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Covid-19 pandemic changes the attitude of people and culture toward using face masks positively

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ABSTRACT

Self-protection is one of the most effective ways to contain the spread of pandemic Covid-19. Masks have a great effect of preventing airborne/droplet-borne Novel corona virus. This study aimed to examine changing belief and attitudes of Kurdish people of Iraq toward using masks during pandemic. The study was carried out in Sulaimani city through a detailed questionnaire asking participants different questions about using masks and their interactions with their daily work. The result of this study suggested that during the pandemic, the attitude of people completely changed from the social and psychological taboo of using masks for the majority users, 75.6%. During pandemic, majority of people (85.75%) believed that mask protect them from the infection except few (%14.3). In addition, the willingness to wear masks was not very welcomed by some. Most people wore masks, 73.6% due to compulsory rules of self-protection by health authorities and due to a highly worrisome pandemic. Some of the reasons were related to difficulties facing facial mask users such as breathing difficulties (67%), skin allergies (20.9%), wearing glasses and other allergies, 19%. In conclusion, it is clarified that now people can normally use masks without thinking about social taboos and cultural views of using masks negatively. The use of masks changed from non-user to the majority users during pandemic but there is still resistance to wearing masks. Therefore, compulsory rules to wear masks are necessary during pandemics or similar types of infection if emerged in the community.

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Introduction

Covid-19 (Corona virus infection) is a pandemic disease of the respiratory system (Phelan et al. 2020; Masetti et al. 2020) and it is considered as the most serious pandemic diseases after Spanish flue in 20th century. Covid-19 causes high morbidity, and it nearly disrupted every aspect of human daily life. Until March 2021, 122

million people were infected with Covid-19 and caused 2.7 million deaths (Liu et al. 2020). Covid-19 is highly contagious and it can transmit form human to human symptomatically and asymptotically and causes severe illness and mortality (Guan et al. 2020a). Its further interrupt lives worldwide and caused a lockdown of one-third of the global countries (Kaplan et al. 2020).

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Covid-19 Transmits through respiratory droplet/aerosols. Droplets generated by coughing of the patients contain viral particles, transmitted from one person to another by inhalation. Since it is understood that Covid-19 transmits through respiratory droplets, it is important to protect persons from infection by using a mask (Chu et al. 2020a; Zhang et al. 2020).

There are many non-pharmaceutical interventions to stop the transmission of Covid-19 which spread through the respiratory route. One of the ways is by reducing contacts between people (Chu et al. 2020b; Benzell et al. 2020). The second effective method is self-protection. The self-protection method includes use of a mask, which is considered a very useful method to protect individuals from Covid-19 (contagious respiratory diseases) (Spitzer 2020; Tucho and Kumsa 2021). It creates a physical barrier to protect the nose and mouth of individuals from respiratory/salivary droplets of the patients (Tang et al. 2009; Guan et al. 2020b), therefore, the transmission of virus is prevented from an infected person shedding large amounts of the virus into environments. Hence, preventing the disease leading to high morbidity (He et al. 2020; Gandhi et al. 2020; Gao et al. 2021).

Masks are used by some nations, and it is normal to use among many cultures and people of some countries against respiratory diseases and dusty and polluted environments. East Asia is one of the countries that use masks consciously till present and they used widely in an early response to protect from Covid-19 pandemic (Cowling et al. 2020).

On the other hand, using a mask in most communities was out of favour, but when the Covid-19 outbreak started, adaptation to using a mask rises very widely (Tucho and Kumsa 2021). Forced mask use rules by public authorities and people's attention to protect themselves from Covid-19, changes the attitude of people to use a mask (Chua et al. 2020). This change is radical because a mask was not used frequently by different cultures and communities, but now it is very recommended especially during a pandemic (Spitzer 2020; Tucho and Kumsa 2021).

In Kurdish culture in Iraq, the mask was used only by people who are infected with life-threatening diseases such as cancer and chronic diseases such as Hepatitis virus infection. In these immunocompromised patients, mask usage was necessary and the health authorities have recommended to them to use masks. On the other hand, casual people have never used masks because they were not familiar to it. Therefore, they avoid using masks, but the situation and thinking of people was changed when the pandemic reached the country. Therefore, this study was designed to investigate how

people's attitude and thinking has been changed regarding using masks in public. In addition, it is important to understand how people believe that the mask can protect them from Covid-19 infection through a detailed questionnaire.

Materials and Methods

Study design and location

The participants (406) of this research were in Sulaimani city at Kurdistan Region, Iraq from December 2020 to February 2021. This quantitative survey was done after two months of lockdown. The gender distribution between females and males was 65% and 35%, respectively. The ages of participants were: (10-30):316, (31-50): 63, (51-70):25, (71-90):2. The education level and occupation of the participant were considered to affect their use of a mask.

In this study, we used an analytic cross-sectional study design that includes the methods of (Google form, SPSS) through a detailed questionnaire. The form consisted of fifteen easy and short answer questions that most of them were answered in (yes, No, Maybe) so that it was easy and non-time-consuming for the participant filling the form. Not all the questions were obligated to be answered if the participants did not have the willingness to answer.

Data were analysed using a statistical package of social sciences (SPSS) version 25 and questionnaire online Google form. After data entry, data transformation and exploratory data analysis were done by using an online link form. The offline forms (forms from illiterate people) were entered into the program manually by the researchers so that they can be automatically analysed statically.

Results

Distribution of participant by their belief in coronavirus (covid-19) and infection of coronavirus

In this survey, the participants were asked if they believe in coronavirus and Covid-19 disease or not, answering with yes or no, inside Kurdistan region Iraq. The participants who answered with yes (believe in coronavirus) were 393 participants (96.8%), the participants who answered with no (do not believe in coronavirus) were 13 participants (3.2%).

The result showed more than half of the participants were not infected with Covid-19 until the time of the study, 242 (59.6%), while 164 (40.4%) participants were infected.

Distribution of participants by their belief wearing in masks

Participants were asked if they believe in wearing masks during the coronavirus pandemic to protect themselves. 348 participants answered yes they believe in wearing masks (% 85.7) because masks are the most important personal protective wear against coronavirus to, prevent getting infected with the virus and spreading the virus to non-infected people. Negatively, 58 participants answered no they don't believe in wearing masks (%14.3).

Wearing masks in public places

To know if being in large crowds and gatherings affects the participant's decision in wearing masks or not, we asked people whether they wear mask in crowds. Participants were asked if they wear masks in public places such as (malls, working places, parks, etc...). 307 participants answered with yes, they regularly wear masks in public places (%75.6) and 99 participants answered with no they don't wear masks in public places (%24.4).

Responses to mandatory rules of wearing masks

Participants were asked if it was mandatory for them to wear masks on their workplace, school, and college campus. 299 participants answered that it was mandatory for them to wear masks (%73.6).

Distribution of participants by the type of masks they used against Covid-19

Four types of mask choices were given to the participants to choose from the choices were (surgical m, N95, cosmetic masks, and hand-made masks). 356 of the participants used surgical masks (%87.7), 19 of the participants used N95 (%4.67), 9 of the participants used cosmetic masks (%2.21), 22 of the participants used hand-made masks (%5.4) (Figure 1).

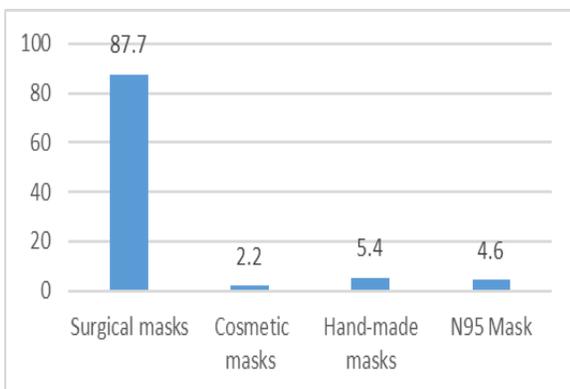


Fig 1. The rate of participant's opinions and believe on which type of masks is the most effective against the coronavirus.

The rate of people who have difficulties of wearing masks

Some people have problem and difficulties when they use masks such as allergies, therefore, we tried to analyse the rate of people who have problems with masks. For difficulties of wearing masks, the participants were given four choices which they could choose more than one choice from the choices were (breathing problems, dermatology problems, wearing glasses, and other problems). 272 participants chose breathing problems (%67), 85 participants chose dermatology problems (20.9), 77 participants chose wearing glasses (%19) and 75 participants chose other problems (%18.5) (Figure 2).

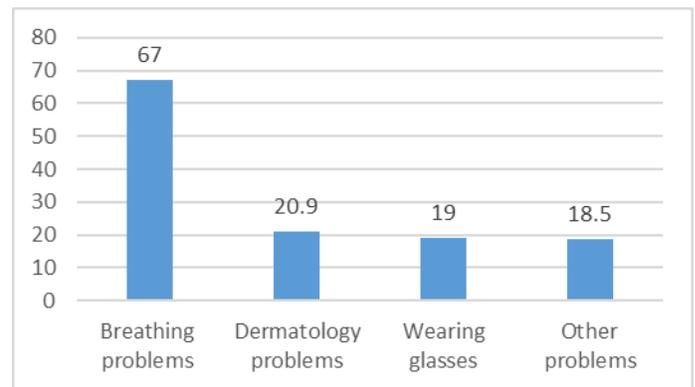


Fig 2. The rate of people percentage who have difficulties in wearing face masks.

Discussion

The Covid-19 infection changed the life attitude of global people to protect themselves and mostly due to worrisome of catching the disease. People during the pandemic has adapted with a new way of living including wearing face masks (Chua et al. 2020). The wearing mask demand was accelerated during pandemic due to self-protection and compulsory rules of wearing masks by health authorities.

Previously local people of the study area were not adapted to use masks except very few people who were using masks who had chronic and serious diseases such as cancer. Therefore, people had psychological taboo of using masks and they did not have willing to wear masks to avoid attracting people's attention. The aim of this study was to evaluate the attitude of local Kurdish people of Iraq toward using masks, health compliance and the psychological responses to Covid-19.

The result of this study showed that the attitude of local people was completely changed toward using face-masks. During pandemic most of people were wearing masks without any restriction. The importance of wearing masks by individuals was to self-protection

from airborne/droplet borne infection, Covid-19. The data of this study suggests that most of people believe in masks protect them from Covid-19, 85.7%. Therefore, they all experienced using masks. However, few people (14.3%) yet didn't believe that facial masks can protect them the pandemic so they don't wear masks. This study is consistent with a study in UK where most of people believe in that mask protect them from Covid-19 in spite of the difficulties to use by some of them (Hanna et al. 2022).

Until the time of the study, 59.6% of participants was infected with Covid-19, but still 3.2% of participants did not believe that Corona virus infection and pandemic is true and they said Covid-19 does not exist. This is a negative attitude by rare people because they may not follow the rules of protection and they may spread the disease among the community. This may cause spreading the disease faster in community because they are also not ready to take vaccines. This phenomenon was seen in different countries, and it is clarified that they may make threat to spread the disease of Covid-19 to their own and even global people (Ullah et al. 2021; Hebel-Sela et al. 2023). Fortunately, most of people believe that Covid-19 is exist so they protect themselves and others. In which, 75.6% were ready to wear masks in public places, but the remaining did not wear masks if it is not compulsory in entry. This may make a potential risk of covid-19 transmission if the compulsory rule of wearing masks is ignored.

One of the obstacles facing authorities to control and contain Covid-19 infection was resistance of people to wear masks. Participants were asked if it was mandatory for them to wear masks on their workplace, school, and college campus. 299 participants answered that it was mandatory for them to wear masks 73.6%. That mean most of people are not willing to wear masks even to protect themselves but they are forced to use it in public places. This is consistent with the previous study that they believe in mask protect them from the disease but they still resist to use it if it is not compulsory (Hanna et al. 2022). This threatens the spread of infection if the authorities did not obligate mask-wearing.

Among participants most of people have problems and difficulties of using masks such as allergies and breathing problems. The breathing problems was seen among 67% of participants and followed by allergy issue and dermatological problems by users at the rate of 20.9%. Masks is not easy to use by those people who wear eye glasses. 19% of participants said that eye glasses make difficulties to them to wear masks. It is revealed from this study that masks are not comfortable to use by some people and they may stop using it

whenever threat of the pandemic ended or become less. There are abundant of researches agree with our study that some people have difficulties of using masks and it affect their daily works such as talking, difficulty of breathing and so on (Giovanelli et al. 2021; Miller et al. 2021; Hussain et al. 2022)

Different people have different attitude to use the types of masks depending on the belief which one has the best effect of protection. This study showed that the highest rate of people chooses surgical mask to wear against Covid-19, 87.7% followed by hand made masks, N95 masks, and cosmetic masks (Figure 1). The use of surgical mask by majority may be related to the cheapest price of that mask in addition to its protection ability. This result is consistent with different studies in different countries that surgical mask has the most popularity among people. The result agrees with the research study in Iran and Thailand that most of people prefer using surgical masks (Techasatian et al. 2020; Rahimi et al. 2021)

The use of mask attitude changed by local people from psychological taboo to majority users due to the pandemic. Surgical mask is the popular type of mask using by people to protect themselves from airborne/droplet borne viruses. In addition of worrisome of catching infection, some people don't yet believe facial masks are beneficial and most of people are not willing to wear masks due to different reasons if it is not very necessary or if it is not compulsory. Therefore, during pandemic of Covid-19 or other possible infections, authorities should step forward to force the rules of quarantine and compulsory individual protection to contain the diseases in addition to health education.

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Conflict of interest

The authors declare that they have no conflict of interest. All authors have approved the manuscript for submission.

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