

KNOWLEDGE, AWARENESS, AND PRACTICES (KAP) AMONG HEALTH SCIENCE STUDENTS AND PRIMARY HEALTH CARE PHYSICIANS REGARDING UPDATED GUIDELINES TOWARDS COVID-19 PANDEMIC INFECTION IN ANDHRA PRADESH: A CROSS SECTIONAL STUDY

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ABSTRACT

Background: In 2019, a novel virus belonging to the coronavirus (CoV) family, SARS-CoV-2, emerged in Wuhan, China's Hubei province. This was first reported to the WHO Country Office in China at the end of that year and is now known as COVID -19. Although this is a new strain, related coronaviruses can cause illnesses ranging from the common cold to more severe diseases such as SARS and MERS as per the literature. The clinical presentation is generally that of a respiratory infection with a symptom severity ranging from a mild common cold-like illness, to a severe viral pneumonia leading to acute respiratory distress syndrome that is potentially fatal.

Aim and Objective of the study: Unprecedented measures have been espoused to control the rapid spread of the enduring COVID-19 epidemic in Andhra Pradesh. Health science students and primary health care physician's adherence to control measures is prejudiced by their knowledge, attitudes, and practices (KAP) towards COVID-19. The battle against COVID-19 is continuing in India. To guarantee the final success, public adherence to these control measures are vital, which is mostly pretentious by their knowledge, Awareness, and practices (KAP) towards COVID-19 in accordance with KAP theory.

Materials and Methods: A cross sectional study is designed to include health sciences students and primary health care physicians in Andhra Pradesh state. An interview questionnaire has been designed to assess Knowledge, Awareness and Practices of health sciences students and primary health care physicians, regarding COVID -19.

Results and Discussion: All the registered study participants after giving their consent, completed the questionnaire perfectly. Regarding the Sociodemographic characteristics, out of 243, Male 79 (32.5), Female 164 (67.5) in Gender. Majority of the study participants 128 (52.7%) were from Allied Health Science background, 95 (39.1%) medicine background 10 (4.1%) and others 10 (4.1%). Knowledge variables, Type of Locality and Educational qualifications variables, *Awareness variable and *Practices variables i.e., Occupation variable unvarying with demographics using Multiple linear regression endured significant. Educational qualifications variables and Monthly income wise most of the study participants are students 208.

KEY WORDS: Coronavirus (CoV), Novel Coronavirus (COVID-19), Acute Respiratory Distress Syndrome (ARDS), Pandemic, Lockdown In India, WHO.

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INTRODUCTION

Viral diseases epitomize a serious threat to public health, with novel viruses enduring to emerge according to World Health Organization. Several viral epidemics have befallen in the past 20 years, such as severe acute respiratory syndrome (SARS) in 2003, influenza caused by the virus subtype H1N1 in 2009, Middle East respiratory syndrome (MERS) in 2012, and Ebola virus disease in 2014. In 2019, a novel virus belonging to the coronavirus (CoV) family, SARS-CoV-2, emerged in Wuhan, the largest metropolitan area in China's Hubei province [1-7]. This was first reported to the WHO Country Office in China at the end of that year and is now known as COVID-19.

A potentially severe acute respiratory infection triggered by the novel coronavirus is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)[8,9]. The clinical presentation is generally that of a respiratory infection with a symptom severity oscillating from a mild common cold-like illness, to a severe viral pneumonia leading to acute respiratory distress syndrome that is potentially fatal. Characteristic symptoms include fever, cough, and dyspnea, although some patients may be asymptomatic, and Complications are not limited but may lead to multi-organ failure, septic shock, and blood clots.

SARS-CoV is one of 36 coronaviruses in the family Coronaviridae within the order Nidovirales. Members of the Coronaviridae are known to cause respiratory or intestinal infections in humans and other animals. On the basis of "Alarming levels of spread and severity, and by the alarming levels of inaction", on March 11, 2020, the Director-General of WHO characterized the COVID-19 situation as a pandemic.(4) in India and Andhra Pradesh reported first case of Covid-19 on March 12 2020. During the last three months, new major epidemic foci of coronavirus disease 2019 (COVID-19), some without traceable origin, have been identified and are rapidly expanding in Andhra Pradesh, with the first confirmed cases being identified in Nellore on March 12, 2020 [8].

Lockdown has been announced by the State of Andhra Pradesh vide G.O.Rt.No. 216 dated

24.03.2020 for Containment, Control and Prevention of spread of COVID-19 till May 31 2020.

Corona outbreaks raised analogous problems for both health services and staff in terms of the psychological impact of increased workload, the need for personal protection, and fears of possible infection of themselves and their families. This information might now provide guidance for healthcare workers in the latest coronavirus pandemic with knowledge, awareness, and practices (KAP) on health science students and primary health care physicians regarding updated guidelines towards COVID-19 pandemic infection in Andhra Pradesh.

Current health sciences students are the future medical caregivers who could play an important role in the management of COVID-19, the novel pandemic at primary, secondary, and tertiary levels of health care centers. In order to perform their functions well, it is a must that they have a good understanding of COVID-19. Thus, we formulated a research questionnaire to assess' knowledge, attitude and practice of students towards COVID-19 among health sciences students in Andhra Pradesh. The outcome of the study will identify the areas of knowledge gap the students have, and it will assist the students better for adequate health-care delivery to COVID-19 patients and therefore undertook this rapid online cross sectional study. To facilitate outbreak management of COVID-19 in Andhra Pradesh, there is an urgent need to understand the awareness of COVID-19 at this critical moment. In this study, KAP towards COVID-19 was instigated among health science students and primary health care physicians during the rapid rise period of the COVID-19 outbreak.

SUBJECTS AND METHODS

Participants and Survey instrument: This cross-sectional survey was conducted in the month of May 2020, after the lockdown of Andhra Pradesh. It is not feasible to ensure a community-based national sampling survey during this special period, data is collected through online. Relying on the authors' networks with Andhra Pradesh people, a google form is

created, link is generated and was posted/reposted to moments and groups through "WhatsApp" accounts. This Google form contained a brief introduction on the background, objective, procedures, voluntary nature of participation, declarations of anonymity and confidentiality, and notes for filling in the questionnaire, as well as the link and quick response of the online questionnaire. Persons hailing from Andhra Pradesh aged between 18 years-49 years, understood the content of the survey, and agreed to participate in the study. They were requested to complete the questionnaire via clicking the link. Participants needed to answer a yes-no question to confirm their willingness to participate voluntarily. After confirmation of the question, the participant was directed to complete the self-report questionnaire.

Measures: The questionnaire consisted of two parts: demographics and KAP. Demographic variables included age, gender, marital status, education, occupation, and place of current residence. According to guidelines for clinical and community management of COVID-19 by the State Control and Prevention Cell of Novel Corona Virus (COVID19) Commissionerate of Health & Family Welfare Department, Government of Andhra Pradesh

Study area and design: The study was conducted among Health Sciences undergraduate students in Andhra Pradesh. The study was conducted in the month of May 2020 for health science students with a total number of 243 students in the department of Medicine, Nursing, & allied Health sciences from first year to the graduating year included in the study without any pre-conditions. Knowledge questionnaire had 21 questions regarding clinical presentations, transmission routes, Biomedical waste management, Embalming, prevention, and control (K1-K21, Table 1) of COVID-19. Awareness towards COVID-19 were measured by 6 questions (AW1-AW6, Table 1) about the agreement on the final control of COVID-19 and the self-reliance in endearing the battle against COVID-19. The assessment of participant practices was composed of 4 behaviors (P1-P4, Table 1): going to a crowded place to meet friends/relatives, washing hands

and wearing a mask when going out in recent days. The final version of the survey consisted of 39 items written in English. Knowledge domain was designed to test students understanding of the different aspect of Corona disease. It comprised twenty-one questions and each question was categorized into a two point, four-point response scale ('Yes', 'No', 'Do Not Know', True, False'). The awareness domain contained six questions and each question has two-point categorical response scale ("Strongly agree", "Strongly disagree", 'Yes', 'No') to test students' belief. The practice domain consisted of four questions and each question measured on a two-point Likert-based scale ('Yes', 'No').

Statistical Analysis: Frequencies of correct knowledge answers and various attitudes and practices were described. Knowledge scores and attitudes and practices of different persons according to demographic characteristics were compared with Statistical Package for the Social Sciences (SPSS) software version 21 was used for data analyses as appropriate.

RESULTS AND DISCUSSION

Statistical Package for the Social Sciences (SPSS) software version 23 (SPSS Inc.) was used for data analyses. Continuous variables are reported as mean and standard deviation (SD). Whereas, categorical variables as crude counts and percentages. Crude associations were estimated using generalized linear models. For each KAP domains, a composite score was calculated. For-example, for knowledge domain (range: 0-17), we first scored response "yes" as correct (1), and response "No" (0), "Do Not Know" (0) and "Unsure" (0) as incorrect (0). For the attitude domain, we scored as "Strongly agree" (1), and 'Strongly disagree' (0), and for the practice domain, 'Yes (1), 'No' (0). Results Between April and May 2020, 243 adults' health sciences students enrolled from the second year to graduating year from different Institute of Health Sciences in Andhra Pradesh. All the registered study participants completed the questionnaire as per pre-survey instructions.

Regarding the Sociodemographic characteristics, out of 243, Male 32.5% of males and 67.5% of females participated in study. Majority of the study participants (52.7%) were from Allied

Table 1: Questionnaire of knowledge, attitudes, and practice towards COVID-19.

code	Questionnaire	Responses		
KNOWLEDGE				
K1	Are you completely aware about the present situation on COVID-19 pandemic outbreak?	Yes / (90.5%)	No/(4.5%)	I don't Know /(4.9%)
K2	The COVID-19 virus spreads via respiratory droplets of infected individuals	True / (93%)	False / (2.9%)	Maybe(4.10%)
K3	The target organ of severe acute respiratory syndrome (SARS COVID-19) is widely believed to be the lungs, hence the names "severe acute respiratory syndrome"	True / (95.9%)	False / (4.1%)	
K4	Lungs are Pair of respiratory organs situated in the thoracic cavity for exchange of gases	True / (99.6%)	False / (0.4%)	
K5	Functionally lungs have Conducting zone – conducts air to lungs (Nose, pharynx, larynx, trachea, bronchi, bronchioles and terminal bronchioles) Respiratory zone – main site of gas exchange (Respiratory bronchioles, alveolar ducts, alveolar sacs, and alveoli)	True / (97.5%)	False / (2.5%)	
K6	Fever, cough, difficulty in breathing are the main symptoms of COVID-19	True / (95.9%)	False/(0.8%)	Maybe (3.3%)
K7	A contact in the context of COVID-19 is:	All the above (90.9%)		
	1. A person living in same house hold/having had direct physical contact with a COVID-19 case: (4.9%)			
	2. His/her infectious secretions without recommended personal protective equipment (PPE) : (2.1%)			
	3. A person who was in a closed environment/had face to face contact with a COVID-19 case at a distance of within 1 metre including air travel : (2.1%)			
	4. All the above: (90.9%)			
K8	Duration of home quarantine for a confirmed case	14days (79%)		
	1.) 7days (1.2%) 2.) 10days (nil) 3.) 14 days (79%) 4.) 21 days (19.8%)			
K9	Public health measures at all times	All the above (98.4%)		
	1.) Wash hands thoroughly with soap and water or with alcohol-based hand sanitizer: (0.8%)			
	2.) Wear a surgical mask The mask should be disposed off properly: nil			
	3.) symptoms appear (cough/fever/difficulty in breathing), he/she should immediately inform the nearest health centre: (0.8%)			
	4.) All the above (98.4%)			
K10	Specimen collection details:	All the above (67.5%)		
	1.) Nasopharyngeal and oropharyngeal swabs (23.5%)			
	2.) Serum (3.3%)			
	3.) Sputum (3.3%)			
	4.) Tracheal aspirate, nasopharyngeal, aspirate or nasal wash and Broncho alveolar lavage (0.8%)			
	5.) Tissue from biopsy (1.6%)			
	6.) All the above (67.5%)			
K11	Personal protective equipment (PPE) is specialized clothing or equipment (Glove, Gown/Apron, Mask, Respirators, Goggles, Face shields and Shoes), worn by a health care professional for protection against infectious materials.	True / (98.4%)	False / (1.6%)	
K12	In COVID-19 death patients- lung under Conventional light microscopy (LM) demonstrates widespread damage of the lung parenchyma, edema, interstitial thickening. Extensive alveolar collapse, and the remaining alveoli will be filled with fluid	True / (92.5%)	False / (7.5%)	
K13	Non-infected and asymptomatic normal people should wash their hands regularly with soap / handwash and sanitize their hands to prevent COVID-19 infection	True / (98.4%)	False / (1.6%)	
K14	Do you know biomedical waste is generated during treatment of disease	Yes / (90.5%)	No / (9.5%)	
K15	Have you undergone any training programme on biomedical waste management	Yes / (63.4%)	No / (36.6%)	
K16	do you know that colour coded bags used for collection of waste	Yes / (95.9%)	No / (4.1%)	
K17	Do you know Human Anatomical Waste: Human tissues, biopsy are to be disposed off in yellow coloured non-chlorinated plastic bags.	Yes / (94.2%)	No / (5.8%)	
K18	Do you know Wastes generated from disposable items such as tubing, drains, oxygen mask, bottles, intravenous tubes and sets are disposed in Red coloured non-chlorinated plastic bags	Yes / (93.8%)	No / (6.2%)	
K19	Do you know that Waste sharps including Metals: Needles, needles, scalpels, blades or any other contaminated sharp object are sent to central common waste site in tamper proof, leak proof and puncture proof containers for final disposal	Yes / (92.2%)	No / (7.8%)	
K20	Embalming is a process of preserving a body to forestall decomposition	Yes / (95.1%)	No / (4.9%)	
K21	COVID-19 related death occurred human bodies should not be allowed for Embalming	Strongly agree / (87.7%)	Strongly disagree / (12.3%)	
AWARENESS				
AW1	Based on novel corona virus cases do you know that areas are classified under Red, orange and Green zones	Yes / (97.1%)	No / (2.9%)	
AW2	Areas with substantial numbers of positive cases would fall under Red zone	Yes / (95.5%)	No / (4.5%)	
AW3	Areas with limited number of cases in the past and no surge of positive cases recently would fall under orange zone	Yes / (94.7%)	No / (5.3%)	
AW4	Areas with no corona positive cases would fall under green zone	Yes / (97.5%)	No / (2.5%)	
AW5	To prevent community transmission, individuals should avoid going out and should remain in their house	Agree / (99.6%)	Disagree / (0.4%)	
AW6	Isolation / quarantine of the infected people and symptomatic treatment in a proper place are effective ways to reduce the spread of virus	Agree / (99.6%)	Disagree / (0.4%)	
PRACTICES				
P1	Are you going out to meet your friends / relatives in this lockdown period?	Yes / (7%)	No / (93%)	
P2	Are you regularly washing your hands at home for effective hand hygiene?	Yes / (99.2%)	No / (0.8%)	
P3	Do you regularly wear mask irrespective of symptoms ?	Yes / (79%)	No / (21%)	
P4	Are you allowing any visitors / friends at your home ?	Yes / (8.2%)	No / (91.8%)	
DEMOGRAPHICS				
D1	Age	18-49		
D2	Gender (Male 79 (32.5), Female 164 (67.5))			
D3	Profession (Medicine, Physiotherapy, Allied Health sciences, Nursing & others)			
D4	Educational qualifications (undergraduate, Postgraduate, Diploma)			
D5	Occupation (Monthly Salaried, Weekly / Daily salaried, Business, student)			
D6	Marital status (Married, unmarried)			
D7	Place, state and country of residence			
D8	Type of Locality – City / Town / Village / Others			

Note : The best possible correct responses are marked bold in red fonts

Health Science background(39.1%)medicine background 20(8.2%). and monthly income wise most of the study participants are students (Table 1). significant associations between these demographic variables and KAP towards COVID-19 revealed in this study

Knowledge: Out of total participated health science students and primary health care physicians,

Complete awareness about the present situation on COVID-19 pandemic outbreak is in 90.5% ,93% were aware of COVID-19 virus that it spreads via respiratory droplets of infected individuals (K2). 95.9% were aware that target organ of severe acute respiratory syndrome” is lungs(K3).99.6% Knew that Lungs are Pair of respiratory organs situated in the thoracic cavity for exchange of gases(K4).97.5% have knowledge that Functionally lungs have Conducting zone and Respiratory (K5).95.9% knew that Fever, cough, difficulty in breathing are the main symptoms of COVID-19(K6).90.9% knew regarding the contact in the context of COVID-19 (K7).79% knew that Duration of home quarantine for a confirmed case is 14 days(K8).98.4% aware of Public health measures at all times(K9).67.5% have idea of Specimen collection details through different sources(K10). 98.4% Personal protective equipment (PPE) is specialized clothing or equipment (Glove, Gown/ Apron, Mask, Respirators, Goggles, Face shields and Shoes), worn by a health care professional for protection against infectious materials(K11). 92.5% have knowledge that in COVID-19 death

lung under Conventional light microscopy (LM) demonstrates widespread damage of the lung parenchyma, edema, interstitial thickening.

Extensive alveolar collapse, and the remaining alveoli will be filled with fluid(K12).98.4% have knowledge that Non-infected and asymptomatic normal people should wash their hands regularly with soap / handwash and sanitize their hands to prevent COVID-19 infection(K13).90.5% know biomedical waste is generated during treatment of disease(K14). 63.4% Have undergone any training programme on biomedical waste management(K15).95.9% know that colour coded bags used for collection of waste(K16). 94.2% opted Human Anatomical Waste(Human tissues, biopsy) are disposed off in yellow coloured non-chlorinated plastic bags. (K17). 93.8% opted Wastes generated from disposable items such as tubing, drains, oxygen mask, bottles, intravenous tubes and sets are disposed in Red coloured non-chlorinated plastic bags (K18).92.2% opted Waste sharps including Metals: Needles, needles, scalpels, blades or any other contaminated sharp object are sent to central common waste site in tamper proof, leak proof and puncture proof containers for final disposal(K19).95.1% opted Embalming is a process of preserving a body to forestall decomposition(K20).87.7% opted COVID-19 related death occurred human bodies should not be allowed for Embalming(K21). Thus the large number of the health science students and primary health care physicians acquired good knowledge regarding updated guidelines towards covid-19 pandemic.

Table2: Demographic characteristics of participants and knowledge score of COVID-19 by demographic variables.

Characteristics		No. of Participants	Knowledge Score (Mean ± SD)	F	P
Gender	Male	79	19.07 ± 1.97	0.91	0.763
	Female	164	19.09 ± 1.76		
Age Group (years)	18-29	233	19.09 ± 1.83	0.37	0.848
	30-49	10	1.90 ± 1.91		
Marital Status	Married	15	19.46 ± 1.59	0.985	0.322
	Unmarried	228	19.06 ± 1.84		
Occupation	Student	208	19.12 ± 1.83	0.266	0.766
	Business	4	18.75 ± 1.25		
	Monthly Salaried	31	18.91 ± 1.86		
Place of Residence	City	65	19.41 ± 1.45	2.315	0.76
	Town	85	19.26 ± 1.63		
	Village	91	18.70 ± 2.17		
	Others	2	19.00 ± 1.41		
Education Qualification	SSC/Inter	41	18.17 ± 2.24	4.792	0.001
	Diploma	4	18.50 ± 2.38		
	Undergraduate	164	19.38 ± 1.63		
	Postgraduate	33	18.93 ± 1.73		
	Uneducated/illiterate	1	16.00 ± 0.00		
Profession	Medicine	10	19.30 ± 1.70	4.759	0.03
	Allied Health Sciences	128	19.47 ± 1.61		
	Nursing	95	18.63 ± 1.99		
	Others	10	18.30 ± 1.94		

Table 2.1:Multiple Linear regression (Awareness scores – Demographic Variables)

Coefficients ^a	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Beta		
(Constant)	25.37		9.18	0.00
Age	-1.34	-0.15	-1.68	0.10
Profession	-0.41	-0.17	-2.54	0.01
Gender	0.06	0.02	0.25	0.80
Occupation	-0.31	-0.11	-1.46	0.15
Marital_status	-1.10	-0.14	-1.73	0.09
Type_of_locality	-0.28	-0.12	-1.91	0.06
Educational_qualifications	0.30	0.15	2.14	0.03
(Constant)	25.50		9.41	0.00
Age	-1.34	-0.15	-1.69	0.09
Profession	-0.40	-0.17	-2.54	0.01
Occupation	-0.32	-0.12	-1.54	0.13
Marital_status	-1.10	-0.15	-1.74	0.08
Type_of_locality	-0.28	-0.13	-1.91	0.06
Educational_qualifications	0.30	0.15	2.13	0.03
(Constant)	25.65		9.45	0.00
Age	-1.69	-0.18	-2.21	0.03
Profession	-0.42	-0.17	-2.61	0.01
Marital_status	-0.92	-0.12	-1.48	0.14
Type_of_locality	-0.28	-0.12	-1.89	0.06
Educational_qualifications	0.24	0.12	1.80	0.07
(Constant)	22.30		14.86	0.00
Age	-0.99	-0.11	-1.64	0.10
Profession	-0.38	-0.16	-2.40	0.02
Type_of_locality	-0.30	-0.13	-2.02	0.05
Educational_qualifications	0.26	0.13	1.92	0.06
(Constant)	20.21		25.55	0.00
Profession	-0.35	-0.15	-2.25	0.03
Type_of_locality	-0.25	-0.11	-1.74	0.08
Educational_qualifications	0.22	0.11	1.66	0.10

a. Dependent Variable: Knowledge Score

*Knowledge variables i.e., Profession, Type of Locality and Educational qualifications variables unvarying with demographics using Multiple linear regression endured significant.

The knowledge score for correctly answered participants Mean± SD is 220.8095 ±22.834 out of twenty one knowledge questions and very limited of them are deficient in knowledge. Demographic characteristics of participants and knowledge score of COVID-19 by demographic variables clearly demarcated in (Table 2,3,4) Multilinear regression for KAP is compared with Demographic variables and the values are delineated in (Table 2.1, 3.1 and 4.1)

Awareness: Overall majority showed a satisfactory response for six attitude questions. 97.1% acquired awareness that areas are classified under Red, orange and Green zones based on novel corona virus cases (AW1). 95.5% acquired awareness that Areas with substantial numbers of positive cases would fall under Red zone (AW2). 94.7% acquired awareness that Areas with limited number of cases in the past and no surge of positive cases recently would

fall under orange zone (AW3). 97.5% acquired awareness that Areas with no corona positive cases would fall under green zone (AW4). 99.6% acquired awareness that, To prevent community transmission, individuals should avoid going out and should remain in their house (AW5). 99.6% acquired awareness and believed that Isolation / quarantine of the infected people and symptomatic treatment in a proper place are effective ways to reduce the spread of virus (AW6). Therefore, majority of the health science students and primary health care physicians assimilated decent awareness towards covid-19 pandemic. The Attitude score for correctly answered participants Mean± SD is 236.5±17.81 out of six attitude questions and extremely limited of them are deficient. Demographic characteristics of participants and Awareness score of COVID-19 by demographic variables clearly delineated in Table 3.

Table3:Demographic characteristics of participants and Awareness score of COVID-19 by demographic variables.

Characteristics		Number of Participants	Awareness Score (Mean ± SD)	F	P
Gender	Male	79	5.90 ± 0.41		
	Female	164	5.81 ± 0.56	5.74	0.02
Age Group(years)	18-29	233	5.84± 0.51		
	30-49	10	5.80 ± 0.63	0.322	0.57
Marital Status	Married	15	5.87 ± 0.51		
	Unmarried	228	5.84 ± 0.51	0.44	0.83
Occupation	Student	208	5.84 ± 0.500		
	Business	4	5.75 ± 0.50		
	Monthly Salaried	31	5.84 ± 0.63	0.061	0.94
Place of Residence	City	65	5.85 ± 0.50		
	Town	85	5.89 ± 0.31		
	Village	91	5.78 ± 0.63		
	Others	2	6.00 ± 0.00	0.78	0.51
Education Qualification	SSC/Inter	41	5.61 ± 0.73		
	Diploma	4	6.00 ± 0.00		
	Undergraduate	164	5.90 ± 0.40		
	Postgraduate	33	5.79 ± 0.65		
	Uneducated/illiterate	1	6.00 ± 0.00	2.922	0.02
Profession	Medicine	10	5.90 ± 0.31		
	Allied Health Sciences	128	5.91 ± 0.36		
	Nursing	95	5.73 ± 0.69		
	Others	10	6.00 ± 0.00	2.647	0.05

Table 3.1:Multiple Linear regression (Awareness scores – Demographic Variables).

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	6.59	0.80	8.20	0.00
Age	-0.20	0.23	-0.85	0.40
Profession	-0.04	0.05	-0.92	0.36
Gender	-0.08	0.07	-1.08	0.28
Occupation	-0.05	0.06	-0.81	0.42
Marital_status	-0.11	0.18	-0.60	0.55
Type_of_locality	-0.02	0.04	-0.36	0.72
Educational_qualifications	0.09	0.04	2.10	0.04
(Constant)	6.55	0.80	8.24	0.00
Age	-0.19	0.23	-0.82	0.41
Profession	-0.05	0.05	-0.97	0.34
Gender	-0.08	0.07	-1.08	0.28
Occupation	-0.05	0.06	-0.81	0.42
Marital_status	-0.12	0.18	-0.64	0.53
Educational_qualifications	0.09	0.04	2.17	0.03
(Constant)	6.14	0.45	13.62	0.00
Age	-0.11	0.19	-0.57	0.57
Profession	-0.04	0.05	-0.89	0.38
Gender	-0.08	0.07	-1.06	0.29
Occupation	-0.04	0.06	-0.70	0.48
Educational_qualifications	0.09	0.04	2.20	0.03
(Constant)	5.92	0.25	23.92	0.00
Profession	-0.04	0.05	-0.82	0.42
Gender	-0.08	0.07	-1.07	0.29
Occupation	-0.06	0.05	-1.09	0.28
Educational_qualifications	0.09	0.04	2.18	0.03
(Constant)	5.78	0.18	32.02	0.00
Gender	-0.08	0.07	-1.12	0.26
Occupation	-0.06	0.05	-1.12	0.27
Educational_qualifications	0.10	0.04	2.44	0.02
(Constant)	5.72	0.17	33.33	0.00
Gender	-0.07	0.07	-0.92	0.36
Educational_qualifications	0.08	0.04	2.20	0.03
(Constant)	5.60	0.11	51.97	0.00
Educational_qualifications	0.09	0.04	2.35	0.02

a. Dependent Variable: Awarenessscore
 *Awareness variable- Educational qualifications variables unvarying with demographics using Multiple linear regression endured significant.

Table 4: Demographic characteristics of participants and Practices score of COVID-19 by demographic variables.

Characteristics		Number of Participants	Practices Score (Mean ± SD)	F	P
Gender	Male	79	3.65 ± 0.76	0.426	0.51
	Female	164	3.62 ± 0.61		
Age Group (years)	18-29	233	3.62 ± 0.67	3.058	0.08
	30-49	10	3.80 ± 0.42		
Marital Status	Married	15	3.80 ± 0.41	4.691	0.03
	Unmarried	228	3.62 ± 0.67		
Occupation	Student	208	3.59 ± 0.69	2.49	0.09
	Business	4	3.75 ± 0.50		
	Monthly Salaried	31	3.87 ± 0.34		
Place of Residence	City	65	3.66 ± 0.64	0.413	0.74
	Town	85	3.67 ± 0.62		
	Others	2	3.50 ± 0.707		
Education Qualification	SSC/Inter	41	3.51 ± 0.84	0.794	0.53
	Diploma	4	4.00 ± 0.00		
	Undergraduate	164	3.63 ± 0.64		
	Postgraduate	33	3.70 ± 0.52		
	Uneducated/illiterate	1	4.00 ± 0.00		
Profession	Medicine	10	3.90 ± 0.31	0.932	0.43
	Allied Health Sciences	128	3.66 ± 0.64		
	Nursing	95	3.58 ± 0.62		
	Others	10	3.50 ± 1.26		

Table 4.1: Multiple Linear regression (Practices scores – Demographic Variables).

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.35	1.03		4.21	0.00
Age	-0.22	0.30	-0.07	-0.75	0.46
Profession	-0.09	0.06	-0.10	-1.52	0.13
Gender	0.04	0.09	0.03	0.37	0.71
Occupation	0.15	0.08	0.15	1.91	0.06
Marital_status	-0.09	0.24	-0.03	-0.40	0.69
Type_of_locality	-0.02	0.06	-0.03	-0.40	0.69
Educational_qualifications	0.01	0.05	0.01	0.11	0.91
(Constant)	4.38	1.01		4.33	0.00
Age	-0.22	0.30	-0.07	-0.75	0.46
Profession	-0.09	0.06	-0.11	-1.58	0.12
Gender	0.03	0.09	0.02	0.37	0.71
Occupation	0.15	0.08	0.16	2.00	0.05
Marital_status	-0.10	0.24	-0.03	-0.40	0.69
Type_of_locality	-0.02	0.05	-0.03	-0.42	0.68
(Constant)	4.44	0.99		4.47	0.00
Age	-0.22	0.30	-0.07	-0.75	0.45
Profession	-0.09	0.06	-0.10	-1.56	0.12
Occupation	0.15	0.07	0.15	1.97	0.05
Marital_status	-0.10	0.24	-0.04	-0.41	0.68
Type_of_locality	-0.02	0.05	-0.03	-0.42	0.68
(Constant)	4.11	0.57		7.27	0.00
Age	-0.16	0.25	-0.05	-0.63	0.53
Profession	-0.09	0.06	-0.10	-1.52	0.13
Occupation	0.15	0.07	0.16	2.10	0.04
Type_of_locality	-0.03	0.05	-0.03	-0.46	0.65
(Constant)	4.03	0.54		7.52	0.00
Age	-0.14	0.25	-0.04	-0.57	0.57
Profession	-0.09	0.06	-0.10	-1.59	0.11
Occupation	0.16	0.07	0.16	2.14	0.03
(Constant)	3.75	0.22		17.45	0.00
Profession	-0.09	0.06	-0.10	-1.52	0.13
Occupation	0.13	0.06	0.14	2.14	0.03
(Constant)	3.45	0.09		38.22	0.00
Occupation	0.14	0.06	0.14	2.24	0.03

a. Dependent Variable: Practices_score
 *Practices variables i.e., Occupation variable unvarying with demographics using Multiple linear regression endured significant.

Practices: About practices regarding four questions, majority of the health science students and primary health care physicians blend in decent practices towards covid-19 pandemic. Practice score for correctly answered participants Mean± SD is 220.5±17.81 and very limited of them are deficient.93%practiced not movingout to meet their friends / relatives in this lockdown period (P1).99.2% regularly washing their hands at home for effective hand hygiene (P2).79% practiced regularly by wearing mask irrespective of symptoms (P3).91.8% were not allowing any visitors / friends at their home (P4). Demographic characteristics of participants and Practices score of COVID-19 by demographic variables delineated in Table 4.

CONCLUSION

Online cross-sectional study by health science students and primary health care physicians towards covid-19 pandemic outbreak presented Good knowledge,Awareness and practices comprehended in this.Virtually very few published reports found on the KAP's .However, little of them discloseddeprived knowledge, Awareness and Practice of those questions related to COVID 19 pandemic outbreak and this should be changed with help of social media and other print, electronic media by intense health education programmes and other hygienic practices thus to achieve the 100% of Knowledge, Attitude and best Practices in this critical health emergency.

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