

الصحة النفسية والمرونة النفسية أثناء أزمة كوفيد - 19: دراسة على عموم السكان في المملكة العربية السعودية

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ملخص:

هدف الدراسة: نتيجة للانتشار السريع لكوفيد-19، زادت المخاوف الصحية بشكل كبير في جميع أنحاء العالم، وفُرضت إجراءات الحجر الصحي الصارمة والتباعد الاجتماعي لإحتواء انتشار الفيروس مما كان له أثر في صحة الناس النفسية. لذا سعت هذه الدراسة إلى تقييم الصحة النفسية للسكان في المملكة العربية السعودية ودراسة المرونة النفسية للأشخاص لمعرفة ما إذا كانت قادرة على التخفيف من الآثار السلبية للحجر الصحي على صحتهم النفسية. المنهجية: تم توزيع استمارة إلكترونية وجمع بيانات 884 بالغاً بعد قضاء شهراً كاملاً في الحجر الصحي. النتائج: أظهرت النتائج أن مستويات الصحة النفسية لمعظم أفراد العينة (88.1%) كانت ضعيفة، فيما تمتع الأفراد الأصغر سناً وغير المتزوجين والطلاب بصحة نفسية أفضل مقارنة بالمجموعات الأخرى. كما توجد علاقة ارتباطية موجبة (0.390) بين المرونة النفسية للفرد وصحته النفسية أثناء الحجر الصحي. الخلاصة: كان لوباء كوفيد 19- تأثير في الصحة النفسية لعموم سكان المملكة العربية السعودية وتناسبت درجة صحتهم النفسية طردياً مع مستوى المرونة لديهم.

المصطلحات الأساسية: كوفيد- 19 ، الصحة النفسية، الحجر الصحي، المرونة النفسية، المملكة العربية السعودية.

Mental Health and Psychological Resilience During COVID - 19 : A Study of the General Population in Saudi Arabia

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Abstract:

Objective: Due to the rapid spread of COVID-19, Health concerns increased dramatically across the world, and rigid quarantine measures and social distancing were imposed to contain the spread of the virus, which might have affected the people's mental health. Therefore, this study sought to evaluate the population's mental health in Saudi Arabia and examine whether a person's psychological resilience could mitigate the adverse impacts of quarantine on their mental health. **Methods:** An online survey was distributed, and data from a total of 884 adults were obtained after having spent one month under quarantine conditions. **Results:** The findings revealed that the mental health levels of most of the sample (88.1%) were poor. Individuals who were younger, not married and students had better mental health in comparison to other groups. A positive correlation (0.390) existed between an individual's psychological resilience and their mental health status during quarantine. **Conclusion:** The COVID-19 pandemic had an impact on the mental health of the general population of Saudi Arabia, and the degree of their mental health was directly proportional to their level of psychological resilience.

Keywords: COVID-19, Mental Health, Quarantine, Psychological Resilience, Saudi Arabia

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Introduction:

As a result of the rapid spread of Coronavirus (COVID-19) worldwide, the global community has become increasingly concerned about its impact on human health. By January 2020, the disease had been detected in 18 different countries (Sohrabi et al., 2020). Information on the Saudi Ministry of Health's website indicates that the first instance of a person testing positive for the virus occurred on 2 March 2020, while the first COVID-19 related death was reported on 24 March 2020. To date, there have been a total of 615,430 cases in Saudi Arabia from an overall population of 35,460,344 (MOH, 2022).

Because an effective method of treating the virus had not been discovered when it began to spread, different methods of controlling the virus outbreak were urgently required. Hence, rigid quarantine restrictions were imposed within the country. Schools and universities were suspended, and workplaces were temporarily closed. The imposition of previously unseen rigid quarantine restrictions within Saudi Arabia led to a significant number of people being isolated and this had impacted multiple areas of their lives.

The pandemic has not only led to anxiety about death or being infected, but also to psychological problems caused by the quarantine, such as being separated from family members or close friends, restrictions on freedoms, lack of certainty regarding the status of the disease, exasperation, financial concerns, feelings of loneliness and boredom, which can have devastating impacts on mental health leading to problems like depression, anxiety, and self-harm (Brooks et al., 2020). When outbreaks of a disease occurred in the past, people were extremely upset about quarantines that were imposed (Miles, 2015). Cases of suicide have also been documented (Barbisch, Koenig & Shih, 2015).

Numerous researchers have conducted cross-sectional studies around the world, and their findings have suggested that there has been an inc-

reased prevalence of the symptoms of psychological distress during the pandemic (Shahrour & Dardas, 2020; Yu et al., 2020). Several studies undertaken in Saudi Arabia reported that the COVID-19 pandemic had a significant impact on the mental health of healthcare providers (Alhurishi et al., 2021; Alqutub et al., 2021). One of the recent Arabic studies was a study conducted in the UAE which aimed to identify the prevalent psychological difficulties experienced by University Faculty, Staff, and Students and the coping strategies used during the COVID-19 lockdown. The results indicated that (%60.4) of students, (%57.4) of the faculty members, and (% 52.3) of the staff experienced mild psychiatric problems, with higher rates in females (%61.3) compared to males (%51.5). The level of worry during the COVID-19 lockdown for students, faculty members, and staff were %32.9, %33.7, %25 respectively. Significant differences were observed in coping strategies among participants (Almisry et al., 2021). In research undertaken by Lai et al., (2020), it was found that approximately 50% of healthcare professionals who had exposure to COVID-19 expressed that they had experienced anxiety and depression. Analogous outcomes were reported in previous studies that concentrated on health professions, including a research study on hospital employees who may have had exposure to SARS; that research identified that staff who were forced to quarantine had a considerably higher likelihood of reporting being exhausted, detached from other people, anxious, irritable, having difficulties sleeping, finding it hard to concentrate and performing less effectively in the workplace (Bai et al., 2004). Being required to quarantine was found to be a predictor of post-traumatic stress disorders among hospital staff even three years after the event (Wu et al., 2009). A different study concentrated on the mental health of students and found that 20% of students who were isolated in their homes in Wuhan reported being anxious and depressed (Xie et al., 2020).

The ability to adapt in the face of tragedy, trauma, adversity, difficulty, and persistent substantial life pressure is known as resilience (Newman, 2005). However, there is no single attribute or trait that defines resilience,

it is a multifaceted and not a unitary term. Rather resilience is linked to a variety of behaviours and actions (Luthar & Cicchetti, 2000). The term «resilience» is used in a variety of ways among psychologists. Werner (1995) pointed to three broad usages: good development despite high-risk status, sustained competence under stress, and trauma recovery. However, Luthar (2006) noted that the most prevalent definition of resilience in recent years has been: “positive adaptation despite adversity”.

The concept of resilience is not necessarily straightforward, which in turn affected what is known as resilience theory, which is a collective resilience model contributed by many researchers from different aspects. Therefore, it is a framework that keeps developing over the years rather than a set of determined principles. In the early days of resilience studies, researchers focused on discovering the personality traits responsible for the positive outcomes in individuals, over time they realized that it is the capacity of a dynamic process rather than static traits (Masten, 2014). In addition, individuals who showed resilience adaptation have been seen as invincible; over time, more recent studies showed that resilience was common as Masten (2001) called this the «Ordinary Magic» because it is the ordinary resource, not extraordinary quality, that protects us. Resilience is also not a fixed system; a person can adapt well in one area but struggle in another (Wright et al., 2013). Many resilience studies were conducted in different domains, such as resilience in the field of social work (Van Breda, 2018), resilience and its role in helping families and children deal with adversity (Masten, 2014), family resilience, and the positive adaptation of family units (Walsh, 2016), community resilience (Berkes & Ross, 2013), and organizational resilience (Vogus & Sutcliffe, 2007).

In this paper, we are focusing on resilience that has the potential to assist mitigating the anticipated adverse impacts of quarantine. It is regarded as being one of the mechanisms and factors that enables people

to stay healthy or recuperate rapidly when facing serious challenges in their lives (Rutten et al., 2013). Put differently, psychological resilience is described as the capacity to effectively react to extremely stressful, traumatic, or adverse events.

Additionally, psychological resilience can be considered as the ability of an individual to successfully adapt and rapidly recover when facing extreme difficulties in their life (Davydov et al., 2010). Therefore, resilience is an adaptive and dynamic process that promotes the ability to enhance or rapidly reacquire homeostasis in stressful environments. While the notion of resilience necessitates a process of sustainability by which mental health conditions are prevented after extreme distress, it also enables individuals to recover swiftly when suffering from a mental health disorder caused by difficulties.

The ongoing COVID-19 pandemic that is still spreading has caused a lot of stress to individuals and communities; anxiety and fear associated with the virus could lead to depression as well as intense emotions among children and adults. People will exhibit different reactions to stressful events (Berríos-Torres et al., 2017). The speed with which COVID-19 has spread globally has exacerbated the anxiety and fear related to the virus, which has subsequently caused people to feel intense emotions, irrespective of their age, gender, or race.

Past research studies have demonstrated that psychological resilience acts as a mediator between stress and mental health condition (Hao et al., 2015; Howell et al., 2020), and could prevent the negative impacts caused by stress (Poole et al., 2017).

Numerous researchers have identified a correlation between public crises and mental health (Cheng et al., 2004, Liu et al., 2020; Lowe et al., 2015; Zhu et al., 2012), while others have concentrated on assessing the impact of resilience on physical health, psychological wellbeing and life quality after a significant natural disaster or public event (Kukihara

et al., 2014; Lee et al., 2018; Li & Dai, 2017). (2011) Osofsky et al., determined that there was a negative correlation between resilience and both anxiety and depression in individuals who experienced the events of both Hurricane Katrina and the Deepwater Horizon oil leak. Although many studies, whether local or international, have been conducted to test the impact of the epidemic on mental health, they have varied in their methodologies and samples. Nevertheless, to the best of our knowledge, no previous study had investigated the association between the general population's mental health in Saudi Arabia during the COVID-19 pandemic and their psychological resilience level. Hence, the significance of this study stems from two aspects: the knowledge gap about the impact of a large-scale pandemic on the population's mental health especially during the acute phase to determine the extent of psychological intervention required to help them overcome these pressures as well as exploring factors that may help mitigating the impact of this crisis on mental health since this study focused on the role of psychological resilience in helping individuals to overcome crises. Accordingly, this study tries to answer the following questions: (1) Was there a psychological impact of COVID-19 on the general population in Saudi Arabia during quarantine? (2) Did the level of psychological resilience of the individual contribute to mitigating the impact of quarantine on their mental health.

Method:

A three-section online questionnaire was employed, where a demographic data sheet was introduced in section one to assess several socio-demographic attributes: (1) age, (2) gender, (3) nationality, (4) social status, (5) occupation, (6) education level, (7) city of residence, and (8) whether they were living alone or not; the second section comprised the Arabic version of the psychological resilience scale developed by Connor and Davidson (2003), and the third section included the five-question Mental Health Inventory (MHI-5) that had been translated into Arabic.

Psychological resilience scale (CD-RISC):

The Connor-Davidson Resilience Scale, 2003 (CD-RISC) consists of 25 items, where each is rated using a 5-point scale (0-4), with higher scores reflecting greater resilience. This scale has been Arabized by several researchers, and the current study used Alaseme (2012) translation, which was used in several previous studies (Alaseme & Badrea, 2018; Alaseme & Al-Ajmi, 2018). This Arabized version was revised against the original one for accuracy to ensure that both versions reflect the same meaning. Cronbach's α for the scale in its original version was (0.89) for the general population, and item-total correlation ranged from (0.30 to 0.70); however, the analysis of data from participants in the general population sample yielded five factors: personal competence, tolerance of negative effect, positive acceptance of change, control, and spiritual influences (Connor & Davidson, 2003). While in the Arabic version, Cronbach's α for the scale was (0.55) and split-half reliability was (0.59) (Alaseme & Badrea, 2018). However, in this study, Cronbach's α was (0.917) and split-half reliability was (0.881) which are both statistically acceptable. To identify the internal consistency, the correlation coefficient between the dimensions and the total score of the scale was used (Table 1).

Table 1

Dimensions-Total Correlations for the Connor-Davidson Resilience Scale

No. of Items	Scale of Correlation Coefficient	No. of Items	Scale of Correlation Coefficient
1st dimension: personal competence		2nd dimension: tolerance of negative effect	
24	0.757**	14	0.520**
12	0.483**	19	0.673**
11	0.465**	7	0.725**
25	0.423**	6	0.697**
10	0.507**	15	0.533**
23	0.521**	18	0.669**
17	0.661**	20	0.509**
16	0.497	4th dimension: Control	
3rd dimension: A positive acceptance of change		21	0.807**
8	0.629**	13	0.762**
2	0.678**	22	0.808**
5	0.702**	5th dimension: spiritual influences	
4	0.742	3	0.634**
1	0.703	9	0.874**

** significant at ($\alpha = 0.01$)

It is clear from the above table that all correlation coefficients between the dimensions and the total scale are statistically significant. The highest value was 0.874 while the lowest value was 0.423.

Mental Health Inventory (MHI-5)

To measure the mental health of the respondents, a short 5-item questionnaire “the Mental Health Inventory (MHI-5)” was used. The MHI-5 is a measurement of overall mental health that can be employed

for screening symptoms of depression and anxious feelings (Rumpf et al., 2001; Yamazaki et al., 2005). It is a component of the Short Form Health Survey (SF-36) (Ware, Kosinski, & Gandek, 1993). The MHI-5 consists of five questions, each of which has six possible answers that are scored on a scale from 1 to 6 (the minimum score is 5 and the maximum score is 30). A standard linear transformation was used to convert the overall score into a variable that ranges from 0 to 100, where a score of 100 indicates that mental health is optimal. Since a cut-off point has not been formally established for the Saudi version of the MHI-5, in this study, moderate-to-poor mental health was defined using a cut-off score of 60, which is frequently utilised and offers optimal specificity and sensitivity for the detection of symptoms of depression (Kelly et al., 2008). The process of translating the MHI-5 into Arabic comprised several different steps. Firstly, the scale was translated into Arabic by the study author herself. Then, the translation was separately reviewed by three scholars, one psychologist, and two bilingual professional translators. This review involved comparing the original version with its translated Arabic version to determine the extent to which Arabic items assist the same construct as that of the English ones, and to make any suggestions for improving the translation. The items were then re-translated into English by an independent translator without viewing the original text to verify that linguistic equivalence had been achieved. Afterwards, the preliminary version was shared with a sample comprising 10 respondents from the community to verify that the items were readable and comprehensible. In this study, Cronbach's α coefficient was (0.882). The table below shows the internal consistency validity, values ranging between (0.748-0.348).

Table 2*Item-Total Correlations for the Mental Health Inventory (MHI-5)*

No. of Items	Corrected Item-Total Correlation
1	0.652**
2	0.748**
3	0.470*
4	0.746**
5	0.348*

** significant at ($\alpha = 0.01$)**Data Collection Procedure:**

Google Forms were used to create an electronic version of the measure, and then it was distributed on social media platforms. A participant information sheet was given to each candidate, which included the study aims, protocol, and confidentiality issues, and if they were willing to participate in the study, they were then asked to fill out an e-consent form and then proceed to the demographic information sheet and scale items. Data collection was carried out between April and May 2020.

Participants:

The sample comprised a total of 884 adults and the data were gathered from them in April 2020 after they had spent one month in quarantine. The eligibility of the participants was based on them providing consent and answering the form in full. It is evident from the following table that the study sample was predominantly female (82%) and comprised Saudi citizens (94.7%). In terms of marital status, 66% were married, while 24.3% were single. Regarding their professional status, 44.6% were employed, 39.8% were at the time unemployed and most of the participants were not living alone (96%). Most of the sample had a university education (67.8%) and were from different age groups: 28.8% were in the 31-40 age group, 27.9% were in the 41-50 age group, and the remainder were dispersed in other age groups. Most of the respondents lived in Riyadh (62.4%).

Table 3*Description of the Demographic Characteristics of the Study Sample*

Variable	Categories	N	%
Gender	Male	159	18
	Female	725	82
Nationality	Saudi	837	94.7
	Non-Saudi	47	5.3
Age	Less than 20	32	3.6
	21-30	193	21.8
	31-40	255	28.8
	41-50	247	27.9
	51-60	126	14.3
	More than 60	31	3.5
Social Status	Married	589	66.6
	Never been married	215	24.3
	Divorced, separated, or widowed	80	9
Occupation	Student	84	9.5
	Employee (public or private sector)	394	44.6
	Own business	54	6.1
	Unemployed (including housewives and Pensioners)	352	39.8
Living alone	Yes	55	4
	No	849	96
Education level	High school and less	142	16.1
	University	599	67.8
	Post-graduate	143	16.2
City	Riyadh	527	62.4
	Jeddah	151	17.9
	Kmees mshet	12	1.4
	Kobor	22	2.6
	Alqateef	10	1.2
	Others	162	19.2

Statistical Analysis:

SPSS (version 23.0 software) was employed for data analysis. The study instrument's reliability was assessed using the Cronbach's α coefficient, whereas the nature of the correlation between mental health and psychological resilience was explained using the Pearson correlation coefficient. The T-test was used to identify the mental health differences between gender, nationality, and residence. On the other hand, the ANOVA test was employed to examine the mental health differences between variables that fall into greater than two categories (age group, social status, occupation, and level of education). P-values below 0.05 ($p < 0.05$) indicated that the results were significant.

Results:

The study outcomes revealed that most of the participants (76.9%) had committed to remaining in their homes before the imposition of the quarantine, while 54.6% adhered to a routine during the day to arrange their time. A total of 91.2% maintained communication with others via phone or social media channels, and 80.2% of the participants said that the quarantine made them increase the amount of time they spent with their family members. Meanwhile, 73.8% stated that the quarantine did not have a negative impact on their finances. The findings demonstrated that the mental health levels of most of the participants (88.1%) were poor when in quarantine as they were under the cut-off score of 60. The table below presents the mental health levels of the study sample:

Table 4

Level of Mental Health among General Population during the COVID-19 Pandemic

Level of mental health	N	%
High (>60)	105	11.9
Low (< 60)	779	88.1
Total	884	100

The T-test was utilised to identify specific differences in the changes in mental health caused by the quarantine according to the demographic variables (gender, nationality, and residence), the results of which are presented in Table (5) below:

Table 5

Gender, Nationality & Residence Differences in Mental Health

Variable	Categories	N	Mean	Sd	(F)	Sig	95 % CI		T value	P
							LL	UP		
Gender	Male	159	2.54	1.11	5.713	0.017	0.022	0.32-	1.707-	0.088
	Female	725	2.69	0.98						
Nationality	Saudi	837	2.65	1	0.206	0.65	0.016	0.57-	1.852-	0.064
	Non-Saudi	47	2.93	1.04						
Residence	Live alone	35	2.46	1.06	0.053	0.819	0.127	0.55-	1.231-	0.219
	With others	849	2.67	1						

As can be seen in the table above, none of the differences are statistically significant at the level of (0.05), thus indicating that the variables have no impact on the effects caused by quarantine on mental health.

The “One-way ANOVA” test was employed to identify specific differences in the changes in mental health caused by the quarantine according to the demographic variables (age, social status, occupation, education level), the results of which are presented in the Table (6) below:

Table 6

Age, Social Status, Occupation & Level of Education Differences in Mental Health

Variable	Source of variation	Sum of squares (ss)	df	Mean sum of squares (MSS)	(F)	p-value
Age	Between Groups	46.519	5	9.304	9.642	0.000
	Within Groups	847.248	878	0.965		
	Total	893.768	883			
Social status	Between Groups	15.378	2	7.690	7.712	0.00
	Within Groups	878.389	881	0.997		
	Total	893.768	883			
Occupation	Between Groups	8.238	3	2.746	2.729	0.043
	Within Groups	885.53	880	1.006		
	Total	893.768	883			
Level of Education	Between Groups	0.047	2	0.024	0.023	0.977
	Within Groups	893.720	881	1.014		
	Total	893.768	883			

As can be observed from the preceding table, statistically significant differences existed at the (0.05) level in terms of the changes in mental health caused by the quarantine according to the variable of age, as the F value was 9.642, which had statistical significance at the (0.05) level. According to the results of the Scheffé test, it was identified that the differences favoured younger individuals. In other words, mental health levels in the younger age group were higher when compared with other age groups

Furthermore, the outcomes revealed that statistically significant differences existed at the (0.05) level according to social status, as the F Value was 7.712, which had statistical significance at the (0.05) level. Based on the results of the Scheffé test, the differences favoured individuals who had not been married, because it was determined that mental health levels of this group were higher than those who had been married.

In terms of the variable of occupation, the outcomes indicated that statistically significant differences existed at the (0.05) level because the F Value was 2.729, which had statistical significance at the (0.05) level. According to the results of the Scheffé test, it was identified that these differences favoured the students, as it was determined that their mental health levels were higher than other occupational groups.

Nevertheless, statistically significant differences were not observed at the (0.05) level regarding the impact that education level had on the effects caused by the quarantine on mental health.

Subsequently, the study proceeded to answer the primary research question of whether people's psychological resilience impacted their mental health while in quarantine because of the pandemic. To answer this question, the Pearson Correlation Coefficient was used to identify the relationship between mental health and psychological resilience. The results are provided in table (7) below:

Table 7

Correlation between Mental Health & Psychological Resilience

Mental Health	Psychological Resilience	
	r	P-value
	0.390**	0.00

The outcomes demonstrated that the correlation coefficient for the relationship between a person's level of psychological resilience and their mental health when in quarantine had a value of 0.390, which had statistical significance at the (0.01) level.

According to the sample studied, it is suggested that the extent to which an individual is psychologically resilient is directly correlated with their mental health status, which entails that if a person's psychological resilience level is increased, their mental health status will increase accordingly.

Discussion:

In the current study, psychological assessments were conducted online to the mental health levels of 884 adults from the general population in Saudi Arabia while a quarantine had been imposed in the country when COVID-19 pandemic prevailed. There was an increased prevalence of symptoms of anxiety and depression when the COVID-19 pandemic was at its peak; these results revealed that among the general population, public health crises could lead to mental health deterioration. When discussing the results, it is vital to take consider two points, namely the time of data collection and the dominating groups of the sample (female gender, Saudi citizens, married people, not living alone, having a university degree, and living in Riyadh). At the time of data collection, which was at the beginning of the outbreak in Saudi Arabia, people were challenged by mandatory quarantine, and the accompanying anxiety and fear from several aspects, such as the fear of being infected, fear of isolation and distance from family and friends, unexpected unemployment and worry of losing financial stability, and above all, the uncertainty associated with COVID-19 with a large number of false, misleading and sometimes harmful information about the virus, which may have had an impact on the results of this study. A systematic review was conducted to synthesise the existing studies on the impact of COVID-19 on the psychological status of the general population and the related risk factors. The increased prevalence of symptoms of anxiety (6.33% to 50.9%), depression (14.6% to 48.3%), post-traumatic stress disorder (7% to 53.8%), psychological distress (34.43% to 38%), and stress (8.1% to 81.9%) have been observed among the public in China, Spain, Italy, Iran, USA, Turkey, Nepal, and Denmark during the COVID-19 pandemic (Xiong et al., 2020).

The findings of this study showed that 81% of the population had poor mental health during the acute phase of the pandemic, however considering that females (82%) were the majority in this study compared to males (18%), this result agrees with what the systematic review

indicated that females were reported as generally being more likely to develop psychological distress and mental disorders when compared to their male counterparts during the pandemic (Xiong et al., 2020). Furthermore, the outcomes of the current study are analogous to those of research conducted in China that also had the aim of testing the effect that psychological resilience had on the mental health status of the general population when COVID-19 pandemic impacted the country. Moderate-to-severe depression, anxiety, and symptoms of somatisation were observed in the general population at rates of 18.2%, 8.8%, and 16.6%, respectively (Ran et al., 2020).

The findings of this study revealed that the mental health of the younger age group in the sample was better than that of the other participants; on the other hand, another study conducted in a neighbouring city indicated that 60% of the students experienced a mild risk of psychiatric problems compared to 57.4% of the faculty members, 52.3% of the staff (Almiskry et al., 2021). Our study results contradict the findings of Panchal and other researchers (2020). Their research determined that because of factors associated with age as well as closure of higher education institutions and lost income because of the pandemic, these outcomes can cause mental health to deteriorate. Statistics indicate that approximately (56%) of individuals in this age group experienced symptoms of anxiety and/or depression and their risk of suffering from substance abuse disorder were already high. In research conducted by Field and colleagues (2020), it was found that the mental health of younger people worsened in comparison to older people, which manifested as depression, anxiety, and symptoms of PTSD, along with the increased prevalence of exhaustion and sleep disorders.

Conversely, another study emphasised the effects of older people's isolation during the quarantine due to their increased risk of contracting the disease, which led to their home confinement. Since it is not easy to cope with isolation, they may suffer from varying symptoms like mood

disorders, loneliness, decreased cognitive abilities, and sleep disorders (Buenaventura, Ho & Lapid, 2020). Normally, the stress reactivity of elderly individuals tends to be lower, and their ability to regulate their emotions as well as their wellbeing is better than younger people (Lee et al., 2019); however, considering the breadth and size of the pandemic, concerns were raised about increased mental health problems among the elderly, which could be the reason for their reduced mental health status. Additionally, another issue could be that the elderly do not possess the necessary resources to cope with COVID-19 related stress including insufficient availability of smart technology (which was crucial for sustaining social connectivity and reaching appropriate mental health resources), while they may also experience social problems like having limited family or friends around them, or the reduced ability to engage in routines or activities. Therefore, the mental health of the elderly could deteriorate because of the lack of these resources.

A particular risk factor that has an association with wellbeing is gender (Mroczek & Kolarz, 1998). An increased prevalence of sadness, anxiety, and stress was observed more in females than males (Bergdahl & Bergdahl, 2002; Gao et al., 2020). This research did not identify differences that were statistically significant between genders in terms of the pandemic and quarantine effects on mental health; nevertheless, this could have been due to the limited number of males included in the study sample as mentioned before. However, the results of an Arabic study conducted in a neighbouring country showed that the proportion of males and females who experienced mild risk of psychiatric problems during the pandemic was 51.5% and 61.3% respectively (Almisky et al., 2021). In addition, several other studies reported similar results such as one Chinese study which confirmed the differences between genders in terms of symptoms of anxiety, stress, and depression during the outbreak in favor of males (Wang et al., 2020). Results of another study that investigated the vulnerability to stress while the pandemic was ongoing in 25 countries, indicated that females had higher stress

levels (Limcaoco et al. 2020). The findings of the research conducted by Guadagni et al. (2020) suggested that the impacts of the COVID-19 pandemic on men and women were different, and this is because of the types of roles women were required to fulfil at the same time, such as home schooling their children, working from home, as well as doing the housework and caring for members of the family. As a result of the gender role, the burdens that women are required to carry within the family are impacted, and findings revealed that during the quarantine, women experienced more symptoms of mood disorder, trauma and anxiety related to sleeping problems. This may explain why most of the current study sample suffers from poor mental health, given that most of the sample were female.

Mental health can be affected by living alone, particularly in periods of crisis. Nevertheless, the lack of a statistically significant difference between the effects of living alone or with other people on mental health levels in the pandemic can be explained by the fact that only (4%) of participants lived alone compared to (96%) who lived with other people. The small number of people living alone could reflect the general trend in Saudi society as people generally choose to live with their families. Nonetheless, it was found in another study that individuals who lived alone during the pandemic had the highest scores for depression (Field, T., Mines, S., Poling, S., Diego, M., Bendell, D., & Veazey, C. 2020).

Regarding social status, our findings agree with Gao et al's study results (2020), which reported that married people had a higher level of anxiety during the pandemic compared to unmarried people. On the other hand, these findings contradict other studies that reported that stress levels of married people were lower than those of single people during the pandemic (Almiskry et al., 2021; Kowal, et al., 2020). An examination of past studies showed that being married or in an intimate relationship had a positive effect (Braithwaite et al., 2010). Conversely,

other researchers found no differences related to marital status on perceived stress (Wang et al. 2020; Tian et al. 2020). However, numerous studies had proposed that being in a successful marriage is advantageous for the couple's psychological and physical health, whereas distress or discord in the marriage can have a detrimental impact on an individual's health and wellbeing and can significantly impact the life quality of the entire family (Maiti et al., 2020). As anticipated, both natural and socio-cultural crises can impact all individuals to a certain degree and can also impact their interpersonal relationships. Married dyads, who are emotionally close and intense, are also impacted, and this has been consistently identified during the present COVID-19 pandemic in a variety of different cultures, which has increased the rates of morbidity and distress during this period of uncertainty (Maiti et al., 2020).

All relationships experience difficult periods when the commitment of the respective partners is tested. How they have previously adjusted, their methods of coping, and their level of intimacy are all factors that determine whether the relationship will survive (Acker, 1992). Periods in which relationships can be tested can include moving house or employment, gender roles, and caring for children. Regrettably, the ongoing COVID-19 pandemic has combined several different challenges, which have presented various unforeseen changes and new problems (work pressures in the home, new gender roles with no domestic assistance) which creates considerable stress because of the necessity to adjust (Rahe & Arthur, 1978). Therefore, difficulties with adaptation and the requirement to spend large amounts of time in each other's presence within the home can stimulate existing conflicts in a marriage that may already be struggling. Therefore, it should be considered that in various instances, the ongoing crisis caused by the pandemic may only be causing existing marital problems to be unmasked or worsened. Additionally, the high levels of guilt and anxiety that people experience regarding the risk of infecting others should be considered, which can lead to further pressure on families during the pandemic. These previ-

ous factors may explain the reason for the low mental health of the general population in the current study, given that most of the participants were married women.

In Osofsky et al's (2011) study, findings affirmed that there was a negative correlation between psychological resilience and the symptoms of anxiety and depression in people who experienced a life-threatening crisis. This has strong similarities to the present study findings, which indicated that an individual's psychological resilience and mental health are positively correlated, suggesting that their mental health increases proportionally to their resilience.

In Table (7), the Pearson Correlation Coefficient results were presented, where it was shown that there was a significant association between psychological resilience and mental health during the pandemic. There was a reduced likelihood that when confronted by a public health crisis, highly resilient individuals would exhibit negative emotional systems. It has been demonstrated that psychological resilience is a key factor in enhancing the mental health of refugees and individuals who have survived a natural disaster (Kukihara et al., 2014; Poudel-Tandukar et al., 2019). In this regard, Kukihara et al. (2014) argued that increased resilience was a predictor of reduced symptoms of depression and post-traumatic stress disorder in individuals who had survived the earthquake, tsunami and nuclear disasters in Japan. These findings concur with those of our study as they demonstrate how psychological resilience, as the potential ability to self-protect oneself, could assist individuals with coping with disasters and surviving emergencies.

Conclusions:

When the COVID-19 pandemic reached a peak in Saudi Arabia, the results showed that 88.1% of the general population were poor in their mental health. Moreover, the results indicated that individuals whose resilience was high had a reduced likelihood of exhibiting emotional

symptoms, whereas people whose resilience was lower had an increased likelihood of showing such symptoms. Psychological resilience could be a critical target for psychological interventions focused on enhancing mental health. Additional studies are necessary to explore the specific psychological resilience mechanism in these relationships. Overall, the findings suggest that interventions to counteract the disruptions induced by COVID-19, might have an impact on population mental health and wellbeing.

Conflict of Interest Statement:

The author declares no conflicts of interest for the authorship and/or publication of this article.

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