Assess the Facts and Myths of Covid-19 among Patients in Tertiary Care Hospital Karachi Pakistan

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ABSTRACT

OBJECTIVE: To assess facts and myths of the Coronavirus (Covid-19) among patients in tertiary care hospital Karachi, Pakistan.

METHODOLOGY: A descriptive study was carried out at Out Patients Department from October 2020 to February 2021 in Dow hospital Karachi. A total of 200 participants were recruited from those who came outpatient department for their follow-up and whose age was>18 years, using the non-probability purposive method. Exclusion criteria of the study involved those patients who were not willing and had any history of serious illness. Data was collected through a questionnaire, which has 02 parts. 1st part is about demographic information, and 2nd part includes 23 items (facts=12 items and myths=11 items) related to realities and misconceptions of Coronavirus. SPSS 21 was used for data entry and data analysis.

RESULTS: Out of 200 participants, 136(68%) were unaware of facts, the highest percentage 22(16.2%) about the age and comorbidities, 20 (14.7%) social distance, and 18 (13.2%) wearing a mask. While: 159 (79.5%) had myths, the highest prevalent myths were about conspiracy 22(13.8%), home remedies 26 (16.3%), and warm water 21(13.2%).A majority of the participant's (32.0%) age lies between 31 to 40 years and, male (71.0%), married (64.0%), Post-graduated (63.0%), own business (32%), income lies between 16000-30000 and Sindhi culture(61.5%).

CONCLUSION: Present study highlighted, a vast majority were not aware of the facts and myths of Covid-19.For instance: facts about old age and co-morbidities, social distance, wearing mask, and myths regarding conspiracy, home remedies, and warm water.

KEYWORDS: Coronavirus, Pandemic, Facts, Myths.

INTRODUCTION

Globally, the pandemic outbreak of Covid-19 was declared on 11th March, 2020 by WHO (World Health Organization) that quickly evolved more than 80% of the countries within a limited time[1]. According to WHO[2] total number of cases and death rate of Covid-19 in different countries is; Bangladesh total cases: 1,517,166 and the death rate: 26,628; Egypt cases: 290,027 and death rate: 16,789; Saudi Arabia cases: 545,243 and death rate: 8,579; Iran cases: 5,129,407 and death rate: 110,674 and in Pakistan reported cases: 1,179,305 and death rate 26, 175.

The main route of transmission of an infection is the mucous membrane of the mouth, nose, and eyes through close contact with an aerosol of an infected person[1,3]. The incubation period ranges from 1 to 14 days. The most common age involved 30 to 79 years old, and few were also diagnosed with coronavirus below 15 years of age[4]. More than 50% of patients diagnosed with covid-19 had a history of co-morbid like hypertension, diabetes mellitus etc[5]. In mild cases, signs and symptoms involved fever, fatigue, dry cough, and headache[4,5].

In the severe type of infection, manifestation included severe respiratory distress and compromised oxygen saturation, and even death can occur[3]. There is no specific treatment to date hence suspected patient quarantine at home for 14 days is mandatory[5].WHO recommended some preventive measures in order to combat pandemic outbreak: likewise social distance, frequent washing hands, wearing a mask, and vaccination properly and avoids going crowded places, and early screening[1,2].

In the past, most were affected by myths of tuberculosis, leprosy, and influenza due to misinformation[6,7]. Similarly, numerous misconceptions are waving associated with treatment or home remedies and routes of transmission and preventive measures of Covid-19 on social media and websites[8]. In the meantime, the health care system failed to provide a successful solution to this disease[6]. However, many facts had emerged but due to a lack of scientific evidences that turned into myths. Therefore, people are practicing myths without questioning. Likewise: usage of garlic soup, vitamins and herbals, and drinking hot water[6,7].

It is also an illusion that contact with pets or animals

can transmit the infection, yet no such evidence[9]. Moreover, most are ambiguous due to discrepancy debates of politicians and religious scholars regarding Covid-19 [10].In Pakistan, because of limited literature about facts versus myths, therefore there is worth exploring facts and myths among patients in tertiary care hospital Karachi, Pakistan,

METHODOLOGY

A descriptive study was conducted among patients in tertiary care hospital (Dow hospital; Outpatient department), Karachi between October 2020 to February 2021. A letter of approval was obtained from the Institutional Review Committee of Dow University Health Sciences Karachi (Reference No: DIONAM/MSN/2020-18/39/approval/2020). Before the study, consent had been signed by all participants. Participants were enlisted in the study who were present at the outpatient department for their follow-up and whose age was>18 years, using the non-probability purposive sampling method. Exclusion criteria of the study involved those patients who were not willing and had any history of serious illness.

The sample size was calculated through an online open-epi calculator by considering a 5% margin of error and 95% C.I with 90% of knowledge of the previous study from China (2020), the title of the study was "Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak"[11]. The initial sample size of the study was 139 which were increased to 200 for maximal illustration of population. A questionnaire was developed after extensive literature review[12-13]. For its validity and reliability, a pilot test was conducted among 10% of the same population of the study. A Kuder-Richardson 20 (KR-20) confirmed its estimated alpha co-efficient 0.86.

Data was collected by administrating a questionnaire, which has 02 parts. 1st part: demographic variables comprised of 07 questions: age, sex, the status of marriage, and education, profession, monthly income, and culture. 2nd part consisted of 23 items (facts=12 items and myths=11 items) regarding realities and misconception of clinical symptoms, predisposing factors, cautionary measures, and management of Coronavirus. The patient had given 03 choices for a response such as: Yes, No, and don't know. Correct and incorrect responses were filtered manually and the software SPSS 21 was used for data analysis by applying frequency and percentage.

RESULTS

Out of 200 participants: 136 (68%) of participants were not familiar with facts, and 159 (79.5%) had myths of Covid-19. (**Figure I**)

The highest percentage of participants had not given correct answers of facts regarding old age and comorbidities 22(16.2%), social distance 20(14.7%)

and wearing a mask 18 (13.2%). **Table I.**
Mostly Participants had myths about conspiracy 22 (13.8), home remedies 26(16.3), and warm water 21 (13.2). **Table II.**
A majority of the participant's 64 (32.0%) age group lies between 31 to 40 years and, most were male 142 (71.0%) whereas 58 (29.0%) were only female. The highest percentage of participants were married 128 (64.0%), Post-graduate 126 (63.0%), who had own business 66(3%), their income lies between 16000-30000, and their culture was Sindhi 123(61.5%) **Table: III.**

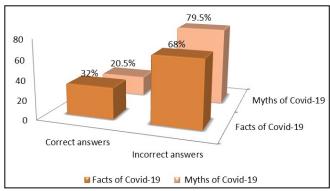**FIGURE I: TOTAL PERCENTAGE OF FACTS AND MYTHS OF COVID-19**

TABLE I: FREQUENCY (%) OF FACTS OF COVID-19 AMONG PARTICIPANTS

Items	Correct 64(32%)	Incorrect 136(68%)
Fever, tiredness and dry cough are the most common manifestation of Covid-19.	8(12.5)	12(8.8)
Virus spread via respiratory droplets of infected individuals	3(4.7)	0(0.0)
Frequent wash hands for 30 seconds	10(15.6)	17(12.5)
No Specific treatment is available for Covid-19.	8(12.5)	9(6.6)
An older person with multiple co-morbid and obese has more probabilities to have corona disease.	3(4.7)	22(16.2)
Contact with animals can cause Covid-19.	2(3.1)	5(3.7)
Vaccine of Covid-19 is effective.	7(10.9)	8(5.9)
Wearing masks can reduce the transmission of infection	5(7.8)	18(13.2)
Children and young adults also need to take preventive measures.	9(14.0)	11(8.0)
Individuals must avoid crowded places.	2(3.1)	10(7.3)
Social distance is effective way to reduce the spread of the virus.	3(4.7)	20(14.7)
An infected person should quarantine for 14 days.	4(6.2)	4(2.9)

Rukhsana M. Haroon, Muhmooda A. Razzaque, Sabir Hussain, Rubina Hafeez, Abdul Razzaque

TABLE II: FREQUENCIES (%) OF MYTHS OF COVID-19 AMONG PARTICIPANTS

Items	Correct 41(20.5%)	Incorrect 159(79.5%)
Sunlight can destroy covid-19 infection.	2(4.9)	12(7.5)
Cool- weather can cause covid-19 spread.	8(19.5)	10(6.3)
Coronavirus is a conspiracy.	4(9.8)	22(13.8)
Home remedies are helpful to treat Coronavirus.	7(17.0)	26(16.3)
A mosquito bite can spread Covid-19 infection.	0(0.0)	5(3.1)
Old age people are more affected than younger	9(22.0)	15(9.4)
People with low immune are more affected	0(0.0)	11(6.9)
Disinfection of the environment can protect from coronavirus.	5(12.2)	13(8.2)
Garlic soup can prevent you from infection	3(7.3)	7(4.4)
Balanced nutrition can prevent the coronavirus.	0(0.0)	17(10.7)
Drinking lots of hot drinks can stop Corona infection.	3(7.3)	21(13.2)

TABLE III: CHARACTERISTICS OF DEMOGRAPHIC VARIABLES N (%)

Characteristics	N	%
Age groups(Years)		
20-30	40	20.0
31-40	64	32.0
41-50	63	31.5
>50	33	16.5
Educational level		
Primary	28	14.0
Intermediate	46	23.0
Postgraduate	126	63.0
Income monthly (PKR)		
None	47	23.5
1000-15000	31	15.5
16000-30000	67	33.5
More than 30000	55	27.5

Culture		
Sindhi	123	61.5
Balochi	5	2.5
Urdu	67	33.5
Pathan	5	2.5
Sex		
Male	142	71.0
Female	58	29.0
Marital status		
Married	72	36.0
Unmarried	128	64.0
Profession		
Government	33	16.5
Private	57	28.5
Self-business	64	32.0
Students	34	17.0
House wife	12	6.0

DISCUSSION

The current study revealed a majority of participants 136 (68%) had overall incorrect information about facts while a lower percentage 64(32%) had reported correct responses. In support of the present study, Mannan DK 2020[14] found the majority was not aware of Covid-19, and contradicted by an online survey by Sultana MS 2020[15] study, which showed 54.9% of subjects knew about Covid-19. Opposite to this study, Erfani et.al[16] explored 85% of people in the study had knowledge of covid-19. While Abdelhafiz 2020[17] study in Egypt showed that 90% of participants were well aware of facts of covid-19.

The present study also highlighted further incorrect responses of participants about facts of covid-19. The majority of participants 22(16.2%) did not know that chances of having covid-19 infection increased in older and persons with co-morbid, 20(14.7%) social distance, and 18(13.2%) wearing a mask is effective ways to stop infection. Whereas, Zhong 2020[18] found a high percentage of participants reported the real based information about social distance(90.4%), (92.0%) wearing masks are the best strategy to control infection, and older people ((73.9%)) have more chance of getting severity of this disease. In another descriptive study by Alhusseini NK et.al[19] approximately 97.2% of participants agreed to wear the mask, and washing hands frequently are preventive measures of infection of covid-19. About 99% of participants have knowledge related to the

most common manifestation of having a disease of Covid-19.

In the present study, a total of 79.5% of participants hold myths of covid-19 while 20.5% were aware of prevailed myths. These results parallel to the findings of the current study, it illustrates a vast number of subjects had a misperception of covid-19[1]. While Mekonnen 2020[20] study in Ethopia found 57% had misperception of covid-19. Furthermore, a descriptive survey was held in Nigeria showed that >50% of participants were well known about few misperceptions of corona diseas[21.] Another descriptive study from Saudi Arabia indicated lower (66.9%) knowledge about myths comparing to the present study[22.]

Moreover, participants in the present study who hold myths, the highest percentage was about conspiracy 22(13.8%) of Covid-19, home remedies 26(16.3%) can cure covid-19, and drinking hot water 21(13.2%) can prevent corona infection. Similarly, Reddy 2020[23] study in India found that participants had misconceptions regarding home remedies like ginger and vitamin D and C can prevent a person from getting an infection. According to Okunlola 2020[12] study in Nigeria shown that misperception was correctly identified by the study population likewise: people of any age (95%) can be affected by covid-19, 88% thought that mosquito bites cannot transfer certain types of infection, 60% of participants believe that antibiotics are ineffective for a cure, and 54% had sure that herbal remedies are not so effective to treat the covid-19 infection.

In this study, almost 64 (32.0%) participants age were between 31 to 40 years, and 142 (71.0%) were male, 128 (64.0%) were married and 126 (63.0%) highest qualification was postgraduate. These findings are well ties with the cross-sectional study of Iraq[13], while inconsistent with a descriptive study from Afghanistan[24], disclosed that the largest number of participants 82 (38%) were female while the age group was nearly the same with our study. In opposite, one of the descriptive studies established that 50% of participants reported from 17 countries were younger. Another cross-sectional survey was conducted in the USA[25] found sixty percent of people's age group lies between 16 to 24 years. Similarly, a study from India exhibited 30% of accomplices' age group was lies between 15 to 18 years[26.]

CONCLUSION

Present study highlighted that a vast majority were not aware of the facts and myths of Covid-19.For instance: facts about the old age and comorbid, social distance, and wearing a mask, and hold myths regarding conspiracy, home remedies, and hot water.

Ethical permission: Dow Institute of Nursing and Midwifery Ojha Campus Dow University of Health Sciences Karachi, synopsis approval letter No. DIONAM/MSN/2020-18/393, dated 8-12-2020.

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DATA SHARING STATEMENT: The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions

AUTHOR CONTRIBUTIONS

Haroon RM: Idea, design, drafting, manuscript writing
Razzaque MA: Review, final approval of manuscript
Hussain S: Statistical analysis, editing of manuscript
Hafeez R: Literature review
Razzaque A: Data collection, data entry, drafting

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