

Original Article

COVID-19 Pandemic: Myths and Beliefs Among Patients Attending Gynae Outdoor

Rashida Sultana¹, Maimoona Hafeez², Iffat Hamid³

¹Associate Professor, ²Head of Department, ³Senior Registrar
Department of Obstetrics & Gynaecology, Sharif Medical & Dental College, Lahore

Correspondence: Dr. Rashida Sultana

Associate Professor -Department of Obstetrics & Gynaecology
Sharif Medical & Dental College, Lahore
drrashidasultana@gmail.com

Abstract

Objectives: To determine the frequency of COVID-19 related myths and beliefs and its associated factor among women attending gynae outdoor

Methodology: This descriptive study was conducted at Sharif Medical City hospital, Lahore from June 2020 to August 2020. Data was collected on a questionnaire comprised of three sections. Section one included demographic characteristics of study participants like age, education, occupation. The second section contains “10 items questionnaire” that is based on different myths circulating in the society. Response of study participants was noted in a binary fashion that is yes or no. In the third section source of information of these myths like social media, television, personal experience, family, friends or any other was enquired. They can choose more than one source of information. Level of myths was categorized as mild, moderate, and severe based on a percentage of perception of myths as ≤33%, 34-66%, and 67-100% respectively. Data was analyzed using SPSS 23.

Results: Total number of women who filled the questionnaire were 400. Their mean age was 28.40±5.79. The level of myths about COVID-19 pandemic was mild, moderate, and severe i.e. 150 (37.5%), 139(34.8%), and 111(27.8%) respectively. The level of myths was significantly associated with age groups (p=0.00) and education status (p=0.00); it was higher in older age groups and in women with lower education level. Major source of dissemination of COVID related myths was social media in 285(60.10%).

Conclusion: Level of COVID-19 related myths and beliefs has significant association with age and education status. Social media is the major source of such misinformation.

Keywords: beliefs, COVID-19, myths, pandemic

Cite this article as: Sultana R, Hafeez M, Hamid I. COVID-19 Pandemic: Myths and Beliefs Among Patients Attending Gynae Outdoor. *J Soc Obstet Gynaecol Pak.*2020; Vol 10(4):260-264.

Introduction

Myth is derived from Greek, “mythos” that means story or word.^{1, 2} Myths are traditional stories that are created within cultures in order to offer explanations for phenomena. While belief is the feeling of being certain that something exists or is true.^{1, 2} Myths have been prevalent about diseases, epidemics and pandemics. In the past, pandemics resulted in high morbidity and mortality due to lack of quick information, and timely access to expert advice. Today the world of internet, social and electronic media has provided very useful information about COVID-19 epidemiology, its symptomatology, preventive measures, and treatment options to the community across the globe. But on the

other hand, it has also posed challenges of disinformation as well as information overload resulting in undue distress and negative impact on the physical, mental, and social wellbeing of community throughout the world.³ These myths and misbeliefs include overstated COVID-19 related statistics, controversies about the origin, spread, prevention, and treatment of COVID-19, self-medication, in local as well as international community.³ It is reported that people die of excessive alcohol intake and chloroquine as self-medication for prevention of this disease.^{4, 5}

Myths travel from one person to the other through different channels like electronic and social media, from

family and friends etc. World health Organization responded and rejected the myths and beliefs circulating in media on their website as well as in their press conferences.⁶ Similarly Government of Pakistan, local health authorities, and the doctors' community at the individual level has also addressed this issue and created awareness among general public about facts related to COVID-19 pandemic.⁷

The rationale of this study is to determine the frequency of such circulating myths among women, and its association with their age, education, and occupation. Moreover, identification of the source of their information leading to such myths and misbeliefs may be helpful to demystifying the myths by creating awareness at mass level.

Methodology

This descriptive study was conducted from August 2020 to September 2020 at Sharif Medical City hospital, Lahore after approval from Institutional Ethical Review Committee; no. SMDC/SMRC/67-20. The calculated sample size was 385 with an assumed proportion of 0.50; with acceptable difference of 0.05 and confidence level of 95%. Non probability convenience sampling technique was used. All the pregnant, postnatal women, and patients presenting with gynaecological problems in the gynae outpatient department were included in the study after their consent.

Keeping in view the COVID-19 myths circulating in the community as well as on social, and electronic media online literature was searched.^{3, 4} Language for data collection is the national language of Pakistan that is "Urdu" as study participants were from general public. Simple, short, closed ended items; ten in number; were phrased with binary response that is "Yes" or "No". The questionnaire for experts' review was sent to nine subject specialists, however, eight responded. Their reviews were entered into the Microsoft Excel sheet; Item Content Validity Index (I-CVI), and Scale Content Validity Index (S-CVI/Ave), (S-CVI/ UA) were calculated. (S-CVI/Ave) and (S-CVI/ UA) is 0.98 and 0.9 respectively. In order to ensure correct content interpretation "cognitive pretesting" was done with the study participants who fulfilled inclusion criteria. Pilot testing was done. Data was entered in SPSS 23, and Kuder Richardson 20 (KR-20) test was applied to check the scale reliability that is 0.69.

Data was collected on a questionnaire comprised of three sections such that demographics, myths about COVID-19 pandemic, and source of its information. Section one included demographic characteristics of study participants like age, education, occupation. The second section contains "10 items questionnaire" that is based on different myths circulating in society. Item phrasing is done using simple "Urdu" language. Response of study participants was noted in binary fashion that is yes or no. In third section source of information of these myths like television, social media, personal experience, family, friends or any other was enquired. They can choose more than one source of information. After collecting data; all woman were counseled to demystify their myths to improve their awareness and compliance regarding COVID-19 preventive measures.

Data was entered and analyzed in SPSS 23. Quantitative data like age analyzed using mean, and standard deviation. While percent was used to analyze qualitative variables like age groups, education level, occupation, and items regarding myths, and source of information. Level of myths was categorized as mild, moderate, and severe based on percentage of perception of myths as $\leq 33\%$, 34-66%, and 67-100% respectively. Association of myths with age of study participants, their education, and occupation was measured using Chi square test.

Results

A total number of women who filled the questionnaire were 400. Their mean age was 28.40 ± 5.79 ranging from 17 to 55 years. Most of the study participants were from age group of 21-30 years. Most of the women i.e. 375(93.3%) received the various degree of education while 25(6.3%) were illiterate. The majority of the women were housewives i.e. 382(95.5%) as detailed in table I. Frequency of various myths among women have been shown in table II. The level of myths about COVID-19 pandemic was mild, moderate and severe i.e. 150(37.5%), 139(34.8%), and 111(27.8%) respectively. The level of myths was significantly associated with age groups ($p=0.00$) and education status ($p=0.00$) however it does not reveal significant association with occupation as shown in table III. The major source of dissemination of COVID related myths was social media followed by television as shown in figure I.

Table I: Demographic characteristics of study participants

Demographics		N (%)
Age groups (years)	13-20	21(5.3)
	21-30	305(76.3)
	31-40	61(15.3)
	41-50	9(2.3)
	51-60	4(1)
	Total	400(100)
Occupation	House-wives	382(95.5)
	Working women	13(3.3)
	Others	4(1)
	Total	400(100)
Education	Illiterate	25(6.3)
	Primary	40(10.0)
	Middle	63(15.8)
	Matric	74(18.5)
	FA	60(15.0)
	Graduation	104(26.0)
	Total	400(100)

Table III: Association of age, occupation & education with myths and beliefs about COVID-19 pandemic

Level of myths & beliefs		Mild N (%)	Moderate N (%)	Severe N (%)	Chi-square
Age groups (years)	13-20	1 (0.25)	13 (13.25)	7 (1.75)	0.00
	21-30	124 (31)	102 (25.5)	79 (19.75)	
	31-40	23 (5.75)	24(6)	14 (3.5)	
	40-50	2 (0.5)	0 (0)	7 (1.75)	
	51-60	0 (0)	0(0)	4(1)	
Occupation	House-wives	144 (36)	130 (32.5)	108 (27)	0.60
	Teacher	5 (1.25)	6 (1.5)	2 (0.5)	
	Others	1 (0.25)	3 (0.75)	1 (0.25)	
Education	Illiterate	3 (0.75)	6 (1.5)	16 (4)	0.00
	Primary	3 (0.75)	7 (1.75)	30 (7.5)	
	Middle	14 (3.5)	26 (6.5)	23 (5.75)	
	Matric	24 (6)	30 (7.5)	20(5)	
	FA	32 (8)	16 (4)	12 (3)	
	Graduation	58 (14.5)	37 (9.25)	9 (2.25)	
	Masters	16 (4)	17 (4.25)	1 (0.25)	

Table II: Frequency of myths and beliefs about COVID-19

Myths & Beliefs	Yes N (%)	NO N (%)
Is corona pandemic a lie?	113(28.3)	287(71.8)
Is corona pandemic part of international conspiracy?	160(35)	260(65.0)
Are the doctors, and government using corona pandemic for increase in international aid?	209(52.3)	191(47.8)
Has Corona virus being spread in order to reduce global population?	132(33.0)	268(67.0)
Do you think that corona virus spread can help in getting more foreign aid to the government?	274(68.5)	126(31.5)
Are home remedies more helpful than medical treatment in this disease?	200(50.0)	200(50.0)
Does laboratories intentionally give positive results for COVID-19?	155(38.8)	245(61.3)
Is it true that death of the patient is because of some poisonous injection?	139(34.8)	261(65.3)
Has Corona virus being spread to increase the sale of some medicine?	142(35.5)	258(64.5)
Are the doctors paid on the death of the patient due to corona virus?	138(34.5)	262(65.5)

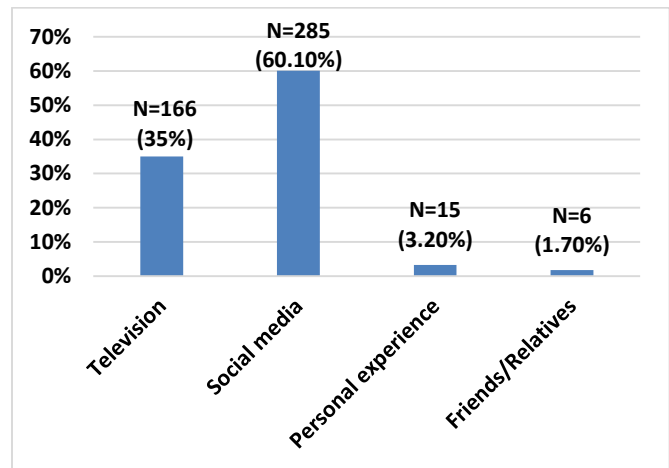


Figure I: Source of myths and beliefs

Discussion

COVID-19 disease first originated in Wuhan city of China. It has affected the world in no time. Myths and beliefs remained associated with the emergence of its outbreak, its rapid spread leading to pandemic, preventive measures, and treatment modalities at local and international level. In developing countries like Pakistan the health care workers have to fight against this disease with the limited available resources on one

hand and have to deal with the misconceptions, and myths of their people on the other hand.⁸

In current study, the mean age of the study participants was 28.40±5.79 years. Most of them were in young age group i.e. 21-30 years, and 382 (95.5%) were house wives. Only 25(6.3%) were illiterate but there were varying levels of myths and beliefs in study participants i.e. mild in 150(37.5%), and moderate to severe in 139(34.8%), and 111(27.8%).

The frequency of different myths and misbeliefs have been detailed in table II. Thirty four percent of study participants believe that COVID-19 pandemic is fake. It is a very dangerous behavior because this is the group of the population who don't adopt preventive measures and become a source of infection and further deteriorate the situation. Fifty percent of study participants feel that home remedies are more helpful than medical treatment. A study conducted by Kebede et al, identified myths related to the selected food items, hot weather, traditional medicine, and alcohol drinking, ranging from 15.1% to 54.7%.⁹

A significant number of participants' believe that it is part of an international conspiracy and it has been spread to reduce the population of the world. Government overstate the facts and figures to get more international Aid. They were also in opinion that laboratories give fake results. COVID-19 related mortalities were not accepted by the attendants. This study revealed that 34.8% believe that some poisonous injections are given to patients and another 34.5% have a misconception that doctors receive money for each mortality. It was very challenging and discouraging for the doctors working in high dependency units putting their life in danger to save lives of patients infected with COVID-19. True stories of the heroes who are serving, and scarifying their time, family, and health, and lives should be shared rather than the myths. Patients who recover must spread their positive experiences to boost the community. Myths and misbeliefs must be addressed and awareness must be created by short demystifying promos at media. Information sources must ensure the authenticity of each information.¹⁰ Health advocates, scholars, teachers, and medical students must take initiative to spread correct information and discourage the wrong perspectives.

The level of myths was significantly associated with age groups ($p=0.00$) and education status ($p=0.00$). So young people have lower levels of myths than older people. It may be because of the fixed mindset of older

people, and lack of awareness. Moreover higher education level is associated less frequency of myths. It may be because of the increased awareness, accessibility and utilization of the authentic resources.

A major source associated with these COVID related myths was social media. In this era when most of people have access to social media, it is very crucial to control the spread of such myths by implementing appropriate policies for media regulations. There should be separate guidelines and SOP's for pandemics. The policy should be made to use these mediums for the betterment of people by creating mass awareness.¹¹

Television was the second source of myths. Television is a mode of information transfer that is present in every house so government must ensure that information channels broadcast only verified and authentic information. Electronic and print media should be the source of creating awareness rather spreading misinformation. World Health Organization and Health Advisory of Pakistan has provided clear information on myths and facts about COVID-19 pandemic. Every information circulating in media must be clarified from authentic source like WHO or Pakistan health advisory and doctors.^{6, 12}

Other sources of such information were identified as personal experience in 3.1% and friends and family in 1.7%. It may be due to misconception or individual's perception. It is to understand that control of pandemic is not an easy task otherwise the world would not be under lockdown. Infodemic must dealt with carefully in order to fight with the pandemic appropriately.¹³ Pakistan is facing third wave of this pandemic that seems to be more severe; so it is crucial to eliminate the myths, follow standard precautionary measures and treatment.

A large sample size is the strength of study however study design is descriptive; in-depth research is required for further evaluation.

Conclusion

A considerable number of study participants have myths about COVID-19 pandemic. Level of COVID-19 related myths, and beliefs has significant association with age, and education status. Social media is identified as a major source of such misinformation.

References

1. Magoulick M. What is Myth? 2015. Available at: <https://faculty.gcsu.edu/custom-website/marymagoulick/defmyth.htm>
2. Sahoo S, Padhy Sk, Ipsita J, Mehra A, Grover S. Letter to editor: Demystifying the myths about COVID-19 infection and its societal importance. *Asian Journal of Psychiatry*. 2020; 54:102244.
3. Noreen N, Dil S, Niazi SUK, Naveed I, Khan NU, Khan FK, et al. COVID-19 Pandemic & Pakistan; Limitations and gaps. *Global Biosecurity*. 2020; 1(4): DOI: <http://doi.org/10.31646/gbio.63>.
4. Hickok K, Husband and wife poison themselves trying to self-medicate with chloroquine. *livescience.com*. 24th March 2020. Available from: <https://www.livescience.com/coronavirus-chloroquin-selfmedicatio-kills-mam.html>
5. Haghdoost Y. Alcohol poisoning Kills 100 Iranian Seeking Virus Protection. *Bloomberg.com*. 18th March 2020. Available at: <https://www.bloomberg.com/news/articles/2020-03-18/alcohol-poisoning-kills-100-iraniansseeking-virus-protection>.
6. World Health Organization. Myth busters. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-bustersKhan>
7. COVID-19 Health Advisory platform by MINISTRY OF NATIONAL HEALTH SERVICES REGULATIONS & coordination. COVID-19 Situation. Updated 8th July 2020. Available at: <https://covid.gov.pk/>
8. Sohrabi C, Alsafi Z, O'Neill N, Khan M, Kerwan A, Al-Jabir A, et al. World Health Organization declares global emergency: A review of the 2019 novel coronavirus(COVID-19). *Int. J. Surg*. 2020; 76:71-6.
9. Kebede Y, Birhanu Z, Fufa D, Yitayih Y, Abafita J, Belay A, Jote A, et al. Myths, beliefs, and perceptions about COVID-19 in Ethiopia: A need to address information gaps and enable combating efforts. *PLoS one*. 2020; 15 (11):e0243024.
10. Rathore FA, Farooq F. Information overload and Infodemic in the COVID-19 Pandemic. *J.PMA*. 2020; 70 (5):162-5.
11. Ali SA, Baloch M, Ahmed N, Ali AA, Iqbal A. The outbreak of Coronavirus Disease 2019(COVID-19)-An emerging global health threat. *J infect public health*. 2020. 13:644-46.
12. COVID-19 Myths: Separating true from false. Available at: https://www.aku.edu/news/Pages/News_Details.aspx?nid=NEWS-002129
13. Zarocostas J. How to fight an infodemic. *The Lancet*. 2020. 395(10225):676.