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The Arabic version of the fear of covid-19 scale: psychometric properties and relationship to future anxiety in Jordanians

Odeh Murad1, Khaled A. Al-Dassean2, Anwar M. Al Neweiri3, Hasan O. Murad4 and Batool O. Murad5

Abstract: The COVID-19 pandemic has caused various psychological problems worldwide, such as fear, anxiety, and depression. Since the fear of the pandemic can adversely affect disease management, it must be measured appropriately. This study aims to verify the validity and reliability of the Arabic version of FCV-19S and its relation to future anxiety in Jordanians. This cross-sectional study was conducted from September 8 to 28, 2020 on a sample of 760 Jordanian participants. According to the results, the seven items of the scale were loaded on one component, and they explained 66.3% of the total variance. Both the classical test theory and the item response theory (Rasch model) were used to evaluate the psychometric properties of the fear of COVID-19 scale items. The internal consistency (α) was 0.91. The concurrent validity was supported by the future anxiety scale (r = 0.87). The Rasch model offered good psychometric properties for the Jordanian version of the FCV-19S. The measurement invariance showed no differences concerning gender or age. The Jordanian FCV-19S was thus found to be an effective screening scale for assessing the fear of COVID-19 among the adult Jordanian population.

Subjects: Middle East Studies; Statistics for Social Sciences; Social Work; Psychological Science; Evolutionary Psychology

Keywords: Coronavirus; Fear of COVID-19; COVID-19; Future Anxiety; Jordan

About the Author

Odeh Suleiman Odeh Murad is an Associate Professor of Educational Psychology at Al Shoubak University College/Al Balqa Applied University. I received my PhD. In Educational Psychology Measurement and Evaluation from The Arab League, Institute of Arab Research and Studies, 2012, Cairo, Egypt. I have been involved in teaching the same topics at Al Shoubak University College. I am a member of the Arab Association of Educators, May 5, 2014 up to date. 5- Member of the national team for the development of the educational outcomes of private and public sections of agricultural education curricula and textbooks - Directorate of the Ministry of Education - Jordan, 2008. Dean of Al-Shoubak College from June 13, 2019 up to date.

Public Interest Statement

This study aimed to verify the validity and reliability of the Jordanian version of FCV-19S. Both the classical test theory and Rasch model were used to evaluate the psychometric properties of the scale items. Cross-sectional study was conducted on a Jordanian participants. The concurrent validity was supported by the future anxiety scale. The internal consistency (α) was adequate. The findings revealed that the Arabic version of FCV-19S is an adequate screening scale to identify COVID-19-related distress.
1. Introduction
The first COVID-19 infection surfaced in China in December 2019. In April 2020, many countries confirmed the spread of the virus, and the COVID-19 transition from an epidemic to a pandemic (Guan et al., 2020; World Health Organization, 2020). In May 2020, while efforts were concentrated on developing effective treatment, as per the preliminary data, there were 4 million confirmed contaminated cases and 3000 deaths (Dong et al., 2020). Therefore WHO announced several health measures to assist moderate the spread of the infection: physical distancing, self-isolation, and hand washing (World Health Organization, 2020). By September 2020, about 27 million people were infected worldwide with around 900,000 deaths.

The first case in Jordan appeared on 2 March 2020, from a citizen who had returned from Italy. A month later, 40 people were infected. On 17 March 2020, defense decision No. (1) was activated, which disabled the private sector and all official institutions except the vital and health sectors. Gatherings of more than 10 people were banned (National Center for Security & Crises Management, 2021). After several months of a stabilized epidemic curve, Jordan witnessed an unprecedented rise in the number of diseased cases and deaths. By 17 March 2022, about 1.68 million people in Jordan were infected, and the number of deaths climbed up to more than 13,959 (Ministry of Health, 2022).

In addition to several health measures WHO announced, some countries (USA, Italy, China, and France) took precautionary procedures, such as border control and closure (Wang et al., 2020), all of which had subsequent consequences, including job loss, financial insecurity, and disruptions in people’s activities and lifestyle and this situation is likely to have significant negative effects on the health of individuals and well-being (Galea et al., 2020). This may exacerbate mental health, loneliness, and particularly, social isolation (Holmes et al., 2020). Moreover, these unusual procedures created a state of widespread confusion among people and lead to reactions such as wholesale purchases (storage) of masks, gloves, sterilizers, and even storage of food supplies, which caused secondary disturbances (Wakashima et al., 2020).

The quick emergence of the COVID-19 symptoms–fever, dry cough, joint pain, fatigue, and shortness of breath within 2–14 days–posed a new global challenge in terms of managing the virus (Wang et al., 2020). Due to the virus’s extremely high rate of infection, individuals began to increasingly worry about COVID-19. They began to fear encountering potentially infected individuals (Lin, 2020; Murad, 2020). Unfortunately, this fear may lead to anxiety, amplifying the damage of the disease itself.

One of the defining characteristics of infectious diseases is fear, which affects the rate of transmission of the disease, its medication, morbidity, and death rate, as a scared individual may not think rationally and clearly (Dong et al., 2020). But the current treatment for COVID-19 focuses on combating the infection and producing an effective several vaccines (Wang et al., 2020). However, the psychological and social aspects have not been carefully considered as many countries around the world are preoccupied with reducing the rate of transmission of COVID-19, they should also focus on individual phobias in order to accomplish the overall aim of a COVID-19-free society (Ahorsu et al., 2020).

Researchers have already conducted studies on people’s fear of COVID-19 infection (Ahorsu et al., 2020; Alyami et al., 2020; Sakib et al., 2020; Wakashima et al., 2020), and the FCV-19S fear scale was developed to assess this fear and explore its possible relationship with other psychological scales such as the depression scale and anxiety scale (Ahorsu et al., 2020; Pakpour et al., 2020).

People are understandably concerned about contracting the virus. Furthermore, the overestimation of the death toll, as well as issues associated with the pandemic such as social distancing, quarantine, and isolation, have amplified fears, leading to stigma in many cases (Lin, 2020). Such fear could increase future anxiety, which could lead to other health and psychological problems such as...
depression and suicide (Al Tukhays, 2014). Moreover, fear and anxiety for the future can affect the social behavior of individuals who have isolated themselves to reduce the spread of the disease.

According to Van Bavel et al. (2020), fear is “a central emotional response to imminent threats such as COVID-19.” Excessive fear may exacerbate anxiety symptoms of existing mental disorders, and this is also correlated with suicides in Bangladesh (Mamun & Griffiths, 2020) and India (Goyal et al., 2020). On the other hand, according to a recent study (Harper et al., 2020), fear of COVID-19 was an important indicator of social separating and hand hygiene, indicating that fear played an critical role in individuals’ compliance with public health measures.

The fear of COVID-19 is positively related with anxiety, depression, and the perception of susceptibility to infection and fear of infection (Perz et al., 2020; Huaracaya-Victoria, et al, 2021). The FCV-19S scale has a steady unidimensional structure (Ahorsu et al., 2020; Pakpour et al., 2020). Its validity and reliability were confirmed in several countries such as Italy (Soraci et al., 2020), Japan (Wakashima et al., 2020), the USA (Perz et al., 2020), Bangladesh (Sakib et al., 2020), Saudi Arabia (Alyami et al., 2020), New Zealand (Winter et al., 2020), Russia (Reznik et al., 2020), Turkey (Satici et al., 2020), and Mozambique (Giordani et al., 2021). The results of these studies showed that the fear of COVID-19 is a unidimensional construct (e.g., Alyami et al., 2020; Giordani et al., 2021; Wakashima et al., 2020; Ahorsu et al., 2020; Perz et al., 2020; Sakib et al., 2020; Satici et al., 2020; Soraci et al., 2020). On the other hand, some studies revealed that COVID-19 fear is a multidimensional construct (e.g., Caycho-Rodr guez et al., 2021; Huaracaya-Victoria et al., 2020; Masuyama et al., 2020; Reznik et al., 2020).

In addition, the score on FCV-19S was associated with some psychological variables (Giordani et al., 2020) such as depression and anxiety (Wakashima et al., 2020). While gender differences concerning the fear of COVID-19 have also been confirmed by some studies (Giordani et al. 2021; Razink et al., 2020; Huaracaya-Victoria et al., 2020; Sakib et al., 2020), others have found no differences in opinion between the genders. (Ahorsu et al., 2020; Wakashima et al., 2020). Studies have also reported the profound psychological impacts of the COVID-19 pandemic on the general population (Rajkumar, 2020; Wang et al., 2020), and research shows that it has resulted in increased symptoms of anxiety and depression (Huang et al., 2020). According to Dsouza et al. (2020) and Matthews et al. (2019), increased anxiety and depression is closely related to poor mental health, which sometimes leads to suicide.

The Corona virus is still spreading in numerous nations throughout the world, including Jordan, more than a year and a half after the COVID-19 epidemic broke out. It’s worth noting that vaccinations began in 2020 and have continued until now. Despite the strong opposition to a recently produced vaccination and powerful treatments that have not been tested in humans (Rome & Avorn, 2020). Jordan had 4,455,974 persons who have received the two doses of the vaccination as of 26 March 2022, approximately 44.5% of the total population (Ministry of Health, 2022). There is no precise estimate of the epidemic’s duration as of yet, which adds to the sense of ambiguity (Haktanir et al., 2020). As a result, there was an upsurge in depression and anxiety in the general population. Anxiety, depression, and stress are some of the most common symptoms of COVID-19 fear (Zandifar & Badrfram, 2020). Future anxiety is a fear of the unknown that originates from past and present events, and it is one of the sorts of anxiety that poses a threat to an individual’s life.

Following a review of the prior research, adequate psychometric characteristics of domestic and improved versions of FCV-19S have been documented in a number of nations throughout the world. The reliability of a single factor structure in the COVID-19 fear scale is debatable (Ullah et al., 2021), as documented in the preliminary study (Ahorsu et al., 2020), and validated by many changes and translations into different languages (Alyami et al., 2020; Haktanir et al., 2020; Nguyen et al., 2020; Perz et al., 2020; Sakib et al., 2020). In terms of whether the FCV-19S factor is a bi factor, as reported in (Huaracaya-Victoria et al., 2020; Masuyama et al., 2020; Reznik et al., 2020), the variations in the results suggest that the FCV-19S factor’s structure needs to be
investigated. Especially in relation to Jordan. An instrument to assess the psychological implications of the COVID-19 outbreak, as well as the levels of fear people feel during the pandemic, was required (Ahorsu et al., 2020; Satici et al., 2020).

Therefore the researchers chose FCV-19S, which was built by Ahorsu et al. (2020) and developed by Alyami et al. (2020) into the Arabic version of FCV-19S. It is a one-dimensional self-reports that measures the seriousness of the fear of COVID-19 during the pandemic. Consisting of seven easy-to-manage items, it has shown acceptable psychometric properties in the Arabic environment. The relationship between FCV-19S and future anxiety has also been revealed. FCV-19S's validity and reliability have been verified in the same way as mentioned in Ahorsu et al. (2020). The questionnaire is simple to interpret in its original form. Without prior training, it is simple to administer. It is appropriate for both men and women of all ages (Sakib et al., 2020). In prior investigations, the original FCV-19S was conducted to a comprehensive psychological analysis. To determine the psychometric properties of the scale, as well as its reliability and validity. Classical test theory (CTT), Rash Model, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) were employed by the scale's developers (Ahorsu et al., 2020). In terms of the Arabic version created by (Alyami et al., 2020) confirmatory factor analysis was used only to examine the scale's psychometric properties and validate its factor structure. In comparison to Alyami et al. (2020), the current study used exploratory factor analysis, confirmatory factor analysis, and item response theory to investigate the reliability, concurrent validity, and confirmatory validity of the Arabic version of the scale.

1.1. Aim of the Study
The researchers decided to verify the psychometric properties of a concise and valid tool to measure individuals’ fear of COVID-19, one that facilitates the initiatives of the Ministry of Health and specialists to calm public fears. In this context, this study aims to verify the validity and reliability of the Arabic version of FCV-19S and the effect of its score on future anxiety.

2. Method

2.1. Participants and Procedure
This cross-sectional study was conducted from September 8 to 28, 2020. The target was the general population of Jordan with ages ranging from 18 to 60 years. Their native language was Arabic. The participants were recruited through an advertisement on social media (WhatsApp, Facebook, Instagram, Twitter, and others). The participants agreed to take the study followed a link on the One Drive platform that led them to an electronic questionnaire prepared on Google Forms. The sample included 760 participants from different regions of Jordan (North, Central, and South region of Jordan). They were non-probabilistically chosen using the convenience sample method with an inclusion criterion of at least 18 and not more than 60 years of age. Consent to participate was also taken in the electronic form of the study. The first part of the survey contained a description of the study, its objectives, and an electronic consent form. The participants were requested to complete the survey. They were educated almost their right to withdraw their information at any time. The time taken in the survey is approximately 12–17 minutes. The ethical principles of the American Psychological Association are followed as per the 2010 Guidelines and the Ethical Standards of the Declaration of Helsinki.

2.2. Demographic Information
Participants asked to report their demographic information including age, gender, educational level, residence, marital status, and whether they currently smoke.

2.3. Measures

2.3.1. Fear of COVID-19 Scale (FCV-19S)
This study used the Arabic version of FCV-19S created by Alyami et al. (2020), who also developed the unique version of FCV-19S, first built by Ahorsu et al. (2020). The Arabic version was presented to
a ten-member expert panel to evaluate it in terms of clarity of language, typography, and its suitability for its purpose. As per the panel, no changes were regarded necessary. The Arabic version of FCV-19S consists of seven items with a five-item Likert point response: “1 = strongly disagree” to “5 = strongly agree” and a total score range of 7–35. A higher score indicated a high level of fear of COVID-19. The Arabic version of FCV-19S has acceptable reliability (Cronbach's α 0.88).

2.3.2. Future Anxiety Scale (FAS)

The participants’ future anxiety was assessed using the FAS scale which consisted of 30 items, with a three-item Likert response format. The participants were asked to indicate their response as “3 = always apply,” “2 = sometimes apply,” or “1 = rarely apply,” with a total score range of 30–90. FAS demonstrated satisfactory psychometric properties in general samples (Al Tukhaysh, 2014). A higher score indicated a high level of future anxiety. In this study, FAS has acceptable reliability (Cronbach’s α 0.90).

2.4. Data Analysis

Descriptive statistics used to illustrate the sample characteristics. Statistics were calculated for the items such as mean (M), standard deviation (SD), skewness (S), and kurtosis (K). To verify the psychometric properties of the scale, both the classical theory of measurement (CTT) and the item response theory (IRT) were used. CTT was used to verify: 1. The reliability of internal consistency (three indicators were used, Cronbach’s Alpha of 0.80 or higher, Corrected item-total correlation > 0.30, and inter-item correlation 0.15 to 0.50; Clark & Watson, 1995; Field, 2009); 2. The concurrent validity by Pearson Correlation Coefficient between the COVID-19 fear scale and future anxiety and; 3. The exploratory factor analysis (EFA) to verify the factor structure of the scale, using the method of principal axis factoring, with oblimin rotation. Following the EFA, a simultaneous multiple regression analysis (SMR) was performed to predict the fear of COVID-19 by considering the total score on the FCV-19S scale as a dependent variable and the theoretically important demographic variables (gender, age, educational level, marital status, smoking), along with the total score of the future anxiety scale as predictive variables. We used this method other than the regression method as there was a limited number of previous researches on predictors of fear of COVID-19 that could guide the ordering of the predictors in a stepwise multiple regression method (Perz et al., 2020).

The IRT-Rasch Model was used to analyze the in-fit and out-fit mean square and to assess the validity of the items; it should be from (0.5–1.5) to be acceptable. Item and person separation reliability were checked. The items and person separation index should be more than 2.0 to be acceptable. Moreover, the item and person separation reliability values > 0.7 are acceptable. The data was analyzed using SPSS 26.0 and Winsteps.

3. Results

3.1. Participant Characteristics

The number of participants in the study reached 760, with a mean age of 32.5 years (SD ± 10.2); 59.2% males, 40.8% females and 30% actual students. The highest percentage of those participants with a bachelor’s degree was 40.8%. The participants were distributed in all regions of Jordan, from Badia to the city. More than half of them were smokers (63.2%), and 56.6% were singles (Table 1).

3.2. Descriptive Statistics of FCV-19S

M, SD, S, and K values of the scale items are presented in Table 2. The S and K values are within the ± 1.5 range for all items, which indicated their normal distribution.

3.3. Internal Consistency Reliability (ICR) of the FCV-19S

As per CTT, Cronbach’s Alpha reached 0.91, which is a high and appropriate value. The seven items of the FCV-19S obtained a highly suitable corrected item-total correlation of 0.60 to 0.86. The inter-item correlation ranged between 0.26 to 0.82. The mean inter-item correlation was moderate value (0.59) as displayed in Table 3. Considering these three indicators together, the FCV-19S has excellent ICR.
3.4. Exploratory factor analysis (EFA)

The values of the Test of Sphericity and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) were 0.87 ($\chi^2 = 48.2$, $p < 0.001$). This indicates the size of the sample is adequate to perform an exploratory factor analysis (EFA), which was performed using a principal axis factor method with a direct oblimin rotation. It showed the existence of a one-factor solution with an Eigen value...
Table 3. EFA and ICR of FCV-19S

| Item   | Factor loading | Corrected item-total correlation | Inter-item correlation range | α if item deleted |
|--------|----------------|---------------------------------|------------------------------|------------------|
| Item1  | 0.65           | 0.61                            | 0.26–0.63                    | 0.91             |
| Item2  | 0.78           | 0.74                            | 0.40–0.71                    | 0.89             |
| Item3  | 0.75           | 0.72                            | 0.46–0.65                    | 0.90             |
| Item4  | 0.85           | 0.81                            | 0.53–0.67                    | 0.89             |
| Item5  | 0.91           | 0.86                            | 0.59–0.82                    | 0.88             |
| Item6  | 0.83           | 0.78                            | 0.46–0.82                    | 0.89             |
| Item7  | 0.61           | 0.59                            | 0.26–0.65                    | 0.91             |

Table 4. Simultaneous multiple regression (SMR) predicting the fear of COVID-19

| Predictor                  | Unstandardized B | SEB | Standardized β | p-value |
|----------------------------|------------------|-----|----------------|---------|
| Gender a                   | 0.660            | 0.279| 0.044          | 0.018*  |
| Age                        | 0.264            | 0.276| 0.017          | 0.338   |
| Secondary b                | 1.529            | 0.346| 0.089          | 0.000** |
| Technical Diploma b        | 0.336            | 0.434| 0.015          | 0.439   |
| Master, Doctorate c        | −0.474           | 0.357| −0.026         | 0.184   |
| Divorced d                 | −0.538           | 0.411| −0.024         | 0.191   |
| Married c                  | 0.135            | 0.303| 0.008          | 0.655   |
| Smoker d                   | −1.170           | 0.288| −0.076         | 0.000** |
| FAS a                      | 23.298           | 0.518| 0.833          | 0.000** |

*p < 0.05; **p < 0.01

*aMales were the reference group.

*bGraduates were the reference group.

*cSingles were the reference group.

*dSmokers were the reference group.

*The total score of future Anxiety

of 4.21, which explains the 60.2% variance in the scores on the fear of COVID-19 scale. The Scree plot in Figure 1 indicates that none of the other factors have an Eigen value greater than 1. As shown in Table 3, factor loading was high at 0.60, and this result suggests that the Jordanian version of the fear COVID-19 scale has a one-factor solution.

3.5. Simultaneous multiple regression (SMR)

To perform SMR and predict the overall degree of fear of COVID-19, the categorical variables were dummy coded, and the most frequent group was the reference group. The reference groups in the current study were as follows: (1) Males were the reference group for the gender category; (2) People aged 26–45 were that of the age category; (3) People holding a bachelor’s degree were that of the level of education category; (4) Singles were that of the marital status category; and (5) The smokers were the reference group for the smoker/non-smoker category.

As seen in Table 4, four of the predictors were statistically significant. Regarding demographic predictors, females recorded a significantly higher total score of fear of COVID-19 than males (B = 0.660, Standard Error B SEB = 0.279, β = 0.044, p = 0.018). In the education level predictor, participants with a secondary education and below scored significantly higher than graduates for the fear of COVID-19 (B = 1.529, SEB = 0.346, β = 0.089, p = 0.001). Regarding the question “Are you a smoker or a non-smoker?” smokers scored significantly higher than non-smokers (B = −1.170,
SEB = 0.288, β = −0.076, p = 0.001). Finally, the participants who had high levels of future anxiety had significantly high levels of fear of COVID-19 (β = 23.298, SEB = 0.518, β = 0.833, p = 0.001).

3.6. Concurrent Validity
The concurrent validity (Pearson’s coefficient) was supported by the significant correlation with the degree of future anxiety assessed by FAS. There was significant correlation between FCV-19S and FAS (r = 0.87, p < 0.001).
3.7. Item response theory (IRT) Results

According to analysis using IRT, item separation reliability is 0.91, item separation index is 31.4, Person separation reliability is 0.88, and Person separation index is 2.56. All of them were acceptable (Table 5).

The in-fit mean square error (MnSq) values were within the acceptable range of 0.54 to 1.1. The out-fit MnSq values were also within the acceptable range of 0.56 to 1. The DIF value showed no differences across gender or age (Table 6).

3.8. Discussion

The current study presented the evolution of the psychometric properties of the Jordanian version of the COVID-19 fear scale using the CTT and the IRT. The results indicated that the scale has good ICR, as showed by the Alpha Cronbach, inter-item correlation, and corrected item-total correlation. This result is consistent with many other studies that used different national samples (Ahorsu et al., 2020; Perz et al., 2020; Reznik et al., 2020; Winter et al., 2020). The factor loading was statistically significant in this study, a one-dimensional scale, similar to the results of past studies (Ahorsu et al., 2020; Alyami et al., 2020; Sakib et al., 2020; Wakashima et al., 2020). The current study provided additional information about the predictors of the fear of COVID-19 using six different predictors. With regard to gender, different levels of fear of COVID-19 were observed. Females showed higher levels of fear on the COVID-19 scale compared to males. This could be explained by the fact that, during the pandemic, females carried the greatest burden in terms of doing household chores and serving infected family; this could also be due to an emotional reaction towards an external reason such as anxiety and worry about the health of the elderly in the family. This result is similar to the results of previous researches (Ahorsu et al., 2020; Nguyen et al., 2020; Reznik et al., 2020; Sakib et al., 2020) which showed that females had higher levels of fear on the COVID-19 scale. On the other hand, age of the participants of the current study did not associate with different levels of fear of COVID-19, so it did not affect the pattern of response on the scale.

This study also found that participants who have an educational level less than secondary school reported higher levels of fear of COVID-19. This agrees with the result of a previous study by Nguyen et al. (2020), which indicates that students in later school years had lower degrees of fear than those in the first school years. This is explained by the fact that students at higher educational levels have a better knowledge of the disease, medical skills, and prevention measures than middle-and high-school students. Therefore, middle- and high-school students must be protected from fear of COVID-19. Marital status was not associated with different levels of fear of COVID-19. Participants who smoke were more likely to be fearful than non-smokers, and this may be due to their knowledge that the coronavirus attacks a person’s respiratory system significantly, and the infection could lead to death. The concurrent validity was demonstrated by the strong positive correlation between the scores on the FCV-19S scale and the measure of future anxiety FAS. This result was consistent with those obtained from Iranian, Bengali, Arabic, and Japanese verification studies (Ahorsu et al., 2020; Alyami et al., 2020; Sakib et al., 2020; Wakashima et al., 2020) which reported significant positive correlations between depression, anxiety, stress and FCV-19S score (Satici et al., 2020). The considerable positive link found between levels of fear and levels of anxiety and depression suggests that those who have a high level of fear of the Corona virus are more likely to develop these disorders (Soraci et al., 2020). Contagious epidemics provide fertile ground for psychosomatic health problems and negative mental health diseases like depression, anxiety, fear, and phobias to develop (Duncan et al., 2009; Ropeik, 2004; Soraci et al., 2020).

National health campaigns focusing on transmission methods and preventive measures were seen as a challenge that needed to be met. Furthermore, the national health system has enhanced preventive efforts to restrict the development of COVID-19; but, as the disease spreads, strategic public health actions are needed to reduce fear of COVID-19 (Pakpour & Griffiths, 2020; Satici et al., 2020). To prevent the spread of COVID-19, public health interventions such as healthy living (Harper et al., 2020), the requirement of receiving two doses of the vaccine, the mandatory use of masks, hand washing, and the use of alcohol gel should be encouraged. The current study emphasizes the necessity to build online educational programs targeted at giving adequate
mental health support, up-to-date information, and news relevant to COVID-19 in order to improve social distancing (Wang et al., 2020).

Gaining more knowledge can offer assistance in giving data to individuals so that they can perform preventive COVID-19 behaviors to assist levels of fear (Pakpour & Griffiths, 2020). This study has some limitations. The study sample consisted of participants who received the questionnaire electronically from the Jordanian population, and thus the fear assessment, in addition to their seriousness and willingness to participate, could be affected by the bias factor in their response. Also, the findings may not reduce the psychological factor of the pandemic because the data were collected during the emergence of a new vaccine for the virus. Moreover, the results can only be generalized to samples similar to this study’s sample. Future research should use other methods such as longitudinal studies, interviews, case studies. Future research can be conducted to reveal the relationship between the fear of COVID-19 and the desire to take the new vaccine or other psychological variables.

3.9. Conclusion
Our study demonstrates that the Arabic version of FCV-19S among Jordanians is a seven-item scale with acceptable psychometric properties and has a stable unidimensional structure based on the psychological testing findings. The findings revealed that the Arabic version of FCV-19S is an adequate screening scale to identify COVID-19-related distress.

Ethical
Procedures followed in accordance with the ethical standards of the responsible committee on human experimentation and with the Helsinki Declaration.

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Author details
Odeh Murad1
E-mail: odehmurad@bau.edu.jo
ORCID ID: http://orcid.org/0000-0002-1264-1409
Khaled A. Al-Dasseean2
E-mail: kdaasin@bau.edu.jo
ORCID ID: http://orcid.org/0000-0001-6905-884X
Anwar M. Al Neweiri1
E-mail: anneweiri62@gmail.com
Hasan O. Murad4
E-mail: hasan.o.murad@gmail.com
Bataol O. Murad5
E-mail: bataol_murad@yahoo.com
1 Associate. Prof. of Educational Psychology, Al-Balqa Applied University, Al-Shoubak University College Jordan.
2 Assis. Prof. of Educational Psychology, Al-Balqa Applied University, Al-Shoubak University College Jordan.
3 Consultant General and Laparoscopic Surgeon, Jordanian Center for Organ Transplantation, Ministry of Health, Jordan.
4 Teacher of Educational Technology, Ministry of Education, Al-Shoubak Education Directorate, Jordan.
5 Higher Diploma in Education, Al-Balqa Applied University, Al-Shoubak University College, Jordan.

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