Cross Sectional Study of Knowledge about MR (Measles Rubella) Campaign in Medical and Nursing Students Studying at Civil Hospital, Ahmedabad.

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Abstract :

Introduction : India is committed to goal of Measles elimination and Rubella control by 2020, for this purpose MR vaccination campaign has implemented. **Objective:** To assess awareness of MR Campaign in medical and nursing students of civil hospital, Ahmedabad. **Methods:** This cross sectional study was conducted on medical and nursing students of civil hospital, Ahmedabad, Gujarat. Baseline knowledge of MR campaign, side effects of MR vaccine, was assessed by a self-administered structured questionnaire. Data analysis was done in Microsoft excel and chi square test was applied. **Results:** There were 222 respondents and among them 120 (54%) were medical students and 102 (46%) were nursing students, with male female ratio of 95:127. Awareness regarding MR Vaccination Campaign found significantly more in nursing students as compare to medical students whereas Medical students had more knowledge about MR vaccine as compared to nursing students. **Conclusion:** There is still gap in awareness of MR vaccination campaign among medical students. Field visits among nursing students have positive effects on awareness of nursing students.

Key words : Knowledge, Medical students, MR campaign, Nursing students

Introduction :

The Measles and Rubella (MR) campaign is an ambitious public health initiative of the Govt. of India to eliminate Measles by 2020 and control Rubella/Congenital Rubella Syndrome (CRS). It targets children in a wide age group between 9 months and 15 years. This was largest ever Measles Rubella campaign launched all over the world.[1] This campaign is a second opportunity for those children who were left out due to either vaccine failure or failure to vaccinate. High population immunity will then be sustained by follow-up campaigns and incorporation into routine immunization schedule at 9 months and 18–24 months.The MR vaccine has a robust safety and effectiveness profile. Under field conditions, seroconversion is 85% at 9 months and 95% at 12 months or more for Measles, and 95% at 9–12 months and more than 99% when given beyond 12 months for Rubella. Adverse reactions are generally mild and transient.[1]

For the MR campaign to be effective, it is important that no child be left behind. The current campaign is implemented through fixed sites sessions in schools and outreach centers.[1] Therefore, the teachers are relied on to convey the importance of vaccination.Vaccine hesitancy refers to delay in acceptance or refusal of vaccination despite availability of vaccination services [2] and it is critical to understand this period of indecision. In India, resistance to vaccination was due to ignorance in the past[3,4], though currently, the campaign on social media such as Whats App fuels a mix of conspiracy theories, safety concerns, and questions the need for the MR campaign.[5] Studies show that the messages are inconsistent and negative.This means that knowledge of medical and para-medical fraternity should be complete so that, they could pass the same message to the community. This study is done with the purpose of assessing the knowledge among the upcoming new generation of medical and para-medical fields.

Objectives:

1. To assess the awareness about MR Campaign among medical and nursing students.
2. To evaluate the knowledge about Measles and Rubella vaccine among the study participants.

Method :

A cross sectional study was conducted during August 2018 to October 2018. The study was carried out at August 2018 to October 2018 medical college and nursing school which were located civil hospital campus of Ahmedabad. A Total of 222 students (Third Year Part-1 Medical students =120 and Third Year B.Sc. Nursing students =102),(Male= 127, Female = 95) aged approximately 20-21years were included in the study by purposive sampling. Every student of the batch was included in study except those who were absent at the time of study. Those who didn't give informed consent were also not included in study. Data was collected by using structured questionnaire. The questionnaire included questions for assessing the knowledge regarding Measles-Rubella vaccination campaign, knowledge regarding Measles -Rubella vaccine and usefulness of this campaign. Positive results (YES) regarding awareness were they do know about MR campaign held in Gujarat from 16/7/2018 with the session site at school, anganwadi and outreach station, for children of 9 months to 15 years of age. Positive results (YES) regarding MR vaccine were they do know that live attenuated MR vaccine was given by sub-cutaneous route at right shoulder with 0.05 ml dose. Positive results (YES) regarding usefulness of the campaign were they do believe that this campaign would be helpful to eliminate Measles by 2020 and control Rubella/Congenital Rubella Syndrome (CRS).Positive results (YES) regarding combination of the vaccines were they do believe that both the vaccines used by this single campaign is excellent way to tackle both the disease at a time. The results were expressed in percentages represented by tables and Analysis was done by M.S. Excel 2007. Permission to carry out the research was obtained from Nursing school and Medical college authorities. As this study doesn't include active intervention, ethical permission wasn't required. Students were enrolled after obtaining informed consent and participation was purely voluntary and they were also assured that the study will not have any detrimental effect on the participant.

Results :

Table 1 shows awareness regarding campaign, which was 91.8% among medical students and 84.3% among nursing students. This difference was not statistically significant.

Only 32% medical students were aware of duration in which this campaign was ongoing while surprisingly 84.3% nursing students, were aware about campaign duration. This difference was statistically significant.(chi square = 63.4 with p value < 0.05) MR Vaccination was supposed to be given to eligible children (9 months to 15 years) at various sites like in the school, anganwadi and out-reach station. Knowledge about age group included in campaign was known to 56.6% medical students and 85.3% nursing students, This difference was statistically significant.(chi square = 63.4 with p value < 0.05) Nearly 41% medical students and 65.7% nursing students had awareness regarding session site of the campaign, This difference was statistically significant.(chi square = 13.58 with p value < 0.05)

Table 1: Awareness regarding MR Vaccination campaign

Awareness	Medical (N = 120)		Nursing (N = 102)		χ^2	p value
	YES (%)	NO (%)	YES (%)	NO (%)		
Campaign	112(91.8)	10(8.2)	86(84.3)	16(14.7)	2.45	> 0.05
Duration	38(32)	82(68)	86(84.3)	16(14.7)	63.4	< 0.05
Age- group	68(56.6)	52(43.4)	87(85.3)	15(14.7)	21.69	< 0.05
Session site	50(41)	70(59)	67(65.7)	35(34.5)	13.58	< 0.05

Table 2: Awareness regarding MR Vaccine

MR Vaccine	Medical (N = 120)		Nursing (N = 102)		χ^2	p value
	YES (%)	NO (%)	YES (%)	NO (%)		
Type	84(68.9)	36(31.1)	92(90.2)	10(9.8)	15.03	< 0.05
Dose	73(59.8)	47(40.2)	92(90.2)	10(9.8)	26.39	< 0.05
Route	91(74.5)	29(25.5)	70(68.6)	32(31.4)	0.97	> 0.05
Site	90(73.8)	30(26.2)	77(75.5)	25(24.5)	0.086	> 0.05

Table 3: Awareness regarding usefulness MR Vaccination campaign

Usefulness	Medical (N = 120)		Nursing (N = 102)		χ^2	p value
	YES (%)	NO (%)	YES (%)	NO (%)		
Campaign	50(41.8)	70(58.2)	82(80.4)	20(19.6)	34.29	< 0.05
Combination of Vaccine	12(11.5)	108(88.5)	37(36.3)	65(63.7)	19.42	< 0.05

The live attenuated strain of vaccine with the dose 0.05 ml and site at right shoulder by subcutaneous route used during the campaign. This knowledge was varying from 59.8% to 74.5% among medical students and from 25.5% to 40.2% among nursing students.(Table 2)

Table 3 shows that ,41.8% medical students and 80.4% nursing students were aware about usefulness of campaign. This difference was statistically significant (chi square = 34.29 with p value < 0.05). Only 11.5% medical students and 36.3 % nursing students, were aware about usefulness of vaccine combination. This difference was statistically significant (chi square = 19.42 with p value < 0.05).

Discussion:

In India, 49200 children Under 5 years of age died in 2015, most of them were not vaccinated by Measles vaccine. To combat this situation, India has committed the goal of Measles elimination and control of Rubella by 2020. The first phase of the MR vaccination campaign was launched in the states of Tamil Nadu, Karnataka, Goa and; in Puducherry and Lakshwadeep.[1]According to estimates, Tamil Nadu recorded the lowest coverage at 54%.[2] In Gujarat, this campaign was implemented on July 2018.[1]

In present study, awareness regarding campaign was higher (91.8%) among medical students as compared to nursing students (84.3%). In study by Mrs. Kirandeep Kaur et al, 53.3% of her study participants had moderately adequate knowledge about the campaign.[7]A knowledge assessed in an Egyptian University revealed that their students were generally poorly informed about both vaccine adverse effects, and contraindications although medical students tended to be better informed than other students.[8]For the MR campaign to be effective, it is important that no child be left behind. The current campaign is implemented through fixed sites sessions in schools and outreach centers.[1] Therefore, the teachers are relied on to convey the importance of vaccination.[7] Another study conducted by A Sreedevi et al shows similar results of vaccine hesitancy like this study[6].

MR Campaign is a part of global efforts to reduce illness and deaths due to Measles and Rubella/CRS in the country. Measles immunization directly contributes to the reduction of under-five child mortality, and in combination with Rubella vaccine, it will control Rubella and CRS. The aim of giving combination of vaccines during the campaign, was to prevent both the diseases by single session.[7]

Conclusion:

MR Vaccination campaign may have been more successful with better use of health education message especially in medical and para-medical personnel, As they are the bridge population between public and professional health team.

Declaration:

Funding: Nil

Conflict of interests: Nil

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