A COMPARATIVE STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF COVID-19 IN UDAIPUR AND SIROHI DISTRICTS OF SOUTHERN RAJASTHAN

Community Medicine

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ABSTRACT

Background: Understanding knowledge, attitude, practices related to this COVID-19 help to predict outcome of planned behaviour of the general population which further helps the policy makers to form policies to control the outbreak and protect nation accordingly. **Aim:** (i) To understand knowledge, attitude and practices among general population. (ii) To compare knowledge, attitude and practices among general population of two different districts of Rajasthan state of India. **Methodology:** A questionnaire based cross sectional study was conducted in the month of July 2020 among 200 participants of Udaipur and Sirohi districts of Rajasthan state. Data was recorded in MS EXCEL 2016 and statistical analysis was done using SPSS. **Result:** Mean score of knowledge for Udaipur is 23.7 ± 2.2 and for 23.3 ± 2.4 Sirohi, attitude mean score for Udaipur is 11.6 ± 1.9 and for 11.8 ± 2.6 Sirohi and practice mean score for Udaipur is 11.6 ± 1.7 and 10.9 ± 2.0 for Sirohi. Highest score for knowledge, attitude and practice was present in older individuals, that too mainly in the age group ≥ 65 years. In our study males had more knowledge than females. But attitude and practice were found to be better in females. **Conclusion:** Overall according to the mean score all the participants in our study had high knowledge, neutral attitude and high or strong practice.

KEYWORDS

Knowledge, Attitude, Practice, Coronavirus, COVID-19

INTRODUCTION:

From December 2019, when first case of COVID-19 was identified in Wuhan city of China to this time when coronavirus have paved its impact to every part of world, COVID-19 has become a familiar term with every household. The fact that every individual is at risk and may be a part of the epidemic chain, it is of great importance that each and every individual is aware of the fact that he plays a critical role in controlling the outbreak. It is a well established fact that by now community transmission have occurred in many parts of the world.

However it is likely compounded by the fact that still people have inadequate awareness of infection prevention practices. Knowledge of a disease may influence ones attitude and practices and incorrect attitude and practices directly increase risk of infection. Understanding knowledge, attitude, practices and risk factors help to predict outcome of planned behaviour.¹

Thus this study aims to understand and compare knowledge, attitude and practices among general population of two districts, namely Udaipur and Sirohi of Rajasthan state of India.

Methodology:

Study Design And Site: A cross sectional study was conducted in the month of July 2020 in two different districts of Rajasthan state namely Udaipur and Sirohi.

Study Population: A total of 200 participants were included in the

study, 100 from each district. They were selected randomly from the general population who were aged 18 years and above and gave consent.

Study Procedure: A questionnaire was prepared using WHO training material for detection, prevention, response and control of COVID-19² and making changes in it for better understanding of questions by the participants.³

Study Variables:

Independent variables: Demographic details which included sex, age, education, occupation and residence.

Dependent variables: Knowledge, attitude, practices towards COVID-19.

Data Management And Analysis:

Data from questionnaire was recorded in MS EXCEL 2016. Each correct response carried 1 point and incorrect carried 0 point. Knowledge was assessed on a scale of 0-26; more than 23 was taken as high, 19-23 as moderate and less than 19 as low knowledge. Attitude was assessed on a scale of 0-14; more than 12 was taken as positive attitude, 9-12 as neutral than 9 as negative attitude. Practice was assessed on a scale of 0-12; more than 10 was taken as good practice, 8-10 as moderate and less than 8 as weak practice.^{2,3} The score secured by participants was converted into mean. p-value was calculated. Statistical analysis was done using SPSS.

RESULTS:

Table 1: Demographic Details Of The Participants:

CHARACTERSTICS	UDAIPUR DISTRICT (Percentage of participant; %) (n=100)	SIROHI DISTRICT (Percentage of participant; %) (n=100)
• AGE		
<25 years	8	15
26-45 years	50	59
46-65 years	34	20
>65 years	8	6
• GENDER		
Male	54	65
Female	46	35
• EDUCATION		
Never went to school	4	9
Upto primary	12	10
Upto middle	8	10
Upto secondary	14	18

Upto senior secondary	18	14
Graduation	30	33
Post graduation	14	6
• OCCUPATION		
None	12	10
Related to medical or paramedical services	6	20
Not related to medical or paramedical services	82	70

Table 2: Comparison Of Knowledge, Attitude, Practice Score Among Participants Of Both The Districts:

Characteristic	Knowledge *		P value	Attitude**		P value	Practice***		P value
	Udaipur	Sirohi		Udaipur	Sirohi		Udaipur	Sirohi	
	Mean±sd	Mean±sd		Mean±sd	Mean±sd		Mean±sd	Mean±sd	
AGE(in years)									
≤25	20.3±2.2	18.2±2.3	0.953	7.5±2	7.1.4±1.7	0.571	10.2±2.3	9.3±1.4	0.108
26-45	21.6±1.6	19.9 ± 2	0.110	10.2±1.1	8.6±2.1	0.000	11.4±1.4	10.2±1.2	0.259
46-65	19.4±2.1	18.5± 1.2	0.012	12.4±1.8	11.3±1.9	0.763	12.1±1.7	11.6±2.2	0.189
>65	24.1 ±0.8	25.2± 2.1	0.024	13.6±2.4	11.2±2.5	0.887	12.6±0.8	12.7±2.3	0.015
GENDER									
Male	25.3±2	24.8±1.6	0.000	11.5±2.1	9.9±1.2	0.000	9.3±1.8	8.7±1.6	0.366
Female	21.6±1.9	22.1±1.8	0.675	13.2±1.4	11.4±2.1	0.002	10.5±2.4	9.2±2.2	0.503
EDUCATION									
Never went to school	18.2±1.2	19.9±1.1	0.746	10.2±1.5	8.6±2.1	0.627	7.5±1.4	8.3±1.4	0.882
Upto primary	19.2±1.4	17.4±2.4	0.095	9.4±1.9	8.1±1.4	0.368	9.3±2.5	9.9±1.2	0.035
Upto middle	22.3± 1.7	20.8±2.1	0.590	10.9±2.3	11±2.1	0.780	9.9±2.5	9.3±2.3	0.796
Upto secondary	20.6±2.2	22.1±2.5	0.64	13.1±2.2	12.3±2.6	0.547	10.4±1.2	9.8±1.6	0.297
Upto senior secondary	23.5±1.2	20.4±1.5	0.384	10.4±1.4	11.2±1.9	0.236	10.5±2.8	8.6±2.2	0.382
Graduation	25.9±1.2	24.6±2.2	0.001	13.6±1.1	11.8±2.5	0.001	10.2±1.1	9.8±1.3	0.366
Post graduation	24.5±2.3	25.2±2.8	0.523	11.7±1.9	12.3±1.4	0.518	11.7±2.1	10.2±2.5	0.563
OCCUPATION									
Not working	20.6± 1.7	19.6±1.6	0.869	8.2±2.4	8.6±1.3	0.076	10.5±1.3	9.4±1.5	0.644
Not related to health care	24.4±1.2	22.7±2.6	0.094	12.3±1.7	9.8±1.4	0.488	10.3±1.8	11.3±2.1	0.787
Health care	25.1±2.4	23.9±3.1	0.027	11.4±2.2	10.7±3.1	0.003	11.6±1.4	10.2±1.7	0.092

*Knowledge score of >23 was taken as high, 19-23 moderate and 19 as low

**Attitude score of >12 was taken as positive, 9-12 neutral and 9 as negative

***Practice score of >10 was taken as good, 8-10 moderate and 8 as weak

KNOWLEDGE:

Overall score regarding knowledge ranged from 15 to 25 in Udaipur and 16 to 24 in Sirohi. Mean score of knowledge for Udaipur is 23.7±2.2 and for 23.3±2.4 Sirohi. Overall 14% respondents from Udaipur had high knowledge, 62 % had moderate and 24% had low knowledge. Whereas in Sirohi, 4 % had high knowledge, 46% moderate and 50 % low.

According to age group, the mean highest score of knowledge was secured by people of more than 65 year age group and lowest score was secured by age group less than or equal to 25 years in both the districts. The difference in knowledge in respondents from both the districts was significant in age group 46-65 years (with p-value 0.012 and mean ±SD 19.4±2.1 in Udaipur and 18.5±1.2 in Sirohi); and in age group more than 65 years (with p-value 0.024 and mean ±SD 24.1±0.8 in Udaipur and 25.2±2.1 in Sirohi).

Genderwise, males had more knowledge than females in both the districts. And the difference in mean score of respondents of both the districts was highly significant in males (with p-value 0.000 and mean ±SD 25.3±2 in Udaipur and 24.8±1.6 in Sirohi); and was insignificant in females (p-value: 0.675).

With regards to education, highest score was secured by graduates in Udaipur and post graduates in Sirohi; and the lowest score was secured by those who never went to school in Udaipur and in Sirohi by those who were educated upto primary school. Also graduates of both the districts had highly significant difference in mean value (with p-value 0.001 and mean ±SD 25.9±1.2 in Udaipur and 24.6±2.2 in Sirohi); and was not significant in rest of the groups.

According to occupation, highest score was obtained by those engaged with health care work and lowest by those who were not working currently in both the districts. Although the difference in mean was significant in the group of respondents who had occupation related to health care with p-value 0.027 and mean ±SD 25.1±2.4 in Udaipur and

23.9±3.1 in Sirohi; and was not significant in rest of the groups.

ATTITUDE:

Overall score obtained regarding attitude ranges from 6 to 14 in Udaipur and 7 to 13 in Sirohi. Mean score of attitude for Udaipur is 11.6±1.9 and for 11.8±2.6 Sirohi. Overall 14% respondents from Udaipur had strong attitude, 78% had neutral and 8% had bad attitude. Whereas in Sirohi, 32% had strong attitude, 66 % neutral and 2 % bad.

According to age group, the mean maximum score of attitude was secured by people of more than 65 year age group in Udaipur and people of age group 46-65 years in Sirohi; and lowest score was secured by age group less than or equal to 25 years in both the districts. The difference in attitude in respondents from both the districts was highly significant in age group 26-45 years (with p-value 0.000 and mean ±SD 10.2±1.1 in Udaipur and 8.6±2.1 in Sirohi); and was insignificant in rest of the age groups.

Genderwise, females had stronger attitude than males in both the districts. And the difference in mean score of respondents was highly significant in males (with p-value 0.000 and mean ±SD 11.5±2.1 in Udaipur and 9.9±1.2 in Sirohi); and was significant in females (with p-value 0.002 and mean ±SD 13.2±1.4 in Udaipur and 11.4±2.1 in Sirohi);

With regards to education, highest score was secured by graduates in Udaipur and post graduates in Sirohi; and the lowest score was secured by those who never went to school in Udaipur and in Sirohi by those who were educated upto primary school. Also graduates of both the districts had highly significant difference in mean value (with p-value 0.001 and mean ±SD 13.6±1.1 in Udaipur and 11.8±2.5 in Sirohi); and was not significant in rest of the groups.

According to occupation, highest score was obtained by those working in non health related sectors in Udaipur and those working in sectors related to health care in Sirohi. Lowest score was secured by those who were not working at all in both the districts. Although the difference in mean was highly significant in the group of respondents who had occupation related to health care with p-value 0.003 and mean ±SD 11.4±2.2 in Udaipur and 10.7±3.1 in Sirohi; and was not significant in rest of the groups.

PRACTICE:

Overall score obtained regarding practice ranges from 7 to 12 in Udaipur and 9 to 11 in Sirohi. Mean score of practice for Udaipur is 11.6 ± 1.7 and 10.9 ± 2.0 for Sirohi.

Overall 44% respondents from Udaipur had good practice, 48% had moderate and had 8% weak practice. Whereas in Sirohi, 18 % had good, 78% moderate and 4% weak practice.

According to age group, the mean maximum score of practice was secured by people of more than 65 year age group in both Udaipur and Sirohi and lowest score was secured by age group less than or equal to 25 years in both the districts. The difference in practice in respondents from both the districts was significant in age group more than 65 years (with p-value 0.015 and mean $\pm$ SD 12.6 ± 0.8 in Udaipur and 12.7 ± 2.3 in Sirohi); and was insignificant in rest of the age groups.

Genderwise, females had better practice than males in both the districts. And the difference in mean score of respondents of both the districts was insignificant.

With regards to education, highest score was secured by post graduates and the lowest score was secured by those who never went to school in both the districts. Also those people who had education upto primary school had significant difference in mean value (with p-value 0.035 and mean $\pm$ SD 9.3 ± 2.5 in Udaipur and 9.9 ± 1.2 in Sirohi); and was not significant in rest of the groups.

According to occupation, highest score was obtained by those working in health related sectors in Udaipur and those working in sectors not related to health care in Sirohi. Lowest score was secured by those working in non health related sector in Udaipur and in Sirohi by those not working at all. Although the difference in mean score of both the districts was non significant in all the groups.

DISCUSSION:

Since the outbreak, Corona virus had brought chaos to lives and economics around the world. As of now, India is facing biggest health emergency since the country has gained independence. Knowledge, attitude and practice of public is foreground for implementing any health policy.⁴

Our study suggests that the highest score for knowledge, attitude and practice was present in older individuals, that too mainly in the age group ≥ 65 years. This is similar to a study conducted in Saudi Arabia⁵, where also the older population scored the highest. And also in a study of Uganda⁶, the highest knowledge and practice were present in age group ≥ 40 years.

In our study males had more knowledge than females. But attitude and practice were found to be better in females. In contrast to the above mentioned studies of Uganda⁷ and Saudi Arabia⁸ where males had better knowledge, attitude and practice than females.

People with higher education or qualification had more knowledge and better attitude and practice. This was similar to a study of Greece⁹ where also education affected these parameters. And the study of Uganda⁶ showed better knowledge and attitude in higher educated population whereas better practice in comparatively less qualified group.

CONCLUSION:

According to the mean score, overall all the participants in our study had high knowledge, neutral attitude and good practice.

FUTURE SCOPE:

If the knowledge, attitude and practice of general population concerning the virus along with the factors that determine their attitude and behaviour, then this information can be used for preparing relevant IEC and policies during the outbreak and guide people in prioritizing their protection and safety.

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