ORIGINAL ARTICLE

The impact of confinement on older Jordanian adults' mental distress during the COVID-19 pandemic: A web-based cross-sectional study

Andaleeb K. Abu Kamel RN, PhD[1] ⬤ | Eman K. Alnazly RN, PhD[2] ⬤

[1]Nursing Department-Community Health, Al-Zaytoonah University of Jordan, Amman, Jordan

[2]Nursing Department-Mental Health, Al-Ahliyya Amman University, Amman, Jordan

Correspondence
Eman K. Alnazly, RN, PhD, Nursing Department, Mental Health, Al-Ahliyya Amman University, Amman 19328, Jordan.
Email: emanalnazly@hotmail.com

Abstract

Purpose: This study aimed to determine the impact of Coronavirus disease, 2019 (COVID-19) confinement on older Jordanian adults' mental distress and to assess which study variables that predict Posttraumatic Stress disorder.

Design and methods: This cross-sectional study was conducted on 315 older Jordanian adults using an online survey in Amman, Jordan between May 28 and June 12.

Findings: The assessment revealed a moderate level of avoidance ($M = 1.97$, $SD = 0.7$), a higher effect of intrusion ($M = 2.08$, $SD = 0.9$), an above midpoint level of fear 18.50 ± 8.6, and mild depression ($M = 6.96$, $SD = 7.3$). Hierarchical Multiple Regression model revealed that 77.8% of the Impact of Event Scale-Revised was explained by both Fear of COVID-19 Scale and Patient Health Questionnaire-9 (R change $= 0.66$, SE $= 8.4$, $p < 0.001$).

Practice implication: This suggests that confinement affects different aspects of the psychological well-being of older Jordanian adults. An early assessment and intervention can make confinement as tolerable as possible.

KEYWORDS
aged, coronavirus, COVID -19, depression, posttraumatic, stress disorders

1 | INTRODUCTION

The Coronavirus disease, 2019 (COVID-19) was declared a global pandemic in March 2020. Following the declaration, COVID-19 has had devastating effects on not only the world's health and social well-being, but has also had economic, political, and religious implications.[1] The predominant recommended measure to prevent the infection's spread was confinement.[2]

The state of confinement has led other researchers to study its effects on the general population. A study among the uninfected adult Indian population was conducted to assess the anxiety level and perceived mental health needs. The authors distributed online semistructured questionnaires. More than of respondents reported that they followed the government's recommendations of social distancing, avoiding travel, self-quarantine, and adequate personal hygiene measures. Respondents exhibited a high level of anxiety, of the participants were worried about COVID-19, experienced sleep difficulties, and paranoia over acquiring COVID-19, had reduced social contact, and more than of participants perceived the need for mental health care.[3]

Another recent study evaluating the effects of the stay-at-home-order and social distancing showed that there was an increased rate of depression, stress, and suicidal ideation among older adults. In addition, a decreased antiviral immune response was also noted.[4] An international online survey launched during the early days of the COVID-19 pandemic investigated the negative effect of confinement on mental health and emotional well-being. Due to home-confinement, there was an increased negative effect on the mental and emotional well-being of individuals with more people developing depressive symptoms during the pandemic as compared to the period before the pandemic and confinement period. The survey analysis showed stress, depression, fear, anger, frustration, boredom, and stigma during confinement. 9.8% of participants were 55 years and older, all other participants were younger than 55. Consideration should be given to cultural differences regarding mood and psychological well-being as these studies were conducted in different countries.[5]

Per Santini et al., social confinement during the pandemic heightens the sense of disconnectedness from society among older adults aged 57–85, leading to an increased risk of depression, anxiety, and stress.[6] The effect on the psychological health of the general population of India proved that the decline of psychological health variables increased with the length of confinement. Pandey et al.[7] reported an increased level of psychological distress measures (depression, anxiety, and stress) in the third week of confinement compared to the first week. Other factors affecting psychological health included age, gender, education, and marital status. The age group most affected were younger individuals who were still pursuing their educational goals. They experienced mild to severe levels of depression. Women experienced higher psychological distress (anxiety, stress, and depression) than men, and unmarried women suffered higher distress compared to divorced and married women.[7]

A similar survey was conducted in China and found that there were no differences between males and females. At the same time, people over 50, people with undergraduate-level education or lower, those who were widowed/widowered or divorced, and agricultural workers showed significantly higher stress symptoms.[8] One month after the COVID-19 outbreak commenced in China, Liu et al.[9] conducted a survey of the prevalence of Posttraumatic Stress Disorder (PTSD) among; of Wuhan and surrounding cities. They consequently found that women showed a significantly higher prevalence of PTSD in terms of re-experiencing symptoms, negative alterations in cognition and mood, and hyperarousal when compared to men.[9]

The COVID-19 pandemic is a potential source of trauma, such as experiencing the death of close relatives or friends. PTSD as defined by the US Department of Veterans Affairs is a psychological distress that occurs as a result of exposure to a traumatic or stressful event. Symptoms may include flashbacks, nightmares, and uncontrollable thoughts about the event (US Department of Veterans Affairs, 2020). A recent study by Sun et al. compared the COVID-19 pandemic to PTSD, as exposure to the virus can be a life-threatening event (Sun et al., 2010). As observed in previous infectious disease epidemics, such as the 2014–2016 Ebola epidemic and the 2002–2004 Severe Acute Respiratory Distress (SARS) epidemic, confinement also had a negative effect on mental health. Public health emergencies such as induce high incidences of PTSD and depression, and the prevalence of PTSD and depression can increase as the confinement period continues.[10]

Research on COVID-19 and psychological health has primarily focused on the general population and healthcare workers with few studies focusing on the impact of the COVID-19 pandemic on mental health in older adults. The Hashemite Kingdom of Jordan is among the many countries that have been affected by the COVID-19 pandemic. The Jordanian government subsequently implemented total confinement in which all operations in the private and government sectors were suspended, except a small number of security and health services.[11] Older Jordanian adults have been living in confinement for the last 3 months and remain so at the time of writing this paper. The government issued a stay-home-order for vulnerable groups, including older adults, to minimize exposure to the virus (MOH).

Jordan has a population of approximately 10,246,900; Amman is the most populated area in Jordan, with 1,275,857 people.[12] The older adult age of 55–64 years makes up 5.11% of the population, and those 65 years and older make up 3.67% of the population.[13] Living arrangements vary among the population of older adults. Some live alone while others reside with family including their sons, daughters, or grandchildren. Due to their vulnerability to COVID-19, stay-home-orders have caused the older population to be separated from relatives, friends, and immediate family members. This has affected customary family gatherings and celebrations such as holy feasts and other religious holidays. Religious rituals, such as the weekly Friday prayer at the mosque and the daily five prayers, have been most significantly affected. Older Jordanian adults customarily walk to the neighborhood mosques for prayers, meeting friends along the way, and carrying on other activities. The significant decrease in older adults' lack of autonomy negatively affects their physical and mental well-being, as daily chores are no longer taking place.

Considering this, the current study aimed to determine the impact of COVID-19 confinement on the mental distress of older Jordanian adults, and to examine the mental distress measures IES-R, FCV-19S, and PHQ-9 variation across sociodemographic characteristics. More specifically, the study assessed the study variables that predict PTSD.

2 | METHODS

2.1 | Study design

A cross sectional, and correlational survey design was utilized to assess psychological well-being of older adults during confinement. The inclusion criteria were Jordanian women and men who were aged 60 years and above that had access to cell phones or computers or had family members that were able to read and mark survey question answers. All participants were living in Amman/Jordan during the COVID-19 Pandemic. The exclusion criteria were individuals who had mental-health problems, those who were in quarantine due to the COVID-19 infection and were living in resident (nursing) homes. Participants completed online surveys through google survey[14] from May 28 to June 12. The study was announced via email, messenger, and text messaging. It was conducted during the period that the Jordanian government issued a stay-at-home order for older adults, where only a limited number of essential services were allowed to stay open.

2.2 | Participant recruitment

Participants were recruited through convenience sampling which then expanded to utilizing a snowball sampling technique. A snowball sampling technique is defined as existing study participants being asked by researchers to identify other study participants.[15] The study's announcement included information related to the survey (title of the study, the purpose and significance of the study, privacy information, researchers' contact email, and phone numbers to contact the researchers if they agreed to participate. Researchers contacted a total of 17 older individuals known to the research team. The study announcements were sent via email and text message to the group of 17 individuals and this group agreed to forward the announcement to other friends, relatives and neighbors who met the inclusion criteria.

2.3 | Data collection

People who agreed to participate were contacted by a member of the re-search team through email or text message. All participant's questions regarding participation in the study were answered and a URL linking to the consent form and google survey were sent to each participant who agreed to participate. A signed consent to participate was confirmed through electronic signature (i.e., participants initial on the form).

The researchers emailed the URL to a total of 498 participants with a total of 315 (63%) responses returned. The sample size was determined by using Power and Sample Size,[16] using a population SD of 0.4, the margin of error 0.05, and a 95% confidence interval. This returned an estimated sample size of 245 respondents; ultimately, 315 participants were recruited for the survey.

2.4 | The research instruments

2.4.1 | Sociodemographic characteristics and health-related variables

Participants were asked to electronically enter their age, gender, education level, marital status, employment, living arrangement (e.g., with family, son's/daughter's family, and relative's family), monthly income, history of chronic diseases, and dependency level.

2.4.2 | Self-rated adherence to confinement. orders

The visual analogue scale (VAS) is a psychometric response scale,[17] was used to determine participants' level of compliance with the confinement orders. The participants were asked to respond to the following VAS item: "To what extent are you complying with the COVID-19 confinement order? Rank your answer from 'not complying at all' (0) to 'fully complying' (10)."

2.4.3 | Self-rated general health scale

A single item question which measures participants perceived their own general health status during the preceding month using a 12-Item Short-Form Health Survey.[18] Researchers asked the following question: In general, how would you describe your general health 5 excellent, 4 = very good, 3 = good, 2 = fair, and 1 = poor. A higher score indicates a higher general health status. This assessment has been shown to be consistent with previously validated single-item general measurements of subjective wellbeing, which demonstrate good reliability and validity.[19]

2.4.4 | The Impact of Event Scale—Revised (IES-R)

The IES-R measures PTSD symptoms in survivors after a stressful event. In this study, people experienced social isolation, anxiety, panic,

trauma-related memories, and fear for survival because of COVID-19.[20] It is short and can be used for recent and specific traumatic event.[20] In this study IES-R was used to measure the psychological impact of the COVID-19 Pandemic. The scale comprises 22 items regarding difficulties people have experienced in the past 7 days as a result of stressful events. Items are rated using a five-point Likert-scale ranging from zero to four (0 = "not at all," 1 = "slightly," 2 = "moderately," 3 = "quite a bit," and 4 = "extremely"). The scale features three subscales: intrusion (eight items), avoidance (eight items), and hyperarousal (six items). Total scores range between 0 and 88. The maximum mean score for each subscale is four, and the maximum "total mean" score is 12. Lower scores indicate less stress. A score of 33 or above indicates that PTSD may be present. According to previous literature,[20,21] the internal consistency of the IES-R subscale has previously been established: the Cronbach's α values for intrusion, avoidance, and hyperarousal are 0.87–0.94, 0.84–0.87, and 0.79–0.91, respectively. The scale's test–retest reliability over a 6-month interval ranged from 0.89 to 0.94.[20] The Cronbach's α for IES-R subscales in this study were: Avoidance: 0.802; Intrusion: 0.904; Hyper arousal: 0.888.

2.4.5 | The Fear of COVID-19 Scale (FCV-19S)

FCV-19S[22] is a self-reported instrument that was developed for the general Iranian population and can be used for both men and women and across a wide spectrum of ages. The FCV-19S is considered a one-dimensional scale, and contains seven items, all of which are scored using a five-point scale ranging from one ("strongly disagree") to five ("strongly agree"). Total scores range from 7 to 35. The Cronbach's α for FCV-19S scale in this study was 0.934.

2.4.6 | The Patient Health Questionnaire-9 (PHQ-9)

PHQ-9[23] is a nine-item self-administered instrument that is used to detect depression in the past 2 weeks in older adults under confinement. Responses are scored between 0 and 3 with (0 not at all, 1 = several days, 2 = more than half the days, and 3 = nearly every day). The total score is ranging between 0 and 27. The severity of the respondent's depression symptoms will be calculated by summing the scores of nine items. The severity index score is classified depression as follow: Minimal (0–4), mild (5–9), moderate (10–14), moderately to severe (15–19), and severe (20–27). The Cronbach's α for original scale was 0.88 and test-retest reliability was 0.84. The Cronbach's α for PHQ-9 scale: 0.945.

2.5 | Scales administration

All scales were translated from English into Arabic by following the five steps recommended by Guillemin, Bombardier, and Beaton[24]: translation, back-translation, committee review, pretesting, and weighing of scores.

The validity of these questionnaires was established using a panel of eight experts who utilized face, construct, and criterion validity methods.[25] Five out of the eight experts are faculty members who hold PhDs and specialize in mental health nursing medical-surgical nursing and community health nursing. The other three experts are nurses with master's degrees specializing in community health nursing and geriatric nursing. The panel of experts agreed that the questionnaires were valid.

The three scales were administered in Arabic. The instruments were piloted using a group of 12 older adults, who were excluded from the main study, to determine the inter-rater agreement. The Cronbach's α values obtained through the pilot test were as follows: IES-R = 0.88, FCV-19S = 0.84, and PHQ-9 = 0.87. The test-retest reliability for the same group was: IES-R = 0.89, FCV-19S = 0.86, and PHQ-9 = 0.88.

2.6 | Data analyses

Data were analyzed using SPSS (IBM, SPSS Statistics, Version 24). Any missing data and outliers were addressed by double-checking the original data sources. For descriptive statistics, the frequency, percentage, mean, and SD were used. Variations in subcategories of demographic variables were checked using χ^2 tests, while independent samples t-tests and correlation coefficients were used to identify the relationship and differences between the means of the study variables. The effect size for independent t-test was calculated based on Cohen[26] and partial η^2 for one-way analysis of variance (ANOVA). Hierarchical multiple regression was conducted to examine the influence of covariates on the total IES-R score. The internal consistency of all scales and subscales was examined using Cronbach's α. Assumptions regarding multivariate statistics, including normality and multicollinearity, were assessed before analysis.

2.7 | Ethical considerations

This study was conducted in compliance with the Declaration of Helsinki and with the approval of the human subjects review board of Al-Zaytoonah University of Jordan. Consent forms were obtained from the participants before data collection. The anonymity of the participants was maintained throughout the study, with initials assigned to transcripts rather than the participants' names. Furthermore, the transcripts were only handled by the two researchers.

3 | RESULTS

3.1 | Participants' demographic characteristics

The analyzed data indicated that the mean age of the sample was 67.6 years with a SD of 7.1. The sample had 185 (58.7%) males and 130 (41.3%) females' respondents. Among them, 219 (69.5%) were married, 10 (3.2%) were divorced, 25 (7.9%) were single, and 61 (19.4%) were

either a widow or a widower (See Table 1). Most of the participants 40.6% (128) had undergraduate degrees, 23.5% (74) had postgraduate qualifications, and 15.9% (50) had only received tertiary education. It had 12 (3.8%) of the respondents mentioned they were illiterate, 8 (2.5%) were literate, 15 (4.8%), and 28 (8.9%) had only been educated to the level of secondary education. Over one half of the participants 238 (75.6%) reported living with family while 34 (10.8%) lived alone, and 43 (13.7%) were housed by their son or daughter. Among the study sample 23 (7.3%) earned less than 100 Jordanian dinars (JOD) per month, 20 (6.3%) received between 101 and 200 JOD, 38 (12.1%) were paid between 201 and 300 JOD, 34 (10.8%) lived on between 301 and 400 JOD, and another 12.1% earned from 401 to 500 JOD (Table 1). The majority of the respondents, 153 (48.6%), earned over 500 JOD per month. The participants reported 43.2% (136) having no illnesses. The remaining 56.8% or 179 persons reported having one or more chronic illnesses; 22 (7.0%) had diabetes mellitus, 48 (15.2%) hypertension, 6 (1.9%) heart disease, 2 (0.6%) cancer, 3 (1.0%) renal disease, and 98 (31.1%) had multiple problems. The respondents also reported their respective levels of dependency while performing activities of daily living. Most participants 263 (83.5%) recorded being totally self-dependent, 37 (11.7%) claimed they were partially dependent on others, and 15 (4.8%) recorded being entirely dependent on others. The mean score for the participants' self-rated adherence to confinement (VAS) orders was 8.71 (SD = 1.91) (Table 1). Over 80% perceived their health as "good-excellent" (Figure 1).

3.2 | Psychological impact of confinement

According to the results, the total calculated IES-R score was 43.02 (SD = 17.9). The IES-R scale applied consisted of three distinct sections; intrusion, avoidance, and hyperarousal, each part was assessed and yielded different mean scores. The hyperarousal domain recorded the lowest average score (M = 1.76, SD = 1.0), while the avoidance and intrusion domains yielded mean scores of 1.97 (SD = 0.7) and 2.08 (SD = 0.9), respectively. The findings suggested that both intrusion and avoidance were more significantly impacted by confinement than the hyperarousal domain.

The sample's fear of COVID-19 was assessed by the FCV-19S tool. The FCV-19S obtained a mean total score of 18.5 (8.6). The outcome represented a fear level that was mainly moderate (around the 2.5 midpoints), the first item "I am most afraid of Corona" received the highest score. The item with the lowest mean score was the last one labeled "My heart races or palpitates when I think about getting Corona."

The depression score due to COVID-19 confinement measures among the old adults was assessed through the PHQ-9 scale. The mean total depression score was 6.96 (7.3), which implies signs of mild depression. The lowest calculated depression mean was 0.39 (SD = 0.87), and it concerned the ninth item on the questionnaire. The ninth item related to the thoughts of the respondent and how they would be better off dead; thoughts of self-harm.

TABLE 1 Sample's sociodemographic characteristics (N = 315)

Variable		n (%)	χ² p value
Age (years), mean (SD)	67.6 (7.1)		
Min–Max	60–90		
Gender, n (%)	Male	185 (58.7%)	<0.002
	Female	130 (41.3%)	
Marital status, n (%)	Single	25 (7.9%)	<0.001
	Married	219 (69.5%)	
	Divorced	10 (3.2%)	
	Widow/widower	61 (19.4%)	
Education level, n (%)	Illiterate	12 (3.8%)	<0.001
	Literate	8 (2.5%)	
	Primary education	15 (4.8%)	
	Secondary education	28 (8.9%)	
	Tertiary education	50 (15.9%)	
	Undergraduate	128 (40.6%)	
	Postgraduate	74 (23.5%)	
Cohabitants, n (%)	Live alone	34 (10.8%)	<0.001
	Family	238 (75.6%)	
	Son/daughter	43 (13.7%)	
Monthly income (in JOD), n (%)	<100	23 (7.3%)	<0.001
	101–200	20 (6.3%)	
	201–300	38 (12.1%)	
	301–400	34 (10.8%)	
	401–500	38 (12.1%)	
	>500	153 (48.6%)	
Chronic illnesses, n (%)	No illnesses	136 (43.2%)	<0.001
	One or more	179 (56.8%)	
	Diabetes mellitus	22 (7.0%)	
	Hypertension	48 (15.2%)	
	Heart disease	6 (1.9%)	
	Cancer	2 (0.6%)	
	Renal disease	3 (1.0%)	
	Multiple problems	98 (31.1%)	
Level of dependency while performing ADLs (e.g., walking, eating, toileting), n (%)	Totally self-dependent	263 (83.5%)	<0.001
	Partially dependent on others	37 (11.7%)	
	Totally dependent on others	15 (4.8%)	
Compliance with confinement orders (0–10), mean (SD)	8.71 (1.91)		

Abbreviations: ADL, activities of daily living; JOD, Jordanian dinars.

3.3 | Variations across sociodemographic subcategories

This section outlines the variety of psychological distress measures across demographic subcategories. It entails several differences within some demographic categories for the psychological distress measures (IES-R, FCV-19S, and PHQ-9 scores).

Table 2 presents the IES-R variation across sociodemographic factors.

- No significant differences were found between male and female participants regarding IES-R, $t(313) = 1.787$, $p = 0.075$.
- Participants with one or more chronic illnesses showed a significantly higher level of impact of distress event (IES-R) compared with patients without any chronic illnesses, $t(313) = 3.602$, $p \leq 0.000$. The effect size with Cohen's d is 0.41, a medium effect size.
- A statistically significant ANOVA was found between marital status categories $F(3, 311) = 14.299$, $p \leq 0.001$, followed by Games Howell post-hoc test. The single and married participants had a significantly higher level of (IES-R) than divorced participants did ($p = 0.035$ and 0.027 respectively), and the widow/widower participants had a higher mean of IES-R than the married and divorced participants did ($p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.121, a medium effect size.
- A statistically significant ANOVA was found between the level of education categories $F(6, 308) = 3,835$, $p \leq 0.001$, followed by Tukey HSD post-hoc test. The secondary and tertiary levels of education had a significantly higher level of IEV-R than undergraduates did ($p = 0.001$ and 0.042, respectively). The effect size with partial eta square η_p^2 is 0.070, a medium effect size.
- A statistically significant ANOVA was found between living categories $F(2, 312) = 26.313$, $p \leq 0.001$, followed by Games Howell post-hoc test. The participants who lived alone and who lived with their son/daughter had a significantly higher level of IES-R than those living with family ($p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.144, a large effect size.
- A statistically significant ANOVA was found between monthly income categories $F(5, 309) = 5,943$, $p \leq 0.00$, followed by Games Howell post-hoc test, which indicated the participants who had a monthly income of 101–200 JD had significantly higher levels of IES-R than participants who had a monthly income levels 201–300, 301–400, 401–500, and more than 500 ($p = 0.011$, 0.008, 0.003, and $p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.092, a medium effect size.
- A statistically significant ANOVA was found between level of dependency categories $F(2, 312) = 34,309$, $p \leq 0.001$, followed by Tukey HSD post-hoc test. The partially dependent and totally dependent participants had significantly higher levels of IES-R than the totally self-dependent ($p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.180, a large effect size.
- Table 3 presents the FCV-19S variation across sociodemographic factors.

- No significant differences were found between male and female participants regarding FCV-19S score, $t(313) = 1.077$, $p = 0.283$.
- Participants with one or more chronic illnesses showed a significantly higher level of FCV-19S score compared with patients without any chronic illnesses, $t(313) = 3.867$, $p \leq 0.001$. The effect size with Cohen's d is 0.44, a of small effect size.
- A statistically significant ANOVA was found between marital status categories $F(3, 311) = 10.661$, $p \leq 0.001$, followed by Tukey HSD post-hoc test. The widow/widower participants had a significantly higher level of FCV-19S score than the single, married, and divorced ($p = 0.011$, $p \leq 0.001$, and $p \leq 0.001$, respectively). The effect size with partial eta square η_p^2 is 0.093, a medium effect size.
- A statistically significant ANOVA was found between the level of education categories $F(6, 308) = 4.866$, $p \leq 0.001$, followed by Games Howell post-hoc test, which indicated the secondary and illiterate levels of education had a significantly higher level of FCV-19S score than undergraduates ($p = 0.014$ and 0.008, respectively). The effect size with partial eta square η_p^2 is 0.087, a medium effect size.
- A statistically significant ANOVA was found between living categories $F(2, 312) = 22.886$, $p \leq 0.001$, followed by Games Howell post-hoc test, which indicated the participants who lived alone and who lived with their son/daughter had a significantly higher level of FCV-19S score than those living with family ($p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.128, a medium effect size.
- A statistically significant ANOVA was found between monthly income categories $F(5, 309) = 6.039$, $p \leq 0.001$, followed by Tukey HSD post-hoc test, which indicated the participants who had a monthly income of 101–200 JD had a significantly higher level of FCV-19S score than participants who had monthly income levels > 100, 201–300, 301–400, 401–500, and more than 500 JD ($p = 0.001$, $p = 0.042$, $p = 0.001$, $p = 0.002$, and $p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.092, a medium effect size.
- A statistically significant ANOVA was found between level dependency categories $F(2, 312) = 26.618$, $p \leq 0.001$, followed by Tukey HSD post-hoc test. The analysis showed the participants who were partially and totally dependent on others had a significantly higher level of FCV-19S score than totally self-dependents ($p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.146, a large effect size.
- Table 4 presents the PHQ-9 (depression) variation across sociodemographic factors.
- The male participants showed a significantly higher level of PHQ-9 score compared to females, $t(313) = 2.741$, $p = 0.006$. The effect size with Cohen's d is 0.313, a small effect size.
- Participants with one or more chronic illnesses showed a significantly higher level of PHQ = 9 score compared with patients without any chronic illnesses, $t(313) = 3.009$, $p = 0.003$. The effect size with Cohen's d is 0.342, a small effect size.
- A statistically significant ANOVA was found between marital status categories $F(3, 311) = 11.972$, $p \leq 0.001$, followed by Games Howell post-hoc test which showed the single and widow/widower participants had a significantly higher level of PHQ-9 score than the

TABLE 2 The IES-R variation across sociodemographic characteristics (N = 315)

Independent variables	n	Mean ± SD	df	Test value	P value
Gender					
Male	185	44.52 ± 18.28	313	1.787[a]	0.075
Female	130	40.88 ± 1708			
Chronic illness					
Have no illnesses	136	38.94 ± 16.73	313	3.602[a]	0.000**
Have one or more	179	46.12 ± 18.11			
Marital status					
Single	25	44.40 ± 21.40	(3311)	14.299[b]	0.000**
Married	219	40.20 ± 15.99			
Divorced	10	29.40 ± 9.58			
widow/widower	61	54.82 ± 18.46			
Level of education					
Illiterate	12	47.25 ± 18.60	(6308)	3.835[b]	0.001**
Read and write	8	44.50 ± 11.28			
Primary education	15	47.40 ± 13.16			
Secondary education	28	53.29 ± 17.15			
Tertiary education	50	47.44 ± 19.43			
Undergraduate	128	38.66 ± 17.07			
Postgraduate	74	41.96 ± 17.59			
Living with					
Alone	34	57.71 ± 22.05	(2312)	26.313[b]	0.000**
With family	238	39.24 ± 15.15			
With son/daughter	43	52.33 ± 19.02			
Monthly income/JD					
<100	25	43.24 ± 18.87	(5309)	5.943[b]	0.000**
101–200	20	61.15 ± 11.42			
201–300	40	45.35 ± 20.57			
301–400	36	44.53 ± 18.29			
401–500	40	43.65 ± 13.89			
>500 JD	154	39.51 ± 17.07			
Level of dependency					
Totally self-dependent	263	39.66 ± 15.99	(2312)	34.309[b]	0.000**
Partially dependent Totally dependent	37	59.35 ± 18.08			
Totally self-dependent	15	61.67 ± 15.37			

[a]Independent t test,
[b]One Way ANOVA.
**significant at ≤ 0.001.

divorced ($p = 0.009$ and $p \leq 0.001$, respectively), also the widow/widower participants had a higher mean of PHQ-9 score than married ($p \leq .0.001$). The effect size with partial eta square η_p^2 is 0.104, a medium effect size.

■ A statistically significant ANOVA was found between the level of education categories $F(6, 308) = 2.595$, $p = 0.018$, followed by Games Howell post-hoc test. Only the secondary level of education had a significantly higher level of PHQ-9 score than undergraduates

Independent variables	n	Mean ± SD	df	Test value	p value
Gender					
Male	185	18.94 ± 8.96	313	1.077[a]	0.283
Female	130	17.88 ± 8.14			
Chronic illness					
Have no illnesses	136	16.39 ± 7.95	313	3.867[a]	0.000*
Have one or more	179	20.11 ± 8.81			
Marital status					
Single	25	17.52 ± 8.87	(3311)	10.661[b]	0.000*
Married	219	17.44 ± 8.15			
Divorced	10	12.90 ± 5.26			
widow/widower	61	23.62 ± 8.78			
Level of education					
Illiterate	12	22.92 ± 5.09	(6308)	4.866[b]	0.000*
Read and write	8	18.25 ± 8.05			
Primary education	15	21.33 ± 7.53			
Secondary education	28	22.68 ± 9.08			
Tertiary education	50	21.16 ± 9.39			
Undergraduate	128	15.96 ± 7.64			
Postgraduate	74	18.26 ± 8.98			
Living with					
Alone	34	24.59 ± 9.62	(2312)	22.886[b]	0.000*
With family	238	16.76 ± 7.77			
With son/daughter	43	23.35 ± 8.55			
Monthly income/JD					
<100	25	17.12 ± 9.71	(5309)	6.039[b]	0.000*
101–200	20	27.30 ± 6.97			
201–300	40	20.63 ± 9.00			
301–400	36	18.00 ± 6.91			
401–500	40	18.65 ± 7.72			
>500 JD	154	17.11 ± 8.47			
Level of dependency					
Totally self-dependent	263	17.04 ± 7.95	(2312)	26.618[b]	0.000*
Partially dependent on other	37	25.51 ± 8.63			
Totally dependent on other	15	26.80 ± 7.38			

[a]Independent t test.
[b]One Way ANOVA.
*Significant at ≤ 0.001.

TABLE 3 The FCV-19S variation across sociodemographic characteristics ($N = 315$)

did ($p = 0.006$). The effect size with partial eta square η_p^2 is 0.048, a small effect size.

■ A statistically significant ANOVA was found between living categories $F(2, 312) = 33.992$, $p \leq 0.001$, followed by Games Howell post-hoc test. The participants who live alone and who live with their son/daughter had a significantly higher level of PHQ-9 score than those living with family did ($p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.179, a large effect size.

■ A statistically significant ANOVA was found between monthly income categories $F(5, 309) = 7.488$, $p \leq 0.001$, followed by Games Howell

TABLE 4 The PHQ-9 variation across sociodemographic characteristics ($N = 315$)

Independent variables	n	Mean ± SD	df	Test value	p value
Gender					
Male	185	7.90 ± 7.82	313	2.741*	0.006**
Female	130	5.62 ± 6.41			
Chronic illness					
Have no illnesses	136	5.54 ± 6.48	313	3.009*	0.003**
Have one or more	179	8.03 ± 7.79			
Marital status					
Single	25	9.48 ± 8.27	(3311)	11.972**	0.000*
Married	219	5.66 ± 6.51			
Divorced	10	3.20 ± 2.44			
Widow/widower	61	11.18 ± 8.43			
Level of education					
Illiterate	12	7.92 ± 7.70	(6308)	2.595**	0.018**
Read and write	8	6.63 ± 6.41			
Primary education	15	6.93 ± 6.82			
Secondary education	28	11.11 ± 8.82			
Tertiary education	50	8.26 ± 8.23			
Undergraduate	128	5.61 ± 6.72			
Postgraduate	74	6.72 ± 6.82			
Living with					
Alone	34	13.79 ± 8.63	(2312)	33.992**	0.000*
With family	238	5.23 ± 5.83			
With son/daughter	43	11.09 ± 8.99			
Monthly income/JD					
<100	25	6.16 ± 7.67	(5309)	7.488**	0.000*
101–200	20	15.20 ± 6.99			
201–300	40	8.85 ± 8.78			
301–400	36	7.53 ± 8.27			
401–500	40	5.53 ± 6.52			
>500 JD	154	5.76 ± 6.12			
Level of dependency					
Totally self-dependent	263	5.32 ± 5.95	(2312)	53.262**	0.000*
Partially dependent on other	37	14.76 ± 8.48			
Totally dependent on other	15	16.47 ± 7.47			

*Significance = 0.000.

**Significance ≤ 0.05.

post-hoc test which indicated the participants who had a monthly income of 101–200 JD had a significantly higher level of PHQ-9 score than participants who had the monthly income levels > 100, 201–300, 301–400, 401–500, and more than 500 JD did ($p = 0.002$, 0.042, 0.008, and $p \leq 0.000$, $p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.113, a medium effect size.

■ A statistically significant ANOVA was found between level of dependency categories $F(2,312) = 53.262$, $p \leq 0.001$, followed by Games Howell post-hoc test showing the partially and totally dependent participants had significantly higher level of PHQ-9 score ($p \leq 0.001$). The effect size with partial eta square η_p^2 is 0.255, a large effect size.
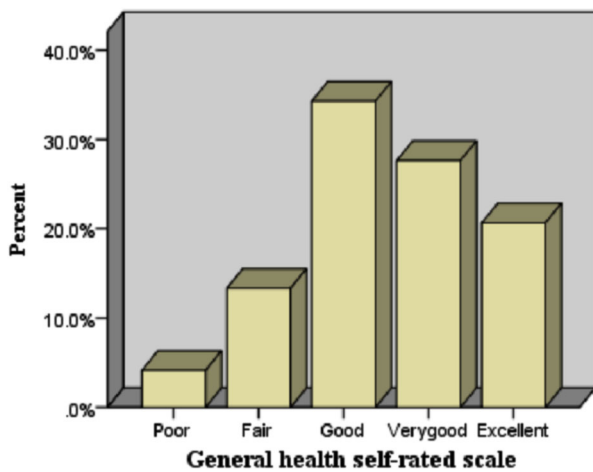
FIGURE 1 Distribution of the Impact of Event Scale—Revised variable over the normal curve shape

TABLE 5 Pearson correlation coefficient between sociodemographic data and IES-R, FCV-19S, and PHQ-9

Variable	IES-R	FCV-19S	PHQ-9
Age			
r	0.289	0.286	0.273
p	0.000	0.000	0.000
Monthly income			
r	−0.227	−0.194	−0.219
p	0.000	0.001	0.000
Compliance with confinement orders			
r	0.162	0.115	0.198
p	0.004	0.042	0.000
IES-R	1		
r		0.85	0.82
p		0.000	0.000

Abbreviations: FCV-19S; the Fear of COVID-19 Scale; IES-R, the Impact of Event Scale—Revised; PHQ-9, the Patient Health Questionnaire-9.

3.4 | Factors influencing the impact of COVID-19 event on older adults

The Pearson correlation revealed a statistically significant positive correlation was found between IES-R with fear (FCV-19S) and depression (PHQ-9) ($r = 0.85$ and 0.82) $p \leq 0.001$ respectively. Participants' age was positively correlated with depression (PHQ-9), fear of COVID-19 (FCV-19S), and impact of distress event (IES-R) at $p \leq 0.001$ ($r = 0.273$, 0.286, and 0.289, respectively). Monthly income was negatively correlated with depression (PHQ-9), fear of COVID-19 (FCV-19S), and impact of distress event (IES-R) at $p \leq 0.001$ ($r = -0.227$, −0.194, and −0.227, respectively). The participants' compliance with confinement orders was positively correlated with depression (PHQ-9), and impact of distress event (IES-R) ($r = 0.198$, $p < 0.001$, 0.162, and 0.004, respectively) and with fear of COVID-19 (FCV-19S) $r = 0.115$, $p = 0.042$. correlation coefficients were statistically significant with p-values less than 0.001 (Table 5). In conclusion, correlation analysis revealed five variables that made potential contributions to the impact of the event of COVID-19-related confinement on older adults: depression, fear of COVID-19, age, monthly income, and compliance with confinement orders.

The evaluation of the distribution of the dependent variable (IES-R) was assessed, and it was determined to have an acceptable normal distribution, evidenced by a skewness of 0.20 and a kurtosis of 0.61; this finding was complemented by a visual assessment of the curve shape (Figure 2).

3.5 | Hierarchical multiple regression

The hierarchical multiple regression was utilized to assess the effect of the age, monthly income, compliance with confinement orders, fear, and depression variables on the IES-R scores. The first three variables, age, monthly income, and compliance with confinement orders, were evaluated in the first model. Model 2 consisted of the depression and fear variables measured using the PHQ-9 and FCV-19S. The reason of selecting variables

in this order was to identify the ability of both FCV-19S and PHQ-9 to predict the impact of distress event of older people after controlling the effect of other covariates (age, monthly income, and compliance with confinement). The findings suggested that age, monthly income, and compliance with confinement orders could only account for 11.6% of the IES-R variance. However, the results were not statistically significant at 0.05 level of significance. Whereas the FCV-19S (fear) and PHQ-9 (depression) scores explained 77.8% of the observed variance in IES-R (Table 6). The calculated p-values in Model 2 showed that results for both the fear and depression variables were statistically significant ($p < 0.001$).

4 | DISCUSSION

This study assessed the impact of COVID-19 confinement on older Jordanian adults' mental distress and examined the variations of mental distress measures through IES-R, FCV-19S, and PHQ-9 scores across the sample's demographic characteristics. The study assessed the effect of study variables on PTSD.

Participants under confinement scored higher than the middle level across the three IES-R domains. Symptoms of avoidance and intrusion were moderate, while hyperarousal, such as anger and irritability, were the least impacted. Overall, the mean total IES-R score indicated that the event of COVID-19 pandemic had moderate symptoms of PTSD on participants. Additionally, fear score falls around midpoint, with mild depression. Nevertheless, many high-risk people, including older adults, were advised to adhere to social distancing by wearing face masks and other preventative measures,[27] which may be because the COVID-19 pandemic remains a serious global crisis, with the numbers of infections and deaths continuing to rise.

Variations across demographics were constructed to examine the differences within sociodemographic categories for mental distress measures (IES-R, FCV-19S, and PHQ-9). Our study showed there were no significant gender-related differences in any sociodemographic variables with the exception that male participants had significantly higher levels of depression than females. Nonetheless, literature reports conflicting results about psychological outcomes related to gender difference. A study conducted on the general population in Italy during the COVID-19 pandemic confinement reported gender-related differences between groups, with females experiencing higher depression, anxiety, and stress (Mazza et al., 2020). Other studies have also suggested depression being more common among females during the confinement than males.[28] During pandemics, however, women tend to communicate and express their mental health issues by seeking support from others for themselves and their children.[29] In contrast with females, males are generally averse to admitting fear, depression, and any psychological distress.[30] Our results contrast with those of previous studies and the norms of Jordanian society by indicating that men were more likely than women to report psychological distress. Generally, males spend more time out of the house than females, but with confinement, men are home watching reports of COVID-19 on television while the women who are busy with housework. One study exploring the direct relationship between hours spent in watching television seeking COVID-19 information and mental distress found 1 h a day caused mental distress,[31] while another study reported 3 h.[32]

Our study showed that participants with one or more chronic illnesses had a significantly higher level of PTSD, higher depression, and higher fear of COVID-19 compared to participants without any chronic illnesses. The result is in line with Mazza et al. (2020) who reported people with history of medical problems experienced higher levels of depression and anxiety. A study conducted on medical students found the presence of chronic disease

had an increasing effect on anxiety of being infected with COVID-19.[33] Chronically ill older adults in this study needed medical attention, including transportation to physician's office.

Confinement, which lasted longer for high-risk groups, resulted in older adults missing their physician appointments. In Jordanian society, the heritage, culture, and religious norms emphasizes the importance of providing care and presence in older adults' life (Older persons in Jordan, National council for family Affairs). As a result, family members are in contact with older adults, helping with everyday tasks. These family members could be high-risk groups such as healthcare workers, socially active in the community, or unaware of being infected. Older adults, especially ones with chronic illness are angry, irritable, fearful of increased risk of infection, socially isolated, lonely, worried, and disconnected from their friends and family. One study exploring the impact of mass quarantine on population during pandemics[7] concluded, mandatory mass quarantine can increase the morbidity and mortality during the pandemic, because people are trapped at home, which may exacerbate mental illness. One study showed that low monthly income increases risk perception and higher level of anxiety due to quarantine.[34]

COVID-19 is more than just a medical problem. Societies and economies are deeply affected. Although each nation is affected differently, it is more likely that poverty would increase globally. In Jordan, older adults have lower monthly income, and some rely on social security, savings, small investments, or children as the primary source of monthly income. Understanding the impact of COVID-19 on older adult is crucial to inform the responses of local governments and partners to recover from COVID-19 crisis.

A positive correlation was observed between the IES-R and both the FCV-19S and PHQ-9. Due to the prolonged time of confinement and the presence of COVID-19, older adults experienced social isolation, anxiety, depression, panic, trauma related memories, and fear for survival. Older adults are continually re-
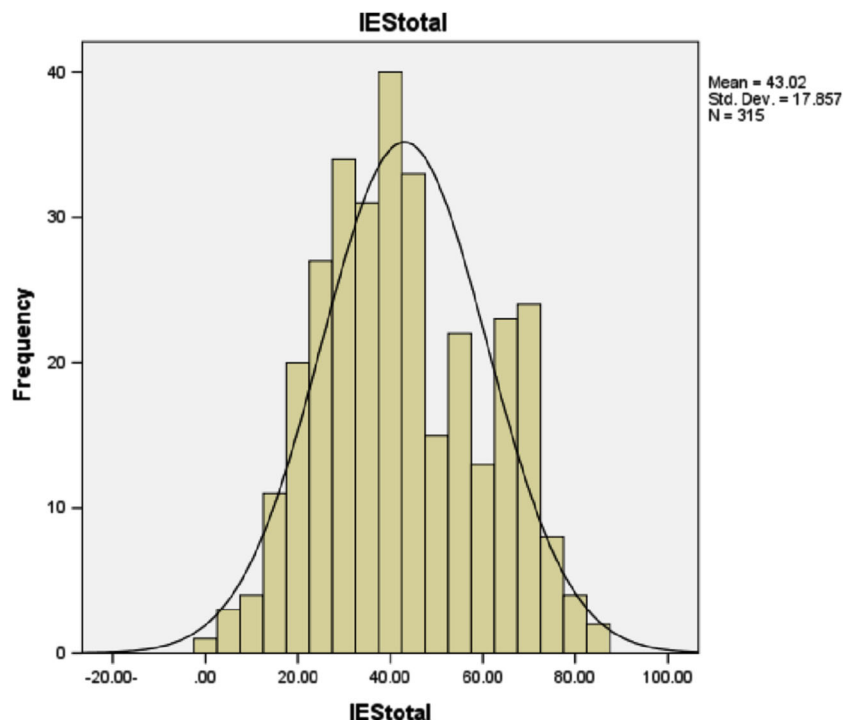

FIGURE 2 Distribution of the Impact of Event Scale—Revised variable over the normal curve shape

TABLE 6 Hierarchical multiple regression model for assessing factors influencing the impact of the IES-R in older people during COVID-19 confinement

	Variables	Adjusted R^2	SE	R^2 change	Standardized coefficient β	Sig[a]	CI
Model 1	Age	0.116	16.8	0.124	0.023	0.443[a]	−0.89–0.20
	Monthly income				−0.034	0.239[a]	−0.97–0.24
	Compliance with confinement orders				0.029	0.296[a]	−0.24–0.79
Model 2	FCV-19S	0.778	8.4	0.657	0.538	<0.001	0.94–1.30
	PHQ-9				0.374	<0.001	1.69–1.12

Abbreviations: CI, confidence interval, FCV-19S: Fear from COVID-19 Scale, PHQ-9: The Patient Health Questionnaire for Depression.

[a]Significant value was drawn from the coefficients table indicating that the two models were statistically significant (Sig < 0.05).

experiencing the trauma. In this regard, PTSD is emerging as another consequence of COVID-19.

Age was positively correlated with IES-R, FCV-19S, and PHQ-9 and general self-rated health was negatively correlated with IES-R, FCV-19S, and PHQ-9. Older adults with multiple chronic illnesses were more mentally distressed during the pandemic. These results are useful for Jordanian health authorities when planning intervention to protect older adult during COVID-19 pandemic and taking into consideration the effect of long-term depression and fear may lead to PTSD.

A strong positive correlation was observed between the IES-R and both the FCV-19S and PHQ-9. Bridgland et al.[35] conducted a study using PTSD Checklist-5 adapted to measure reactions to COVID-19 pre/peri/post-traumatic. The authors reported the continuing worldwide stressor can cause traumatic stress symptoms although the world-wide pandemic does not fit known PTSD models or diagnostic criteria. In our study, the hierarchical multiple regression revealed age, monthly income, and confinement explained approximately 11.6% of IES-R variance. 77.8% of PTSD as measured by IES-R was explained by both FCV-19 and Depression (PHQ-9). Thus, age, monthly income, compliance with confinement orders, fear, and depression significantly predicted PTSD scores in a multiple regression analysis and fear and depression are the primary predictors of the impact of event-related distress. Thus, the isolation and confinement measures implemented to bring the COVID-19 pandemic under control have contributed to mental health issues among older adults and predictors of PTSD.

Understanding the association between sociodemographic variables and mental distress variables is relevant to confront current and future mental health distress in disastrous situations and implement policies to protect current and future mental distress in older adult. The IRS-R exposures increase the risk of developing PTSD. Fear and depression may cause excessive panic, including trauma-related distressing memories and persistent negative emotions. Older adults may lack immediate social support due to stay-home-order and unfamiliarity with communication technology. This signifies the relevance of mental health well-being for older adults in confinement. Interventions to reduce mental distress might consider staying connected with families and friends through phones and provide hotlines phone numbers to support mental distress. In summary, the present results indicate that confinement during COVID-19 greatly affects older adults' mental health, and the results are adequately supported by previous findings.

4.1 | Implications for psychiatric nursing practice

In the face of the COVID-19 pandemic, and due to the nature of this infectious disease that has been associated with mental health distress, there is an unprecedented demand on mental health nurses to provide psychological support for older adults. However, as a result of the enforcement of lockdown and confinement during the pandemic, the findings of this study indicated, compliance with confinement orders positively correlated with the mental health distress of older adults. Older adults in confinement should be assessed for early detection of fear, depression, and distress symptoms while considering age, monthly income level, and compliance with the confinement orders. Early psychological support should be provided to minimize the impact of COVID-19 confinement on psychological well-being. Mental health experts should be prepared for the impact of COVID-19 on emerging psychiatric problems at the end of pandemic.

Hence, mental health nurses may assess and provide support to older adults in the community through computer-generated services at times when confinement and social isolation have been implemented and are in a position to preserve and ensure the psychological wellbeing of older adults. This is achieved by setting realistic goals for preserving and maintaining older adults' mental health wellbeing through the confinement period as well as preparing flexible strategies and action plans to support affected individuals by identifying other available resources that aid the implementation of the action plans.

4.2 | Strengths and limitations

This study has several strengths. This study represents a unique investigation of the mental health of older adults (a high-risk group for COVID-19) during the COVID-19 pandemic and helps to identify the psychological issues that such individuals may experience during confinement. The respondents showed high adherence to confinement, meaning our data adequately reflect the psychological impact of confinement. However, our study also has limitations. First, this study had a small sample size, which limits the generalizability of our findings. Second, participants' mental health was not determined before the pandemic. Consequently, we did not have baseline data to assess the effect of the pandemic on mental health. Third, all participants used social media; thus, non-social-media users may have been excluded, causing selection bias that could lead to false or

biased results. Fourth, cultural differences between different areas of Jordan, such as between urban and rural areas, should be taken into consideration. Fifth, most participants reported having good health. Thus, people with poor health and multiple chronic diseases or mental issues were not sufficiently represented in this sample.

5 | CONCLUSIONS

The results of this study clarify the psychological impact of the COVID-19 pandemic. In Jordan, the pandemic has caused mild depression, moderate fear, and moderate distress among older adults. The correlation analysis revealed five variables that made potential contributions to the impact of the event of COVID-19-related confinement on older adults: depression, fear of COVID-19, age, monthly income, and compliance with confinement orders. Males indicated significantly higher levels of depression than females. We suggest that social support be provided during the pandemic to minimize mental-health distress among older adults.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

AUTHOR CONTRIBUTION

Andaleeb Abu Kamel and Eman Alnazly contributed 50% each to this study.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon request. And will be provided if the manuscript accepted for publication

ORCID

Andaleeb K. Abu Kamel 🔟 https://orcid.org/0000-0001-6738-7594
Eman K. Alnazly 🔟 https://orcid.org/0000-0002-9327-6756

REFERENCES

1. Usher K, Durkin J, Bhullar N. Editorial: the COVID-19 pandemic and mental health impacts. *Int J Ment Health Nurs*. 2020;29:315-318. https://doi.org/10.1111/inm.12726
2. Jordanian Ministry of Health. Jordan's official COVID-19 website. 2020. https://corona.moh.gov.jo
3. Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V. Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian J Psychiatry*. 2020;51: 102083. https://doi.org/10.1016/j.ajp.2020.102083
4. Jawaid A. Protecting older adults during social distancing. *Science*. 2020;368(6487):145-145. https://doi.org/10.1126/science.abb7885
5. Ammar A, Mueller P, Trabelsi K, et al. ECLB-COVID19 Consortium Psychological consequences of COVID-19 home confinement: the ECLB-COVID19 multicenter study. *PLOS One*. 2020;15(11):e0240204. https://doi.org/10.1371/journal.pone.0240204
6. Santini ZI, Jose PE, Cornwell EY, et al. Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans

(NSHAP): a longitudinal mediation analysis. *Lancet Public Health*. 2020; 5:e62-e70.
7. Pandey D, Bansal S, Goyal S, et al. Psychological impact of mass quarantine on population during pandemics—the COVID-19 Lock-Down (COLD) study. *PLOS One*. 2020;15(10):e0240501. https://doi.org/10.1371/journal.pone.0240501
8. Tian F, Li H, Tian S, Yang J, Shao J, Tian C. Psychological symptoms of ordinary Chinese citizens based on SCL-90 during the level I emergency response to COVID-19. *Psychiatry Res*. 2020;288:112992. https://doi.org/10.1016/j.psychres.2020.112992
9. Liu N, Zhang F, Wei C, et al. Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: gender differences matter. *Psychiatry Res*. 2020;287:112921. https://doi.org/10.1016/j.psychres.2020.112921
10. Brooks S, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*. 2020;395(10227): 912-920. https://doi.org/10.1016/S0140-6736(20)30460-8
11. Abufaraj MM. Jordan's efforts to contain COVID-19: a careful interpretation of the encouraging numbers. *The Jordan Times*. April 2020. https://www.jordantimes.com/opinion/mohammad-majed-abufaraj/jordans-efforts-contain-covid-19-careful-interpretation-encouraging
12. World Health Organization. Coronavirus disease (COVID-19) dashboard. 2020. https://covid19.who.int/region/emro/country/jo
13. Index mundi. Jordan age structure. Retrieved from Jordan Age structure—Demographics (indexmundi.com). 2020.
14. Google. Google Forms. 2014.
15. Baltar F, Brunet I. Social research 2.0: virtual snowball sampling method using Facebook. *Internet Res*. 2012;22(1):57-74. https://doi.org/10.1108/10662241211199960
16. Hintze J. NCSS and PASS: number cruncher statistical systems. Kaysville Utah. 2016. http://www.ncss.com
17. Hayes MHS, Patterson DG. Experimental development of the graphic rating methods. *Psychol Bull*. 1921;18:98-99.
18. Ware J, Jr, Kosinski M, Keller SD. A 12-Item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. *Med Care*. 1996;34(3):220-233. https://doi.org/10.1097/00005650-199603000-00003
19. Sibthorpe B, Anderson I, Cunningham J. Self-assessed health among indigenous Australians: how valid is a global question? *Am J Public Health*. 2001;91(10): 1660-1663. https://doi.org/10.2105/ajph.91.10.1660
20. Weiss DS, Marmar CR. The impact of event scale-revised. In: Wilson JP, Keane TM, eds. *Assessing Psychological Trauma and PTSD*. New York, NY: Guilford; 1997:399-411.
21. Creamer M, Bell R, Failla S. Psychometric properties of the impact of event scale-revised. *Behav Res Ther*. 2003;41(12):1489-1496. https://doi.org/10.1016/j.brat.2003.07.010
22. Ahorsu DK, Lin C-Y, Imani V, Saffari M, Griffiths MD, Pakpour AH. The fear of COVID-19 scale: development and initial validation. *Int J Mental Health Addiction*. 2020;27:1-9. https://doi.org/10.1007/s11469-020-00270-8
23. Kroenke K, Spitzer R, Williams J. The PHQ-9 validity of a brief depression severity measure. *J Gen Intern Med*. 2001;16(9):606-613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x
24. Guillemin F, Bombardier C, Beaton D. Cross-cultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *J Clin Epidemiol*. 1993;46(12):1417-1432. https://doi.org/10.1016/0895-4356(93)90142-n
25. Wong KL, Ong SF, Kuek TY. Constructing a survey questionnaire to collect data on service quality of business academics. *Eur J Social Sci*. 2012;29(2):209-221. https://www.worldometers.info/coronavirus/country/jordan/
26. Cohen J. *Statistical Analysis for Behavioral Scirnces*. 2nd ed. New York, NY: Lawrence Erlbaum Associates; 1988.
27. Jordan Ministry of health. COVID-19 updates in Jordan [Press Release]. July 7, 2020. https://corona.moh.gov.jo/en/Together-to-Reopen

ABU KAMEL AND ALNAZLY

28. Guadagni V, Umilta A, Iaria G (2020). Sleep quality, empathy, and mood during the isolation period of the COVID-19 pandemic in the canadian population: females and women suffered the most. Frontiers in Global Women's Health. https://www.frontiersin.org/article/10.3389/fgwh.2020.585938

29. Pan American Health Organization. Protecting mental health during epidemics. 2009. https://www.paho.org/hq/dmdocuments/2009/Pandemia-Influenza-ENG-2.pdf

30. Schwarzer R, Schulz U. The role of stressful life events. 2001. http://userpage.fu-berlin.de/health/materials/lifeevents.pdf.

31. Bendau A, Petzold MB, Pyrkosch L, et al. Associations between COVID-19 related media consumption and symptoms of anxiety, depression and COVID-19 related fear in the general population in Germany. *Eur Arch Psychiatry Clin Neurosci*. 2020;271:1-9. https://doi.org/10.1007/s00406-020-01171-6

32. Huang Y, Zhao N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Res*. 2020;288:112954. https://doi.org/10.1016/j.psychres.2020.112954

33. Torun F, Torun SD. The psychological impact of the COVID-19 pandemic on medical students in Turkey. *Pak J Med Sci*. 2020;36(6):1355-1359. https://doi.org/10.12669/pjms.36.6.2985

34. Sallam M, Dababseh D, Yaseen A, et al. Conspiracy beliefs are associated with lower knowledge and higher anxiety levels regarding COVID-19 among Students at the University of Jordan. *Int J Environ Res Public Health*. 2020;17(14):4915. https://doi.org/10.3390/ijerph1714491

35. Bridgland VME, Moeck EK, Green DM, et al. Why the COVID-19 pandemic is a traumatic stressor. *PLOS One*. 2021;16(1):e0240146. https://doi.org/10.1371/journal.pone.0240146

How to cite this article: Abu Kamel AK, Alnazly EK. The impact of confinement on older Jordanian adults' mental distress during the COVID-19 pandemic: A web-based cross-sectional study. *Perspect Psychiatr Care*. 2022;58:17-30. https://doi.org/10.1111/ppc.12798