A study to assess the knowledge regarding post covid 19 vaccination complications among higher secondary School children's,Kanpur ,UP

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Abstract: A new coronavirus 2 (SARS-CoV-2) is the source of the severe acute respiratory condition known as COVID-19 (coronavirus disease 2019). The World Health Organization (WHO) identified it as "a public health emergency of worldwide concern" on January 30, 2020, and "a global pandemic" on March 12, 2020, after it first appeared in China in late December 2019.The focus of the COVID-19 pandemic is turning to younger generations as many nations move into a new management phase because younger generations are more likely to be affected by the pandemic's spread. The fact that the virus is now referred to as a "disease of the young" indicates the decrease in the average age of people who contact it.Research Design; Quasi-experimental one-group pre-test - post-test design. The study was conducted on higher secondary School children in Kanpur, Uttar Pradesh. The sample consists of 60 higher secondary School children in Kanpur; 60 subjects were selected using a non-probability convenient sampling technique.Out of the total study population, most of the samples, 39 (65%) are 13 -14 age, 30 (50%) are Female and male, 30 (50%) are 1st and 2nd year of higher secondary school, 37 (62%) are10001 – 15000 rs family income per month, 35 (58%) are the urban area of living.55 (92%) have inadequate knowledge in the pre-test and 5 (8%) in the post-test. 0 (0%) Adequate knowledge in the pre-test and 11 (18%), and 49 (82%) Moderately adequate knowledge in the post-test. The present study aims to assess the knowledge regarding post covid 19 vaccination complications among higher secondary school children. These findings showed that School children's knowledge increased significantly after the intervention. The mean knowledge in all aspects of improvement. The study's findings revealed a significant increase in the post-test knowledge score after administering the intervention. The difference between pre and post-test knowledge scores was highly significant.

Introduction: A new coronavirus 2 (SARS-CoV-2) is the source of the severe acute respiratory condition known as COVID-19 (coronavirus disease 2019). The World Health Organization (WHO) identified it as "a public health emergency of worldwide concern" on January 30, 2020, and "a global pandemic" on March 12, 2020, after it first appeared in China in late December 2019. The focus of the COVID-19 pandemic is turning to younger generations as many nations move into a new management phase because younger generations are more likely to be affected by the pandemic's spread. The fact that the virus is now referred to as a "disease of the young" indicates the decrease in the average age of people who contact it.

The clinical signs are of SARS-CoV-2 infection highly variable. While some persons with the illness have no symptoms, others may experience mild to moderate symptoms. In contrast, still, others

may need urgent care support or even pass away, especially elderly people. The Food and Drug Administration (FDA) has approved certain pharmaceutical treatment options to assist in managingTo help restrict the spread and reduce the likelihood of recurrence, preventive care such as vaccinations.

Biological preparations known as vaccinations increase immunity to diseases and either treat (in the case of prophylactic vaccines) or prevent disease (therapeutic vaccines). According to the Center for Disease Control and Prevention (CDC), vaccines are substances used to boost the immune system's defenses against disease. Most vaccines are given by needle injection, although some can be taken by mouth or sprayed into the nose. Vaccination is administering a vaccine to the body to generate protection against a certain disease. Due to their superior cost-effectiveness compared to treatments and their ability to minimize morbidity and mortality without having any permanent consequences, vaccinations have established themselves as the most reliable method for preventing infectious diseases. The most obvious means of preserving world health will continue to be preventative and therapeutic vaccinations.

One of the top 10 health threats to the world is vaccine hesitancy, which happens when people put off being vaccinated or outright refuse to get vaccinated. Acceptance and reluctance issues with vaccinations have been widespread issues around the world. In addition, it has been noted that health professionals and students frequently express hesitancy about getting vaccines. Several elements or causes have been mentioned in the literature, particularly vaccine reluctance. Most people's COVID-19 vaccination side effects, also known as adverse reactions, are minor and manageable at home. All intramuscular injection-delivered vaccinations, including COVID-19 vaccines, include adverse effects due to the procedure's mild trauma and the introduction of foreign material into the body. The injection site may experience discomfort, redness, irritation, and inflammation.

Other frequent side effects include weakness, headaches, myalgia (muscle pain), and arthralgia (joint pain), which usually go away on their own within a few days without needing medical attention. Like with any vaccine, some persons may have an allergy to one or more components of the COVID-19 vaccine. Up to 20% of individuals experience side effects after receiving the second dosage of a disruptive mRNA vaccine. Typical side effects are higher and more frequent in younger individuals and subsequent doses. Inactivated vaccines had fewer of these adverse reactions or less severe ones. Schoolchildren comprise the largest group. However, data regarding the level of children's vaccination knowledge are sparse. The need for school children to educate themselves since they self-reported a need to access further information regarding vaccines.

Methodology

Research Design; Quasi-experimental one-group pre-test - post-test design. The study was conducted onhigher secondary School childrenin Kanpur, Uttar Pradesh. The sample consists of 60 higher secondary School children in Kanpur; 60 subjects were selected using a non-probability convenient sampling technique.

Inclusion criteria: School childrenstudying in Higher Secondary School, Kanpur, Willing to participate. Who knows to read, write and speak in

English and Hindi languages. Exclusion criteria: unwilling to participate in the study are on leave.

The tool was organized as follows.

Part1: Sociodemographic variables of the Higher Secondary School children.

Part 2: Consists of the Questionnaire with 30 items. Scoring interpretation: <50% Poor, 51- 75% Average, >75% Good.

Data collection procedure:

The researcher decided to conduct the study at Higher Secondary School, Kanpur, UP. The investigator obtained permission from the respective school's authority before data collection. The data was collected from 12.06.2022to 15.07.2022. A written informed consent was taken separately from each sample. Appropriate orientation was given to all the samples about the aim of the study and the nature of the tool; adequate care was taken to protect them from potential risk, including maintaining confidentiality, security, identity etc.

Participants were asked to answer a structured knowledge questionnaire with demographic data. After the pre-test, a structured teaching program was given to the staff nurses with the help of charts. An interval of one-week post-test was conducted using the same tool to determine the effectiveness of a structured teaching program.

Statistical design:

Data were verified before computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of significance (chi-square and paired t-test) was applied to test the study hypothesis.

Results

Table 1: Frequency and percentage distribution of sociodemographic variables

S. No	Sociodemographic Variables	Fre (f)	Per (%)
1.	**Age in years**		
	a. 13 – 14	39	65%
	b. 15 – 16	16	27%
	c. 17 – 18	5	8%
2.	**Gender**		
	a. Male	30	50%
	b. Female	30	50%
3.	**Education**		
	a. 1st year	30	50%
	b. 2nd year	30	50%
4.	**The family income per month**		
	a. 5000 – 10000	9	15%
	b. 10001 – 15000	37	62%
	c. Above 15001	14	23%
5.	**Areas of living**		
	a. Urban	35	58%
	b.Rural	25	42%

Table 1 describes the description of demographic variables of the study population; out of the total study population, most of the samples, 39 (65%) are 13 - 14 age, 30 (50%) are Female and male, 30 (50%) are 1st and 2nd year of higher secondary school, 37 (62%) are10001 - 15000 rs family income per month, 35 (58%) are the urban area of living.

Table 2: Pre and post-test knowledge score on covid 19 vaccination complications

Level of knowledge	Pre-test		Posttest	
	Fre	Per	Fre	Per
Inadequate knowledge	55	92%	0	0%
Moderately adequate knowledge	5	8%	49	82%
Adequate knowledge	0	0%	11	18%

Table 2 describes the pre-test and post-test knowledge scores on covid 19 vaccination complications; 55 (92%) have inadequate knowledge in the pre-test and 5 (8%) in the post-test. 0 (0%) Adequate knowledge in the pre-test and 11 (18%) and 49 (82%) Moderately adequate knowledge in the post-test.

Table 3: Determination of overall knowledge score before and after the structured teaching program.

Test	Knowledge score mean±SD
Pretest	13.11 ± 3.22
Posttest	25.26 ± 4.28*

Student paired t-test, *P – 0.05, significant

Table 3 associates the significance between the pre-test and post-test level of knowledge at 0.05 level of significance.

Associates the significance between the post-test level of knowledge and demographic variables, regarding age chi-square 11.93, regarding gender chi-square 7.85, regarding family income per month 32.11, p-value less than 0.05 level of significant, significant and education and area of living are non-significant.

Discussion: In the present study, the pre-test level of knowledge regarding Moderately adequate knowledge, 92% of them have inadequate knowledge, 8 % have moderately adequate knowledge, 0% have Adequate knowledge and 0%, 82%, and 18%, respectively, inadequate, moderately adequate, Adequate knowledge in the post-test. The pre-test knowledge score was 44% and the post-test was 84%. 41% was an increased score after the intervention and the level of knowledge at 0.05 was significant.

The significance between the post-test level of knowledge and demographic variables regarding age and gender, family income per month was significant at 0.05 and education and area of living were non-significant.

The results of the present study supported bysabria AM et al., studied Knowledge, Attitudes, and Practices (KAP) toward the COVID-19 Vaccine in Oman, concluded 34% rate of COVID-19 vaccine refusal by the participants, influenced mainly by friends and social media, the govt should adopt innovative risk communication methods to reach all the resistant strata of the population highlighted in this study. Mannan etal., Our study findings illustrate that 88% of participants heard about the COVID-19 vaccine, which was in line with similar studies conducted in 19 countries demonstrating that knowledge significantly affects precautionary measures through the effectiveness of belief and has a direct effect on attitudes. Salman MAZ et al., studied bout Public Knowledge, Attitude and Perception towards COVID-19 Vaccination in Saudi Arabia and concluded significant knowledge and a positive attitudehe attitude towards serious unreported adverse reactions and the perception of long-term protection offered by the vaccines has a logical meaning since the available data have not yet established the precise duration of efficacy of the vaccines. Adverse events are not yet linked directly to vaccination.The awareness program must be continued, which has proven to play an important role in communicating information about the safety and efficacy of vaccines to different groups of the population, including those under 18 and pregnant people.

Conclusion

The present study aims to assess the knowledge regarding post covid 19 vaccination complications among higher secondary school children. These findings showed that School children's knowledge increased significantly after the intervention. The mean knowledge in all aspects of improvement. The study's findings revealed a significant increase in the post-test knowledge score after administering the intervention. The difference between pre and post-test knowledge scores was

highly significant. Recommendations for further study can be conducted for a larger sample group and in different settings.

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