-efficient between pre-test and post-test knowledge and Practices of Nurses on HIV/AIDS

Nature of Test	Area	'r' value	Level of sig. of 0.05
PRE TEST	Knowledge	0.371	**
	Practices		
POST TEST	Knowledge	0.259	**
	Practices		

The ‘r’ value in the table (3) both at the pre and post tests period have established an impact of knowledge on the attitude of the nurses in the handling of the HIV/AIDS affected people. The values in table (4) also reveals that the educational intervention had positive outcome for the knowledge levels, attitude towards patients and better practices while handling HIV/AIDS affected people. The impact of knowledge on attitude is visible, the affect of improved

knowledge on the practices adopted by the nurses was also notable (pre-test 'r'= 0.371 and post-test 'r'= 0.259).

Discussion

The personal and professional profiles of the nurses shows that, overall the nurses were professionally qualified, young and interested in the careers they had choosen to work. Healthcare sector being a vital component of service to the diseased and infected, regular training would help in greater efficiency of service. In this study a very happy and pleasant observation was that a majority of the subjects (96%). had regular in-service training programmes at shorter intervals (once in 2 years 22%; once in 3 years 42%; once in 4 years 32%). HIV/AIDS being a very life-threatening disease, there is every possibility of the patient/ patients families feeling disappointed, dejected and helpless. Hence regular counselling to the patient/ patients families would help them in coping with the situation in a better way. Over 79 percent of the nurses were well aware of the counselling centres. The personal and professional profiles of 300 subjects included in the study is quite encouraging. The nurses were educated, capable of providing suitable healthcare to the patients and also offer counselling.

Knowledge about health and health related issues play a vital role in maintaining health and preventing diseases. Enhancing people's knowledge through education and awareness often had an impact on their life skills and behaviour. Nurses are more receptive and explorative in acquiring knowledge pertaining to topics like HIV/AIDS. Hence, it is necessary to increase the knowledge of nurses, which has an influence on their attitudes and practices.

In this study also the subjects had indicated improved healthcare practices towards themselves and also towards patients. The educational intervention strategy for HCWs/nurses included a pre-tested and well structured educational material comprising of a manual video and interactive sessions between the researcher and the subjects. Relevant subject experts provided several useful inputs to bring out a comprehensive educational material. This intervention package was utilized by the subjects after pre-test stage. Post intervention the knowledge attitudes and practices of the nurses had significantly improved in several dimensions.

A clear relationship has been established between knowledge and attitudes levels at pre and post-test levels. Similarly the same was observed between knowledge and practices. Further attitudes also found to have a significant relationship between attitudes and practices.

conclusion

As it has been stated in several studies and again reiterated in this study knowledge has always being the most significant gain during assessment of any educational intervention strategy. However in this research piece knowledge did have significant influence on attitudes, such as a more empathetic attitude towards the HIV/AIDS patients. Also the healthcare practices of the subjects (nurses) were certainly influenced by attitudes and knowledge practices not just for the PLHIV, but also in the observation of safety protocols by the nurses for themselves to safeguard and protect themselves.

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