### Evaluate the Impact of the Social and Psychological Service on Infectious Diseases Patient in Makkah Al-Mokarramah, Saudi Arabia 2022

#### Alzahrani Khaled Daifallah<sup>1</sup>, Wael Mousa AL-Sobhi<sup>2</sup>, Basil Embark Albishri<sup>2</sup>, Khaleel abdul kadir Qutub<sup>3</sup>, Nawaf Ghazi Alsulami<sup>2</sup>, Fahad Ali Abdullah<sup>2</sup>, Rehab Hemidan Hamed alloqmani<sup>4</sup>, Mohammed Ateeq Eid ALsubhi<sup>5</sup>, Ahmed Emera Salem Alsobhi<sup>6</sup>, Othman Ahmad Alaseiri<sup>7</sup>, Alzahrani Amro Saad<sup>8</sup>

<sup>1</sup>General Surgery Consultant, Ministry of Health, Hera General Hospital <sup>2</sup>Psychologist, Hira General Hospital, Makkah, Saudi Arabia.

<sup>3</sup>Psychologist, Hospital King Abdul Aziz, Makkah, Saudi Arabia.

<sup>4</sup>Nursing specialist, NICU-head nurse, Hera General hospital, Makkah, Saudi Arabia.

<sup>5</sup>Nursing Technician, The executive department of infectious disease control, Makkah, Saudi Arabia.

<sup>6</sup>Social worker, Hira General Hospital, Makkah, Saudi Arabia.
<sup>7</sup>General Dentist, Al-Eskan Primary Healthcare Center, Makkah, Saudi Arabia.
<sup>8</sup>General Surgery Resident, Ministry of Health, Hera General Hospital, Makkah, Saudi Arabia.

#### Abstract:

#### Background

Infectious diseases remain one of the biggest threats to the health and well-being of the human race. Spread of infectious diseases has rapidly, for example according to the statistics released by the World Health Organization, there have been 16,523,815 confirmed cases of COVID-19 infection in 216 countries, with at least 655,112 deaths as of July 29, 2020. The pandemic resulted in not only the risk of death from the viral infection but also Social and psychological service consequences among people, particularly because of the long-term nature of the Infectious diseases, which is still developing, also social and psychological wellbeing factors affecting the psychological wellbeing. Previous research has revealed a profound and wide range of social and psychological impacts of infectious outbreaks on survivors, family members of infected patients, social and psychological consequences of infectious diseases have been reported to include depressed mood, anxiety, poor sleep, and increased fear and stress levels, with posttraumatic stress disorder (PTSD) and depressive disorders being the most prevalent long-term social and psychological conditions.

**Aim of the study**: To evaluate the impact of the Social and psychological service on Infectious diseases patient in primary health care center in Makkah, 2022.

**Method:** A cross-sectional, was conducted in December 2022 among Infectious diseases patient in primary health care center in Makkah. impact of the Social and psychological service on Infectious diseases patient analyses were used to Evaluate the impact of the Social and psychological service on Infectious diseases patient, also a self-administered questionnaire was designed and has been send to the study participants. Our total participants were (300).

**Results:** shows that most of the participants were (34.0%) in the age group 30-40 years, gender the majority of them were female (52.0%), education the majority of participant are Bachelor's degree were (34.0%), Number of children the majority of participant Two children were (46.0%), marital stats most of participants married were(71.0%)while. **Conclusion:** To minimize the impact of future the Social and psychological service on Infectious diseases patient, must by infectious diseases, healthcare workers should be prepared for the potential Social and psychological impact; employers should encourage a supportive environment in the workplace and ensure that support is in place for those most at risk, for example those with the most patient contact.

**Keywords:** Evaluate, impact, Social, psychological, service, Infectious, patient, Makkah, Saudi Arabia.

#### Introduction

Social psychology uses scientific methods to understand how social influences impact human behavior. It seeks to explain how feelings, behavior, and thoughts are influenced by the actual, imagined or implied presence of other people.(1) A social psychologist looks at group behavior, social perception, non-verbal behavior, conformity, aggression, prejudice, and leadership.(2) Social perception and social interaction are seen as key to understanding social behavior. Other branches include military, consumer, educational, cross-cultural, and environmental psychology.(3) The number of branches continues to grow, it seeks to explain how feelings, behavior, and thoughts are influenced by the actual, imagined or implied presence of other people.(4) A social psychologist looks at group behavior, social perception, non-verbal behavior, conformity, aggression, prejudice, and leadership. Infectious diseases are illnesses caused by germs (such as bacteria, viruses, and fungi) that enter the body, multiply, and can cause an infection. Some infectious diseases are contagious (or communicable), that is, spread from one person to another. (5) Standard definitions of social psychology, such as "the study of the way in which people's thoughts, feelings, and behaviors are influenced by the real or imagined presence of other people"(6) fail to capture much of what social psychologists actually do and do not capture the basic theoretical foundations of the field. (7) During any outbreak of an infectious disease, the patients Social and psychological reactions play a critical role in shaping both spread of the disease and the occurrence of emotional distress and Social and psychological disorder during and after the outbreak.(8) Despite this fact, sufficient resources are typically not provided to manage or attenuate pandemics' effects on mental health and wellbeing.(9) while this might be understandable in the acute phase of an outbreak, when health systems prioritize testing, reducing transmission and critical patient care, Social and psychological needs should not be overlooked during any phase of pandemic management. (10) Infectious diseases remain one of the biggest threats to the health and well-being of the human race. (11). Compared with the general patients, patients are facing tremendous pressure from infectious disease, especially those who might be in contact with suspected or confirmed cases, due to the high risk of infection, inadequate protection, loss of control, lack of experience in managing the disease, overwork, negative feedback from patients, perceived stigma, significant lifestyle changes, quarantine and less family support.(12) These factors increase the incidence of psychological problems among healthcare workers, such as fear, anxiety, depression and

insomnia, which can negatively affect work efficiency and long-term well-being. (13) During the epidemic, 29%–35% of hospital workers suffered from a high degree of Social and psychological. Even several years later, 10% of healthcare workers still reported symptoms of post-traumatic stress.(14) Individuals who experienced quarantine or Social and psychological for patients with infection were two to three times more likely to have posttraumatic stress symptoms.(15) Although a few studies have investigated the prevalence of psychological problems among healthcare workers pandemic,(16) no study has investigated the distribution of Social and psychological problems among different groups of healthcare workers. (17). According to the epidemiological assessment infectious diseases through the reporting the evaluation of disease prevention and control programs, in the assurance of appropriate medical therapy, and in the detection of common communicable Disease According to the World Health Organization (WHO), the main outbreaks (18). communicable diseases (CDs) the reportable communicable infectious diseases influenza, measles, and salmonella and other food borne illnesses.(19) Social and psychological service These diseases share four behavioral risk factors: tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol The human, social and economic consequences of communicable diseases are felt by all countries but are particularly devastating in poor and vulnerable populations.(20)

#### Literature review:

Slonim, et al (2018) reported that study, a significant proportion of participants experienced anxiety and more than 30% reported borderline depression symptoms. In previous studies, Social and psychological service emotional stress and difficult life experiences were significantly associated with decreased quality of life in Infectious diseases patients. (21)

Furthermore, such stressors may affect the course of the disease and result in a relapse.(22) Indeed, the Social and psychological impact of an infectious epidemic on inflammatory bowel disease patients has not been widely studied. Sources of distress may include feeling vulnerable to infections or worries about loss of disease control and subsequent flaring attacks. (23)

Similarly, while one study found that nurses classified as 'high risk' (in this study, defined as working in wards caring solely for Infectious diseases patients) and 'moderate risk' reported greater stress than those with no Infectious diseases contact at all, it was those classified 'moderate risk' who experienced greater stress and reported feeling less able to cope (24). This could, again, be due to confidence being bolstered and need to Social and psychological service having successfully avoided infection following high exposure to Infectious diseases patients in the high risk group, or it may be due to the 'moderate risk' group having greater role uncertainties, less availability of personal protective equipment, or being less psychologically prepared than those who knew they would be working in high-risk environments.(25)

Moghanibashi, (2020) . reported study conducted during the pandemic in Iran where it reported the level of severe anxiety to be 19.1% and another study in Spain where it reported the level depression, stress, anxiety to be 9.9%, 7.8%, 11.6% respectively (27) . Contrary to the findings of our study, a recently published study in china where 53.8% reported their

psychological impact of the outbreak moderate or severe, 16.5% and 28% reported depressive and anxiety symptoms ranged from moderate to severe, while 8.1% reported moderate to severe stress levels.(28)

However, when school closures take longer, students ' learning and social relationships are negatively affected. Schools provide face-to-face education. But because face-to-face education cannot take place because of the epidemic, the country's education administrators want students to be accessible through distance or online education. The studies published recently and during MERS outbreak in Saudi Arabia and studies conducted during the current COVID-19 pandemic in Singapore and India (29). In addition to that, we found that females and students had higher scores across all DASS subscales, as was consistent with a previous study done in China those participants had a higher score in the stress and anxiety and depression subscale, (30)

#### Rationale

The Social and psychological service on Infectious diseases patient the most affected people by the Infectious diseases are those who suffer from this pandemic. In the studies examining the Social psychological effects of Infectious diseases patient, as seen in other epidemics that most patients face negative Social psychological conditions such as posttraumatic stress disorder, anxiety, depression, loneliness, distress, fear, anger and fear of being tagged the causal relationships should be interpreted with caution. Although a relatively large number of populations participated in this study, the limited number of participants in the Makkah of Saudi Arabia areas might have caused the findings to be underpowered. More studies are needed to explore the longitudinal trajectories of anxiety, depression and insomnia symptoms in population during the Infectious diseases patient. Moreover, the number of population who participated in this survey was limited, which may limit the generalizability of findings. The results were based on self-reported questionnaires that investigated Social and psychological problems, which might be different from clinical diagnostic interviews.

#### Aim of the Study

To evaluate the impact of the Social and psychological service on Infectious diseases patient in primary health care center in Makkah, 2022

#### **Objectives**:

To evaluate the impact of the Social and psychological service on Infectious diseases patient in primary health care center in Makkah, 2022

#### **Subjects And Methods :**

#### Study design:

This cross-sectional survey has been conducted among Infectious diseases patient in the city of Makkah. The study carried for 2 month December 2022, from the 1st till 30 the January y 2022, among Infectious diseases patient attend to the PHC centers in Makkah, participants aged between 20 and 50 years old, the study investigators will share the survey link in social media and their primary contacts

#### Study setting / study area:

A study participant has been recruited on Makkah Al-mukarramh including PHC centers under supervision of Directorate of Health Affairs of Makkah in Saudi Arabia. The study has been carried out in the city of Makkah, Makkah is the holiest spot on Earth. It is the birthplace of the Prophet Mohammad and the principal place of the pilgrims to perform Umrah and Hajj. The most important cities in Saudi Arabia . It is the holy city for all Muslims, and is located in the western region. It is located in the western area in Kingdom of Saudi Arabia .

#### **Study population:**

The study has been conducted among Infectious diseases patient in the PHC centers in the Makkah Al-Mokarramah at Saudi Arabia. Including Al-Ka'akya, Al-Adl, Al-Zahir primary healthcare centers.

#### Selection criteria: Inclusion Criteria :

• All Saudi Infectious diseases patient who are more than 20 years of age. A study participant has been recruited from Makkah Al-Mukarramah .

#### Exclusion criteria:

- Saudi younger than 20 years
- Participants who did not consent to participate in the study, and/or did not answer the questions of the study.
- Patients with language barriers

#### **Study Sample:**

The sample size has been calculated by applying Raosoft sample size calculator based on (The margin of error: 5%, Confidence level: 95%, and the response distribution was considered to be 20%) accordingly the Sample size is 300 of Infectious diseases patient Saudi patient attending in PHC and adding 10 more to decrease margin of error. After adding 5% oversampling, the minimum calculated sample has been 300. Computer generated simple random sampling technique was used to select the study participants.

#### Sampling technique:

Systematic random sampling technique is adopted. By using systematic sampling random as dividing the total Infectious diseases patient by the required sample size; (300)

#### **Data collection methods:**

The self-administered questionnaire is designed based on previous studies and frameworks to assess of the evaluate the impact of the Social and psychological service on Infectious diseases patient in primary health care center in Makkah Saudi Arabia.

The questionnaire was developed in English and was then translated into Arabic. The questions were first pre-tested and were revised and finalized after it was pilot tested. Before completing the survey, participants were required to indicate their consent using a forced

response question followed by the survey questionnaires. The survey is estimated to take 10 min to complete .

To collect the information, a set of questions were constructed and developed . The questionnaire consisted of two main sections; the first section focuses on Socio demographic and background information such as age, education level, outcome and gender of the participants impact of the Social and psychological service on Infectious diseases patient in primary health care center participants in Makkah

#### A Pilot study

Was carried out at the questions were first pre-tested and were revised and finalized after it was pilot tested. Before completing the survey, participants were required to indicate their consent using a forced response question followed by the survey questionnaires. This study has been conducted and all suggestions taken into consideration.

#### Data analysis

The Statistical Package for Social Sciences (SPSS) software version 24.0 has been used for data entry and analysis. Descriptive statistics (e.g., number, percentage) and analytic statistics using test for the association and the difference between two categorical variables were applied. A p-value  $\leq 0.05$  has been considered statistically significant.

#### Ethical consideration :

- Permission from family medicine program was obtained .
- Permission from the regional Research and Ethical Committee was be given to conduct our study.
- All the subjects has been participate voluntarily in the study .
- Privacy of information and confidentiality has been maintained .
- Full explanation about the study and its purpose was carried out to obtain their participation.

#### Budget: Self-funded

#### **Results** :

#### Table 1. Distribution of the demographic characteristics of the participants (n=300)

	Ν	%				
Age	·	·				
20-30	57	19				
30-40	102	34				
40-50	66	22				
>50	75	25				
Sex						
Male	144	48				
Female	156	52				
Education						
Secondary school	48	16				

Diploma	87	29				
Bachelor's degree	102	34				
University	63	21				
Number of children						
One child	102	34				
Two children	138	46				
Three to five children	45	15				
More than five	15	5				
Nationality	·					
Saudi	228	76				
Non Saudi	72	24				
Marital status						
Married	213	71				
Divorced	39	13				
Widow	48	16				
Family income						
Low	144	48				
Middle	72	24				
High	84	28				
Type of work						
Office place	231	77				
Working online from home	69	23				

Table 1 shows that most of the participants were (34.0%) in the age group 30-40 years, followed by age >50 were (25.0%), regarding gender the majority of them were female (52.0%) while male (48.0%), regarding level of education the majority of participant are Bachelor's degree were (34.0%), followed by Diploma education were (29.0%), regarding the Number of children the majority of participant Two children were (46.0%) while One child were(34.0%), also regarding the nationality most of participants Saudi were(76.0%) while non-Saudi were (24.0%), regarding the marital stats most of participants married were(71.0%) while widow were(16.0%), regarding Family income the majority of participant are low were(48.0%) followed by high were (28.0%).

 Table 2 . Distribution of the Social Support and Activity service on Infectious diseases

 participants patient.

	Yes		No		<b>Chi-square</b>	
	No	%	No	%	<b>X</b> <sup>2</sup>	P-value
Memory and behavior problems	105	35	195	65	27.000	<0.001*
Self-care impairment	57	19	243	81	115.320	< 0.001*
Accompany patient to appointments in the	201	67	99	33	34.680	<0.001*

community						
Confer with the patient other						
providers or speak with on	198	66	102	34	30.720	<0.001*
patient						
family or support system	177	59	123	41	9.720	0.002*
(with the patient consent)	1//		125	11	9.120	0.002
Refer patient to other						
providers (with patient	213	71	87	29	52.920	< 0.001*
consent)						
Provide patient to outreach						
to client who is lost to	189	63	111	37	20.280	<0.001*
follow-up						
Visit the patient in treatment	237	79	63	21	100.920	< 0.001*
facilities/hospitals		17	05	21	100.920	
Document all on patient	231	77	69	23	87.480	< 0.001*
contact in patient Database	201	,,			071100	(0.001
provide prevention	93	31	207	69	43.320	< 0.001*
education session on patient	70	01	207	0,7	101020	(0.001
Monitor status of on patient	228	76	72	24	81,120	< 0.001*
case Visit on patient		, 0	, 2	2.	011120	(0.001
Meet the patient upon when	192	64	108	36	23,520	< 0.001*
need	172	0.	100	20	201020	(0.001
Develop care plan to patient	225	75	75	25	75.000	<0.001*
Ongoing monitoring of care	231	77	69	23	87,480	< 0.001*
plan	231	, ,	07		07.100	
Self-care	96	32	204	68	38.880	<0.001*
self-efficacy	225	75	75	25	75.000	<0.001*
Self-care impairment	111	37	189	63	20.280	< 0.001*

Table 2 shows Distribution of the Social Support and Activity service on Infectious diseases participants patient, regarding Memory and behavior problems most of participants answer No were (65.0%), followed by Yes were (19.0%) while a significant correlation were p-value =0.001 and  $X^2$  27.000. Regarding Self-care impairment most of the participants answer No were (81.0%) while Yes were (19.0%), while a significant correlation were p-value =0.001 and  $X^2$  115.320. Regarding Accompany patient to appointments in the community most of the participants answer Yes were (67.0%) while No were (33.0%), while a significant correlation were p-value =0.001 and  $X^2$  115.320. Regarding Accompany patient to appointments in the community most of the participants answer Yes were (67.0%) while No were (33.0%), while a significant correlation were p-value =0.001 and  $X^2$  34.680. Regarding Confer with the patient other providers or speak with on patient most of the participants answer Yes were (66.0%) while No were (34.0%), while a significant correlation were p-value =0.001 and  $X^2$  30.720. Regarding family or support system (with the patient consent) most of the participants answer Yes were (59.0%) while No were (41.0%), while a significant correlation were p-value =0.002 and  $X^2$  9.720. Regarding Refer patient to other providers (with patient

consent) most of the participants answer Yes were (71.0%) while No were (29.0%), while a significant correlation were p-value =0.001 and  $X^2$  52.920. Regarding Provide patient to outreach to client who is lost to follow-up most of the participants answer Yes were (63.0%) while No were (37.0%), while a significant correlation were p-value =0.001 and  $X^2$  20.280. Regarding Visit the patient in treatment facilities/hospitals most of the participants answer Yes were (79.0%) while No were (21.0%), while a significant correlation were p-value =0.001 and  $X^2$  100.920. Regarding Document all on patient contact in patient Database most of the participants answer Yes were (77.0%) while No were (23.0%), while a significant correlation were p-value =0.001 and  $X^2$  87.480. Regarding provide prevention education session on patient most of the participants answer No were (69.0%) while Yes were (31.0%), while a significant correlation were p-value =0.001 and  $X^2 43.320$ . Regarding Monitor status of on patient case Visit on patient most of the participants answer Yes were (76.0%) while No were (24.0%), while a significant correlation were p-value =0.001 and  $X^2$  81.120. Regarding Meet the patient upon when need most of the participants answer Yes were (64.0%) while No were (36.0%), while a significant correlation were p-value =0.001 and  $X^2$ 23.520. Regarding Develop care plan to patient most of the participants answer Yes were (75.0%) while No were (25.0%), while a significant correlation were p-value =0.001 and  $X^2$ 75.000. Regarding Ongoing monitoring of care plan most of the participants answer Yes were (77.0%) while No were (23.0%), while a significant correlation were p-value =0.001 and  $X^2$ 87.480. Regarding Self-care most of the participants answer No were (68.0%) while Yes were (32.0%), while a significant correlation were p-value =0.001 and  $X^2$  38.880. Regarding self-efficacy most of the participants answer Yes were (75.0%) while No were (25.0%), while a significant correlation were p-value =0.001 and  $X^2$  75.000. Regarding Self-care impairment most of the participants answer No were (63.0%) while Yes were (37.0%), while a significant correlation were p-value =0.001 and X<sup>2</sup> 20.280.

		DASS depressionN%		DASS anxiety		DASS stress	
				Ν	%	Ν	%
Normal		96	32	69	23	60	20
Mild		36	12	102	34	57	19
Moderate		78	26	66	22	102	34
Severe		36	12	36	12	51	17
Extremely severe		54	18	27	9	30	10
Chi-square	<b>X</b> <sup>2</sup>	46.8		59.1		45.9	
	P-value	< 0.001*		< 0.001*		< 0.001*	

 Table 3 . Distribution of the psychological and Activity service on Infectious diseases participants patient.

Table 3 shows the psychological and Activity service on Infectious diseases participants' patient.

Regarding DASS depression most of participants in the normal depression were (32.0%), followed by Moderate depression were (26.0%) while Extremely Severe were (18.0%), while is a significant correlation were p-value =0.001 and X<sup>2</sup> 46.8. Regarding DASS anxiety most of the participants Mild anxiety were (34.0%) while Normal anxiety were (23.0%), followed by Moderate anxiety were (22.0%), while a significant correlation were p-value =0.001 and X<sup>2</sup> 59.1

Regarding DASS stress most of the participants Moderate stress were (34.0%) while Normal stress were (20.0%), followed by mild stress were (19.0%), while a significant correlation were p-value =0.001 and X<sup>2</sup> 45.9.

## Figure 1 Distribution of the psychological and Activity service on Infectious diseases participants' patient





PTSD					
		Ν	%		
	Yes	129	43		
	No	171	57		
<b>Total</b> 300			100		
Chi-square	X <sup>2</sup>	5.603			
	<b>P-value</b>	0.0179			

Regarding PTSD most of the participants No were (57.0%) while Yes were (43.0%), but total (100.0%). while no significant correlation were p-value =0.0179 and X2 5.603

# Figure 2 Distribution of the trauma-related distress symptoms (PTSD) on Infectious diseases participants' patient



#### Discussion

The purpose of this study was to evaluate the impact of the Social and psychological service on Infectious diseases patient in primary health care center in Makkah, 2022. The present results show that Social and psychological are prevalent in Infectious diseases patient. Moreover, different the patient exhibited a distinct prevalence of anxiety, depression, insomnia and overall Social and psychological problems, attention to neutral or negative information about the infectious, receiving negative feedback from population, and uncertainty or unwillingness to join front-line work and so on. The findings help provide information for psychological interventions among population in other countries and religions.

in our study shows that most of the participants were (34.0%) in the age group 30-40 years, followed by age >50 were (25.0%), regarding gender the majority of them were female (52.0%) while male (48.0%), regarding level of education the majority of participant are Bachelor's degree were (34.0%), followed by Diploma education were (29.0%), regarding the Number of children the majority of participant Two children were (46.0%) while One child were(34.0%), also regarding the nationality most of participants Saudi were(76.0%) while non-Saudi were (24.0%), regarding the marital stats most of participants married were(71.0%) while widow were(16.0%), regarding Family income the majority of participant are low were(48.0%) followed by high were (28.0%).(See table 1)

The high prevalence of Social and psychological service problems that was found in this study is consistent with recent findings from two other Chinese research studies with

relatively. The of self-reported symptoms of anxiety, depression and insomnia in these two previous surveys was 44.7%, 50.7% and 36.1%32 and 44.6%, 50.4% and 34.0%,17 respectively. Another study confirmed the severe mental health conditions in healthcare workers and indicated that medical health workers reported more symptoms compared with non-medical health workers.(31) In addition, compared with the general population (eg, 34.43% of the general population experienced psychological distress), (29) healthcare workers have a much higher risk of psychological problems (eg, anxiety, depression and insomnia) during the epidemic.(26) This may be related to the higher risk of infection on account of being exposed to patients with Infectious diseases patient and tedious work involved in caring for them and reminds us of the importance of providing psychological support to healthcare workers during a pandemic.

Regarding DASS depression most of participants in the normal depression were (32.0%), followed by Moderate depression were (26.0%) while Extremely Severe were (18.0%), while is a significant correlation were p-value =0.001 and X2 46.8. Regarding DASS anxiety most of the participants Mild anxiety were (34.0%) while Normal anxiety were (23.0%), followed by Moderate anxiety were (22.0%), while a significant correlation were p-value =0.001 and X2 59.1 Regarding DASS stress most of the participants Moderate stress were (34.0%) while Normal stress were (20.0%), followed by mild stress were (19.0%), while a significant correlation were p-value =0.001 and X2 45.9. (See Table3)

However, few studies have investigated their psychological impact of the COVID-19 pandemic on population during pandemic, and further research is warranted to provide more evidence.(31) During the COVID-19 pandemic, many medical residents do not directly participate in the care of patients with COVID-19 (eg, many medical residents may only be on stand-by at home during the COVID-19 pandemic), and thus, they reported less anxiety, depression, insomnia and overall psychological problems.(32)

These findings indicate that based on the socio demographic, occupational and institutional disparities, different psychological interventions should be delivered to population during COVID-19. (22) However, few studies have investigated their of impact of the Social and psychological service on Infectious diseases patient in , and further research is warranted to provide more evidence.(31) During the Infectious diseases, many medical residents do not directly participate in the care of patients with Infectious diseases (eg, many medical residents may only be on stand-by at home during the COVID-19 pandemic), and thus, they reported less anxiety, (32) Regarding PTSD most of the participants No were (57.0%) while Yes were (43.0%), but total (100.0%). while no significant correlation were p-value =0.0179 and X2 5.603, depression, insomnia and overall psychological problems.(See table 4)

These findings indicate that based on the socio demographic, occupational and institutional disparities, different psychological interventions should be delivered to population during COVID-19. (22)

#### Conclusion

Infectious diseases patient that deeply affects all humanity. The affects patient Social and psychological because the spread of Infectious diseases it continues, sometime death rates increase day by day, life comes to a halt and its control time is Infectious diseases unpredictable. This effect will cause many problems in the short and long term. After the

Infectious diseases has been controlled over time, the Social and psychological effects on patient will be clearer. The patient Social and psychological problems caused by the Infectious Social and psychological to have global effects in the long term . In this context, some measures are required to minimize its negative Infectious diseases effects. In this part of the study, some recommendations have been made for children, young people, elderly people and healthcare staff in the Social and psychological struggle, Throughout the Infectious diseases patient in Saudi Arabia, the results showed that one-fourth of the general population experienced moderate to severe Social and psychological impact.

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