Public Awareness and Practices Toward Preventive Measures Against COVID-19 Pandemic

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Abstract

To know level of awareness and practices in public about prevention measures of corona virus to protect themselves from disease contraction. Survey was conducted through self administered questionnaire having 10 questions about knowledge of prevention measures and 12 questions about different prevention practices. Sample consisted of n=355 having 64.8% male and 35.2% female participants. Participants of study belonged to Dist. Kotli of Azad Jammu & Kashmir. Questionnaire was consistent having reliability value .835. Mean value for overall awareness and practices toward preventive measures was 39.42±10.36. Out of total sample, 43.4% had well, 45.9% had moderate and 10.7% had poor awareness. 71% population highly practiced different prevention measures, 19.2 % at moderate level and 9.9% had poor practices. Awareness and practices were positively correlated with r=.275, p<0.001. Comparison between socio demographic characteristics and Awareness and Practices variables was done. It showed that gender and education have no significant impact. However, practices level across age varied with p=0.00. Type of occupation and marital status were found to be significant variables in determining awareness and practices against corona virus. Public had awareness about prevention measures and practiced them at satisfactory level. Knowledge and education could further promote awareness and practices rate and help to combat novel coronavirus pandemic.

Introduction;

In December 2019, a number of pneumonia cases of unknown cause were reported in Wuhan seafood market area, Hubei province of China (Ding et al, 2020). Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), named by WHO, was confirmed to be cause of disease. The disease was named as the Corona Virus Disease 2019 (COVID-19) on 20 January 2020. It is transmitted from human to human (Ding et al., 2020). At first, SARS-CoV-2 was considered communicating from animal to human due to link between seafood market and most of cases in that local area. Later it was revealed to be spreading from human to human through direct contact or droplets. According to study, 41% patients were suspected due to presumed hospital transmission (Lai et al., 2020). Coronavirus was first discovered as infectious bronchitis virus in birds in 1937. (Felman, 2020). Coronavirus (CoV) was first identified in 1960 causing common cold in human by affecting upper respiratory tract. In 2002, severe acute respiratory syndrome coronavirus (SARS-CoV) emerged. In 2012, the Middle East respiratory syndrome coronavirus (MERS-CoV) emerged. They lead to lower tract respiratory infections resulting in pneumonia. They both are malicious as compared to benign Coronavirus (CoV) (Sun C et al.

2020). SARSCoV-2 has ~79% similarity with SARS-CoV and ~50% similarity with Middle East respiratory syndrome coronavirus (MERS-CoV) (Lai et al., 2020). Global public health is at risk due to outbreak of third 2019-nCoV after (SARS-CoV, 2003) and (MERS-CoV 2012) in last two decades. (Chen et al., 2020). WHO declared COVID-19 epidemic as sixth public health concern throughout world after H1N1 (2009), polio (2014), Ebola in West Africa (2014), Zika (2016) and Ebola in the Democratic Republic of Congo (2019) (Lai, et al., 2020). WHO reported 87,137 confirmed cases of COVID-19 as on March 1, 2020 (Hossain, 2020). CoVID-19 is great threat. As it spreads more efficiently through human even having mild symptoms or presymptomatic infecting 2 or 3 other persons at average. It has caused 10 times more deaths as compared to SARS in quarter of time. So there is need to save lives but at the same time there is need to improve ways to respond to outbreak (Gates, 2020). Globalization along with efficient transmission of CoV-2 can promote worldwide spread (Lai, C.C et al., 2020). Due to technological advancement, world has become global hub. So chances for disease spread are greater in this modern era. However, digital technology can be used to make people aware about disease spread and preventive measures to control pandemics. Public awareness can lead to control epidemic outbreak through individual and collective actions (Chen et al., 2020). This study aims to know about public level of knowledge and practices against Coronavirus to prevent themselves and others from infection.

Methodology
Convenient sampling technique was used to collect data through self administered questionnaire. Public awareness and level of practices about different prevention measures against COVID-19 pandemic were targeted. Sample consisted of n=355 from Dist. Kotli of Azad Jammu & Kashmir. Participants of both genders with age 15 years or above were included.

Statistical Analysis
Data were coded and analyzed through IBM SPSS statistics. Descriptive statistics (frequency and percentage) were used to explain socio-demographic variables. Reliability of data was measured. Mean descriptive were used to explain the level of awareness and practices among public. Correlation analysis and linear regression were used to know impact of awareness on practices. Socio demographics variables were compared with dependant variables through sample t-test and ANOVA.

Results

Table 1; Frequency and percentage distribution of socio-demographic characteristics of respondents

Variable	Frequency (f)	Percentage (%)
Age		
15-25	180	50.7
26-35	90	25.4
36-45	48	13.5
46-55	27	7.6
Above 55	10	2.8
Gender		
Male	230	64.8

Female	125	35.2
Education		
Less than metric	72	20.3
Metric	97	27.3
F. A/F.Sc	71	20.0
B. A/B.Sc	45	12.7
M.A/M.sc	61	17.2
M.Phil./Ph.D.	9	2.5
Occupation		
Government	67	18.9
Private	101	28.5
Unemployed	62	17.5
Student	125	35.2
Monthly income		
Less than 20,000	196	55.2
20,000-40,000	117	33.0
40,000-80,000	34	9.6
80,000-120,000	5	1.4
Above 120,000	3	.8
Marital status		
Married	149	42.0
Unmarried	201	56.6
Divorced	1	0.3
Widowed	4	1.1

Table 1 shows socio demographic characteristics of participants. Half of sample participants belonged to age group 15-25. Majority of sample were male with different education level. Most participants were students comprising 35.2% of sample. Majority had income level less than 20,000 and 56.6% were unmarried.

Table 2; *Frequency percentage of level of awareness and preventive measures with no. of questions, range of score, total score.*

Variables	Number of questions	Range of score	Total score (mean±S.D)	Level %,	N=355	
				Good	Moderate	Poor
Awareness	10	10-29	16.45±3.178	43.4	45.9	10.7
Practices	12	12-69	22.96±9.028	71.0	19.2	9.9

Table 2 shows that 43.4% have good, 45.9% have moderate and 10.7% have poor level knowledge about prevention measures. The level of practices among study participants varied with 71% having good level of practices, 19.2% having moderate and only 9.9% practiced poorly.

Table 3 *Correlation analysis of Awareness and Practices toward preventive measures against CoVID-19*

No. of items	N	R	P
22	355	.275	0.00

Table 3 demonstrates that Correlation was found to be significant between awareness and practices having value r (355) =.275, p<0.05. The positive value of r=.275 showed that if awareness increases among public, it promotes prevention practices.

Table 4 *Regression analysis of outcome variable, Practices with predictor variable of Awareness about preventive measures*

Variable	Standard error	t-value	Beta	Significance level
Practices	.145	5.365	.275	.000

In Table 4, regression analysis value, F $(1,353)$ = $(28.787, p<0.001)$, r^2 of 0.075 showed that awareness contributes 75% in promoting practice level against Corona virus prevention. The beta value, β=.275 meant that if awareness is increased by one unit, practice rate increase by .275.

Discussion
The study provided an insight about level of awareness and practices among public about preventive measures against CoVID-19 pandemic. It was first study conducted to the best of knowledge in Azad & Jammu Kashmir. The main focus of study was to know about level of knowledge in general public about precautionary measures against CoVID-19 and how much they practice them to protect themselves and others from virus. The impact of awareness on level of practices was also measured. The overall mean of study was 39.42±10.36. It meant that public has knowledge about prevention measures and practice them to prevent themselves from disease. The mean awareness about prevention measures was 16.45±3.178. The mean for practices was 22.96±9.02 showing public practice preventive measures adequately to protect themselves and others. The study results supported the first assumption that public has awareness about preventive measures and they practice them to prevent infection. Previous studies also found level of awareness and practices of COVID-19 infection among public (Srichan et al., 2020; Nazir & Rashid, 2020). Correlation analysis showed that if awareness increases among public, it promotes prevention practices. Findings showed that awareness contribute 75% in promoting practice level against Corona virus prevention. If awareness is increased by one unit, practice rate increase by 0.275. It proved the third objective of study that awareness has an impact on level of practices among public to prevent disease contraction and spread. The literature also supported the finding that better knowledge promotes positive practices (Alhomoud & Alhomoud, 2017). Socio-demographic variables were compared with awareness and practice variables. Gender and education were insignificant in determining level of awareness and practices in study population. The current study results were contrary to literature that gender significantly impacts knowledge about prevention measures of COVID-19 infection (Alahdal et al., 2020). However, level of practices among study population showed significant difference having p=0.01, with age. The type of occupation impacts the awareness about preventive measures with p=0.01. Marital status had significant impact on level of awareness and practices in public. Previous studies showed that socio demographic variables vary significantly in

determining knowledge and practices of prevention measures (Srichan et al., 2020; Erfani et al., 2020).

Conclusion

To conclude, the general public has awareness about prevention measures against Corona Virus. The practice level is satisfactory. Public has positive attitude about prevention strategies and measures. Main source of information is television. Levels of practices and awareness have direct association. Television can help in promoting awareness about infection. So it can be a source for further spreading awareness against disease prevention.

Recommendation

General public should be educated through awareness campaigns about importance and purpose of research being conducted. People's misconception about providing personal details for research should be targeted. As people believe that personal information can be misused later on. People's trust about governmental activities during epidemic must be raised. False rumors about testing procedure, Quarantine strategies must be targeted. Research instrument should be comprehensive for every other person to understand it easily. As sample size is not completed due to epidemic, further research using large sample must be conducted to represent population.

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