Research Article

Evaluation Of The Execution Of Precautionary Measures To Diminish The Prevalence Of Covid-19 Pandemic At Al-Nasiriya City Southern Iraq

RAWAA KAMEL ABD

Department of Community Health Techniques, Kut Technical Institute, Middle Technical University, Baghdad, IRAQ.
Email: rawaa9922@gmail.com

ABSTRACT

COVID-19 consider a great worldwide health problem effect all person at any age and from both sex that placing a major economic burden on public health systems. This A cross sectional study consist of 460 respondents conducted to identify the commitment extent of people to the standards of prevention measures against corona virus at Al-Nasiriya city at Thi-qar governorate. The study conducted by special questionnaire consist of three parts the first part contain demographic characteristics, second part , concern with implementation of personal preventive measure, third one was about Sterilization and disinfection of tools and surfaces. The study results reveal that majority of study sample who applied personal preventive measure at age group (21-30), highly statistical association was found between implementation of personal preventive measures and age at p-value (0.000) also in respect to gender table illustrate that female always applying these measures rather than male, there was significant association at p-value (0.016). From the current study, we conclude that there is a statistically significant relationship between the application of personal protection measures and gender, as women are more committed to implementing these measures than men.

Keywords: COVID-19, Prevalence, Prevention, Pandemic, hand washing

INTRODUCTION

The epidemic that occurred because of the two beta coronaviruses , "sever acute respiratory syndrome coronavirus (SARS-CoV)" and "Middle East respiratory syndrome coronavirus (MERS-CoV)" offer ascent to further than 10 000 collective cases in a bygone two decades, with rate of death 10% for SARS-CoV & 37% for MERS-CoV Respectively followed by appearance of a new type of corona virus (de Groot et al., 2013; Zaki et al., 2012) . at December 2019, different pneumonia cases from unknown beginning points developed in Wuhan, Hubei domain, China. The majority of these cases was reported with exposure to the market of Huanan Seafood Wholesale that selling various sorts of live animals. The disease immediately spread, locally, to various pieces of China, and afterward around the world, to various countries across 6 continents(Dong et al., 2020; Huang et al., 2020).The ascent of a novel human coronavirus, SARS-CoV-2, has become an overall medical issue causing intense respiratory tract sicknesses in human. transmissions structure Human-to-human have been depicted with incubation period between 2-10 days, empowering its spread by methods of droplets, contaminated hands or surfaces that was very much portrayed on 3 January 2020 (Kampf et al., 2020)(Abd & Raman, 2020). On 9th of April, Confirmed cases were reach 2.5 million recorded infections furthermore, 90,000 deaths were reported globally, According to WHO (COVID-19) Situation Report – 86 , In Eastern Mediterranean Region 107 389 confirmed (3751) 5395 deaths (140) , in Iraq confirmed cases was (1400) while the new cases was (22), the total death was (78) every one of the new cases was reported by contact transmission (Alsalih et al., 2020) (Numbers, 2020). hand hygiene, materials, tools and avoid contact is one of the most important measures in prevent the outbreak related viral contamination, since its assume significant role in decrease the spread of diseases (Siddharta et al., 2017). The present study was applied to assess the implementation of the standards of prevention measures against corona virus at Al-Nasiriya city at Thi-qar governorate.

Methods

A cross sectional study design was chosen to reach the study aim, a pilot study was applied on a sample of 30 person before the start of the study after that the data were analyzed to identify the reliability and validity of the questionnaire and the internal consistency by using the alpha cronbagh test. The alpha cronbagh value test was 90.

The time period that used for conduct the study was 10 days starting from the from 2^t April to 12 April 2020 were directed with the constructed questionnaire. This questionnaire was structured by researcher in such way to discover the implementation of preventive measures among Al-Nasiriya population.

A total of 460 persons from male and female who was answered the questionnaire were included. The researcher exclude those who didn't fill the sheet completely .the study form consist of three parts, the first part contain demographic information covered age, gender, habitation, and educational level. Second part, concern with implementation of personal preventive measure as(finally declined kissing and shaking hands, Staying at home as much as possible,........etc.) Third one was about Sterilization and disinfection of tools and surfaces such as (use antiseptics and disinfectants to clean hand-touch surfaces, wear gloves before starting cleaning, wash reusable tools such as brooms and mops with hot water at a temperature of 60-90D after cleaning, ……. etc.). The preventive measures that use in questionnaire was based on World Health Organization (WHO) and . Coronavirus disease (COVID-19): Awareness resources from Canada government.

Statistical analysis: all data entered excel then analyzed by using the software "Statistical Package of Social Science (SPSS)" IBM version 20. Chi-square tests is used in this study, to analyze the association between demographic features and preventive measures, $p<0.05$ (two tailed), identified as statistically significant In addition, descriptive statistics frequency and percentile is used to recognize the characteristics of the population of our study.

Results

The study respondents (50.9%) were male and (49.1) were female and most those (47.2%) were detected between the age category of 21-30 years. Around 81.3% of the respondents were habitat in urban areas. In respect to educational level, the distribution of study population was observed as university level (85.2%) from the total , secondary level (11.7%) and primary (3%), finally according to preventive measures the study showed that 44.8% from population sometimes applying it while in respect to Apply of surfaces &tools sterilization and disinfection table showed most people have applied these protective measures to protect themselves (60%) .(table 1)

The present study reveal that majority of study sample who applied personal preventive measure at age group (21-30), highly statistical association was found between implementation of personal preventive measures and age at p-value (0.000) also in respect to gender table illustrate that female always applying these measures rather than male, there was significant association at p-value (0.016). there wasn't any significant association between educational level and persona preventive measure in other hand the highest percentage of rural area always apply the preventive measures while in urban sometimes do that at table (2)

The relationship between Sterilization and disinfection of tools , surfaces and demographic characteristic represented in table (3), our study result shows most respondents follow sterilization methods for tools and surfaces, significant association among sterilization measures and age&, residence whereas no significant relationship related to gender and educational level.

Discussion

COVID-19 consider a great worldwide health problem effect all person at any age and from both sex that placing a major economic burden on public health organizations. WHO & European Centre for Disease Prevention and Control has put guideline in hand hygiene, personal protective equipment and health care because its play important role in prevent transmission of corona infection. this study result find out majority of population adopt these protective measures and this considered the main route to diminish virus transmission (Siddharta et al., 2017; World Health Organization (WHO), 2020) For this reason, it is important to notice that a few cases in Iraq according to WHO report at 15 April 2020, and it is worth noting that the

deaths that happened at elderly and mostly due to chronic diseases. Also female adopt these measurers more than male this me be due to female stay at home rather than male. This study reveal that most study sample applied sterilization method by antiseptics and disinfectants to clean hand-touch surfaces like cans, tables, power presses, televisions to reduce the infection because the virus has ability to remain infectious on inanimate for 9 days at room temperature, these disinfectant reduce virus infectivity(Kampf et al., 2020).

Conclusion

The study conclusion was there is a statistically significant relationship between the application of personal protection measures and gender, as women are more committed to implementing these measures than men. On the other hand, there is no statistical relationship between gender and the application of sterilization and disinfection procedures for tools and surfaces there is no statistical relationship between the educational level and the implementation of prevention measures.

Ethical clearance

Before running, the study oral consent was taken from all study participants.

Limitation

Because of the curfew I could not reach the largest number of respondents also, there are not find any previous studies about applying preventive measures to support discussion of the results in this research.

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Table (I): Distribution of the respondents according to demographic characteristics

Variables		Frequency	Percent %
Age	10-20	42	9.1
	21-30	217	47.2
	31-40	114	24.8
	41-50	63	13.7
	51	24	5.2
Gender	male	234	50.9
	female	226	49.1
Residence	rural	86	18.7
	urban	374	81.3
Educational level	primary	14	3.0
	secondary	54	11.7
	university	392	85.2
Apply of personal preventive measures	Yes always	199	43.3
	Sometimes	206	44.8
	No	55	12.0
Apply of surfaces &tools sterilization and disinfection	Yes always	279	60.7
	Sometimes	120	26.1
	No	61	13.3
Total		460	100%

*P- value < 0.05

Table (II): Association between personal preventive measures and demographic characteristics

Variables		Personal preventive measures			d.f	P- value*
		Yes always	Sometimes	No		
Age	10-20	9	24	9	8	0.000
	21-30	92	100	25		
	31-40	56	41	17		
	41-50	23	38	2		
	51	19	3	2		
gender	male	96	100	38	2	0.016
	female	103	106	17		
Residence	rural	24	22	40	2	0.000
	urban	175	184	15		
Educational level	primary	10	2	2	4	0.215
	secondary	23	24	7		
	university	166	180	46		
Total			460			

*P- value < 0.05

Table (III): Association between Sterilization and disinfection of tools, surfaces and demographic characteristics

Variables	Sterilization and disinfection of tools and surfaces			d.f	P-value*
	Yes always	Sometimes	No		

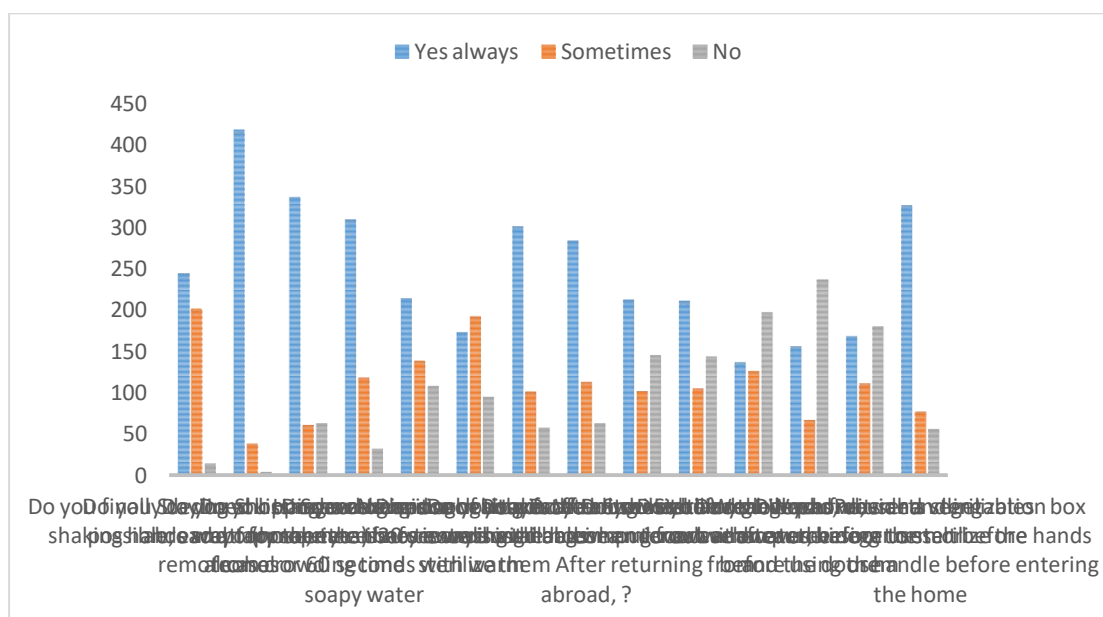|						
Age	10-20	15	14	13	8	0.000
	21-30	126	57	34		
	31-40	85	20	9		
	41-50	32	26	5		
	51	21	3	0		
Gender	male	144	58	32	2	0.806
	female	135	62	29		
Residence	rural	47	18	21	2	0.003
	urban	232	102	40		
Educational level	primary	11	2	1	4	0.229
	secondary	27	20	7		
	university	241	98	53		
Total			460			

*P- value < 0.05

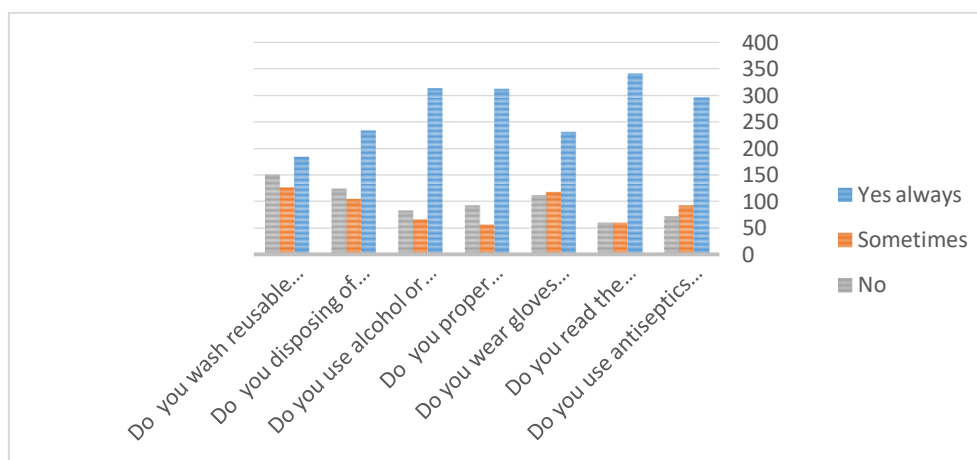**Fig.(I): Respondents' responses to personal preventive items**

Fig.(2): Respondents' responses to sterilization and disinfection of tools and surfaces