Humanistic Perspective

Journal of International Psychological Counseling and Guidance Researches
Uluslararası Psikolojik Danışma ve Rehberlik Araştırmaları Dergisi

e-ISSN: 2687-4229
https://www.dergipark.org.tr/tr/pub/hp
Email: hpeditorluk@gmail.com

DOI:10.47793/hp.1648973 | Review | Derleme | 2025 – Volume:7, Issue:2

COVID-19 Related Fear and Anxiety: A Systematic Review and Meta-Analysis

COVID-19 ile İlişkili Korku ve Kaygı: Sistematik Derleme ve Meta-Analiz

Eyüp Sabır **ERBİÇER**[1] Ahmet **METİN**[2] Sedat **ŞEN**[3]

Received Date: March 01, 2025 **Accepted Date:** June 24, 2025

ABSTRACT

Studies showed that COVID-19-related fear and anxiety were correlated with varying psychological issues such as depressive and anxiety disorder, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), and generalized anxiety disorder. This systematic review and meta-analysis aim to estimate the pooled raw mean of COVID-19-related fear and anxiety. The second purpose of this study is to clarify the role of potential moderators in COVID-19-related fear and anxiety. For these reasons, the studies were searched in various databases (e.g., Google Scholar, PubMed, Web of Science, and SCOPUS). The study's findings revealed that the pooled mean of fear of COVID-19 was 18.96, and the pooled mean of 2.50 was for COVID-19 anxiety. Moderator analyses revealed that culture and continent were significant moderators for COVID-19-related fear; continent and target population for COVID-19-related anxiety. Meta-regression analyses found that none of the continuous moderators (i.e., age and female proportion) were significant predictors of COVID-19-related fear and anxiety.

Keywords: *fear of COVID-19, COVID-19 anxiety, meta-analysis*

Başvuru Tarihi: 01 Mart 2025 **Kabul Tarihi:** 24 Haziran 2025

ÖZ

Çalışmalar, COVID-19 ile ilişkili korku ve kaygının; depresif ve kaygı bozuklukları, obsesif-kompulsif bozukluk (OKB), travma sonrası stres bozukluğu (TSSB) ve yaygın anksiyete bozukluğu gibi çeşitli psikolojik sorunlarla ilişkili olduğunu göstermiştir. Bu sistematik derleme ve meta-analiz çalışması, COVID-19 ile ilişkili korku ve kaygının birleştirilmiş ham ortalamasını tahmin etmeyi amaçlamaktadır. Bu çalışmanın ikinci amacı ise, COVID-19 ile ilişkili korku ve kaygı düzeylerinde potansiyel moderatörlerin rolünü açıklığa kavuşturmaktır. Bu nedenlerle, çalışmalar Google Scholar, PubMed, Web of Science ve SCOPUS gibi çeşitli veri tabanlarında taranmıştır. Çalışmanın bulguları, COVID-19 korkusunun birleştirilmiş ortalamasının 18.96, COVID-19 kaygısının birleştirilmiş ortalamasının ise 2.50 olduğunu ortaya koymuştur. Moderatör analizleri, COVID-19 ile ilişkili korku açısından kültür ve kıtanın; COVID-19 ile ilişkili kaygı açısından ise kıta ve hedef popülasyonun anlamlı moderatörler olduğunu ortaya koymuştur. Meta-regresyon analizleri ise, yaş ve kadın katılımcı oranı gibi sürekli moderatörlerin, COVID-19 ile ilişkili korku ve kaygının anlamlı yordayıcıları olmadığını göstermiştir.

Anahtar Kelimeler: *COVID-19 korkusu, COVID-19 kaygısı, meta-analiz*

Atıf Cite: ERBİÇER, E. S., METİN, A., & ŞEN, S. (2025). COVID-19 ile İlişkili Korku ve Kaygı: Sistematik Derleme ve Meta-Analiz . *Humanistic Perspective, 7* (2), 165-182. https://doi.org/10.47793/hp.1648973

[1] Res. Assist. | Hacettepe University | Ankara | Türkiye | ORCID: 0000-0001-8253-7212 | eyuperbicer@gmail.com

[2] Res. Assist. | Erciyes University | Kayseri | Türkiye | ORCID: 0000-0001-6519-2523

[3] Professor | Harran University | Şanlıurfa | Türkiye | ORCID: 0000-0001-6962-4960

INTRODUCTION

The COVID-19 outbreak led to an increase in psychological issues, such as fear and anxiety related to COVID-19 (Metin et al., 2021; Rehman et al., 2020). The COVID-19-related fear and anxiety were correlated with varying psychological issues such as depression (Erbiçer et al., 2021; Rodríguez-Hidalgo et al., 2021), anxiety (Bakioğlu et al., 2021), obsessive-compulsive disorder (Khosravani et al., 2021a; Khosravani et al., 2021b; Wheaton et al., 2021), PTSD (Kira et al., 2020; Tsur & Abu-Raiya, 2020), and generalized anxiety disorder (Gambin et al., 2020; Nwachukwu et al., 2020). However, studies focusing on the mean of COVID-19-related fear and anxiety have yielded inconsistent results. For instance, Rodriguez-Hidalgo et al. (2021) indicated that the mean of COVID-19-related fear was 14.37, whereas Akbari et al. (2021) found that COVID-19-related fear was 29.91. Additionally, the studies conducted to determine the mean of COVID-19-related anxiety found that the highest and lowest scores were 14.75 and 0.60, respectively (Kurata et al., 2021; van de Venter et al., 2021). Therefore, it would be useful to carry out a systematic review and meta-analysis to shed light on the pooled mean of COVID-19-related fear and anxiety. Based on all these, the primary purpose of the present study is to conduct a systematic review and meta-analysis on COVID-19-related fear and anxiety.

Potential Moderators

Various variables may have affected the mean of COVID-19-related fear and anxiety. The studies included in this meta-analysis were conducted with different age groups (e.g., Nguyen et al., 2020; Camacho et al., 2020; Giordani et al., 2021a; Sharifi et al., 2021; Pegorari et al., 2021; Albery et al., 2021; Huo, 2021). Hence, the average age of the sample was included as a potential moderator. Another potential moderator was the female proportion. Psychological disorders related to fear and anxiety were found to be higher in females than males (Kessler, 2003; Pigott, 1999). A systematic review study revealed that mental health symptoms such as anxiety and stress were more prevalent in females (Afifi, 2007). This may lead to higher levels of COVID-19-related fear and anxiety in females. The studies included in this meta-analysis were carried out with different groups. For example, to estimate COVID-19-related fear and anxiety, the studies included were conducted with different populations such as hospital staff (Gélinas et al., 2021; García-Reyna et al., 2020), teachers (Kukreti et al., 2021), older adults (Mistry et al., 2021; Yadav et al., 2021; Sharifi et al., 2021), and general population (Yalçın et al., 2021; Midorikawa et al., 2021; Montefinese et al., 2021), teenagers (Vu & Bosmans, 2021), parents (Kubb & Foran, 2020; Fard et al., 2021), medical patients (Yurttaş et al., 2021) and clinical patients (Khosravani et al., 2021a). Therefore, the target population was included in this meta-analysis as a potential moderator. Another potential moderator of the meta-analysis was continent. Finally, culture was added as a potential moderator. Individuals in collectivist cultures interact more with both family

members and other members of society than individualistic ones (Shulruf et al., 2007; Singelis et al., 1995) and may experience more fear and anxiety of contagion due to close relationships with family members, friends, or other members of their community (Fincher et al., 2008; Murray et al., 2011). This may lead to differences in COVID-19-related fear and anxiety. Overall, female proportion, age, target population, continent, and culture were considered potential moderators. Based on all these, the second purpose of the current study is to examine the effect of the potential moderators on the mean of COVID-19-related fear and anxiety. For these purposes, the following questions were addressed in the present study:

Research Question 1 (RQ1): What are the pooled means of COVID-19-related fear and anxiety?

Research Question 2 (RQ2): How do the pooled means of COVID-19-related fear and anxiety change as a function of moderators?

METHOD

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Page et al., 2021) was followed in reporting this systematic review and meta-analysis.

Literature Search

Various databases, including SCOPUS, Google Scholar, PubMed, and Web of Science databases, were searched by two authors to identify studies that might be relevant. To estimate the mean of COVID-19-related fear and anxiety, published articles cited "The Fear of COVID-19 Scale" (FCV-19S; Ahorsu et al., 2020) and "Coronavirus Anxiety Scale" (CAS; Lee, 2020) were searched separately in these databases. Additionally, the references of the studies included were examined to identify relevant articles. The FCV-19S was used to estimate the mean of COVID-19-related fear, and the CAS was used to calculate the mean of COVID-19 anxiety.

The following keywords were used in the search for COVID-19-related fear: "COVID-19 Related Fear", "COVID-19 Fear", "Fear of COVID-19", "COVID-19 Fear", and "Fear of COVID-19 Scale"; for COVID-19 related anxiety: "COVID-19 Anxiety Scale", "COVID-19 Anxiety", "Coronavirus Anxiety Scale", and "Coronavirus Anxiety".

The following criteria were used to include the studies in the systematic review and meta-analysis: a) Studies examining COVID-19-related fear or anxiety, b) Publications reporting the mean and standard deviation of the FCV-19S or CAS, c) Quantitative publications, d) Cross-sectional publications, e) Papers published in English, and f) Studies translating the scales (i.e., the FCV-19S and CAS) to different languages. Exclusion criteria: Studies did not use the FCV-19S or CAS, b) studies published in non-English languages, c) Master's or Doctoral theses, d) Longitudinal

or cohort studies, e) Qualitative studies, and f) Articles without the data to estimate the mean of COVID-19-related fear or anxiety. The literature search diagram is shown in Appendix Figure 1.

Screening Tools Used for Outcomes

The Fear of COVID-19 Scale (FCV-19S) was developed and validated by Ahorsu et al. (2020) to assess the fear of coronavirus. The scale was a seven-item unidimensional scale, and each item was rated on a 5-point scale (1= strongly disagree – 5= strongly agree). Higher scores on the FCV-19S indicate a more severe fear of COVID-19. Some of the scale items were as follows: "*My heart races or palpitates when I think about getting coronavirus-19,"* and *"I am afraid of losing my life because of coronavirus*."

Lee (2020) developed the Coronavirus Anxiety Scale (CAS) to assess dysfunctional anxiety associated with the COVID-19 crisis. Each item was rated on a 5-point scale (0= not at all – 4= nearly every day). Higher scores on the CAS indicate a more dysfunctional anxiety-related COVID-19 pandemic. Some scale items were as follows: "*I felt dizzy, lightheaded, or faint when I read or listened to news about the coronavirus,*" and "*I felt paralyzed or frozen when I thought about or was exposed to information about the coronavirus.*"

Quality Assessment and Coding

We used the Quality Assessment Tool for Cross-Sectional Studies (AXIS) to determine the quality of the publications included in the present study (Downes et al., 2016). The assessment tool consisted of 20 items and was coded as Yes "1", No "0" and Unclear/Not Known "0". The scores obtained from the individual studies were higher than 65% for fear of COVID-19 and 70% for COVID-19 anxiety. Two authors (E.S.E. and A.M.) performed quality assessments independently, and the disagreements were resolved by arbitration (third author).

Coding sheets were developed for each outcome (i.e., COVID-19-related fear and anxiety) to facilitate the analysis of the studies included in the meta-analysis. The first author's name, publication year, sample size (*n*), country, continent, target population, the mean age of the sample, female proportion (%), culture, and the percent of quality of studies were entered into the coding sheets. Also, to estimate the pooled mean of the outcomes (i.e., COVID-19-related fear and anxiety), mean and standard deviation (SD) values were entered into the sheets. Two independent authors coded the sheets, and then the sheets were compared to avoid errors in data entry. The interrater agreement rates for continuous moderators were between 89% and 98%. For categorical variables, we computed a series of interrater agreement index (i.e., Kappa) as suggested by Landis and Koch (1977). Kappa values ranged from 0.45 to 0.91, indicating moderately good to very satisfactory interrater agreement. All disagreements between the two raters were resolved before proceeding to the analyses.

Data Analysis

This study used a random-effects meta-analysis model to estimate pooled raw mean scores of fear of COVID-19 and COVID-19 anxiety. Raw means, SDs, and sample sizes were collected from the individual studies to estimate the pooled mean scores for COVID-19-related fear and anxiety. *Q* test and I^2 values were used to assess heterogeneity between the studies included in the meta-analysis (Borenstein et al., 2011).

Analog to the ANOVA and meta-regression analyses were conducted with moderators to detect the possible sources of heterogeneity between the studies. Possible categorical moderators were continent, target population, and culture, and continuous moderators were age and female proportion. Subgroup analyses of categorical moderators (i.e., continent, culture, and target population) were conducted with analog to the ANOVA approach. The association of the mean scores with continuous moderators (i.e., age and female proportion) was examined with multiple and separate meta-regression analyses using a restricted maximum likelihood estimation method (Langan et al., 2015).

This meta-analysis assessed the possibility of publication bias using Rosenthal's fail-safe *N*, Funnel plot, and Egger's regression test (Egger et al., 1997). The calculated Fail-safe *N* value < $5k$ +10 (k = the number of included studies) indicates that the meta-analysis result may be susceptible to publication bias (Rosenthal, 1979). Nonsignificant *p*-values obtained from Egger's regression test indicate the lack of publication bias. In the funnel plot, a symmetrical distribution suggests the lack of publication bias (Borenstein et al., 2011). All analyses were performed using the Comprehensive Meta-Analysis (CMA Version 3.0) software package.

Results

Detailed information about the studies included is presented in Appendix Table 1.

Publication Bias

Before proceeding to the main findings of the meta-analyses, the possibility of publication bias was assessed using three different methods. First, the fail-safe *N* number was calculated to be 2959 and 861 for fear and anxiety, respectively (see Appendix Table 2). These fail-safe numbers were greater than $5k$ +10 and indicated the lack of publication bias. Second, the results of Egger's regression test indicated that publication bias was not statistically significant (p>.05) for COVID-19-related fear and anxiety. In addition, the funnel plots for the standard error vs. raw mean scores demonstrated a weak publication bias for fear and anxiety (see Appendix 1). Overall, we can conclude that publication bias would not be a concern in this study.

Heterogeneity and Meta-Analyses of Raw Means

The main results of the meta-analyses of COVID-19 fear and anxiety are presented in Appendix Table 2. Cochran's Q-statistics for heterogeneity was estimated to be 24,271.36 and 59.08 for fear and anxiety, and were found to be significant. I^2 values were high for fear (99.52%). However, a small I^2 value was calculated for anxiety (32.30%). In the present study, the pooled mean of fear of COVID-19 was found to be 18.96 (95% CI: 18.43–19.50), and the pooled mean of COVID-19 anxiety was found to be 2.50 (95% CI: 1.75–2.25). In addition, the prediction intervals for the pooled means were 12.59–25.33 and 0.55-4.36 for fear of COVID-19 and COVID-19 anxiety, respectively. In addition, forest plots can be examined to see the mean of each study included in this current study (see Appendix 2).

Moderator Analyses

The pooled raw means between different subgroups of three categorical moderators (continent, target population, and culture) were examined using random effects models and presented in Appendix Table 3. The study's findings revealed that there were statistically significant differences in the mean of fear of COVID-19 in terms of continent (Q_B=16.32, p < .01) and culture (Q_B=9.08, p < .05), but there was no a significant difference by target population (Q_B=9.13, p > .05). According to the results of subgroup analyses based on continent, the highest and lowest pooled means of fear of COVID-19 were reported in the studies conducted in Middle East (20.86, 95% CI: 18.72–22.99) and Europe (17.58, 95% CI: 16.96–18.55), respectively. In addition, the pooled raw mean of fear of COVID-19 was higher in collectivist cultures (19.25, 95% CI: 18.70–19.80) than in individualistic orientations (Hofstede et al., 2005).

According to the results of subgroup difference test reported in Appendix Table 3, there were statistically significant differences in the mean of COVID-19 anxiety in terms of continent (Q_B=17.50, p < .01) and target population (Q_B=8.95, p < .05), but there was no a significant difference by culture (Q_B=0.00, p > .05). According to the results of subgroup analyses based on the continent, the highest and lowest pooled means of COVID-19 anxiety were reported in the studies conducted in the Middle East (3.87, 95% CI: 0.78–6.96) and Asia (1.12, 95% CI: 0.88–1.35), respectively. In addition, the pooled raw mean of COVID-19 anxiety was higher in hospital staff (5.35, 95% CI: 1.32–8.97) than in other populations.

The results of multiple meta-regression analyses are presented in Appendix Table 4. As shown in Appendix Table 4, none of the continuous moderators (i.e., sample age and female proportion) significantly predicted fear of COVID-19 and COVID-19 anxiety. In addition, separate meta-regression analyses were conducted with each moderator for fear and anxiety. Individual meta-regression analyses showed that none of the moderators was a statistically significant

predictor of the mean fear of COVID-19. Individual meta-regression analyses with anxiety studies demonstrated that only the female proportion was found to be a significant predictor (b= 0.041, p<.01).

DISCUSSION

The current meta-analysis showed that the pooled means were 18.96 and 2.50 for COVID-19-related fear and COVID-19-related anxiety, respectively. The relevant literature revealed that the fear of COVID-19 was positively correlated with depression, anxiety, and stress (Erbiçer et al., 2021). Similar findings were also found in the studies for COVID-19 anxiety (e.g., Padovan-Neto, 2021; Skalski et al., 2021). In other words, as the level of COVID-19 anxiety increases, mental health issues also increase.

The moderator analyses revealed that COVID-19-related fear was higher in collectivistic orientation than in individualistic orientation. As collectivist cultures are characterized by higher interaction and interdependence, such as close relationships with family members, friends, country, ethnic group, or other members of the community (Chun et al., 2006; Shulruf et al., 2007; Singelis et al., 1995), individuals in collectivist cultures due to the higher risk of infecting others and infection may feel more COVID-19 related anxiety and fear. Germani et al. (2020) found that collectivistic dimensions were positively correlated with COVID-19-related anxiety and stress. Another study revealed that as collectivist dimensions increase, COVID-19 anxiety also increases (Shekriladze et al., 2021). Moreover, Khalifeh et al. (2021) showed that those with higher collectivism were more likely to have COVID-19-related fear. Additionally, the highest and lowest scores of COVID-19-related fear and anxiety were in the Middle East and European samples, respectively. Middle East countries (e.g., Saudi Arabia, UAE, Egypt, Jordan, and Lebanon) were characterized by Arab culture (Hofstede et al., 2005). This culture, which is generally based on a collectivist orientation expecting to ask for help from family in any difficulties or troubles, is centered on the belief that problems should be resolved within the family and emphasizes a stronger commitment to their organization (Fakhr El-Islam, 2008; Hofstede et al., 2005; Schwartz & Bilsky, 1990). Interconnection and interdependence, which are associated with a higher risk of infection, may have caused the scores of COVID-19-related fear and anxiety to be high in these samples. As consistent with our result, Kimhi et al. (2020), comparing Arab and Jewish samples, revealed that Arab respondents expressed higher levels of COVID-19 distress and a sense of danger. Additionally, the highest and lowest COVID-19-related anxiety scores were in hospital staff and general population samples, respectively. Considering situations such as at the forefront in the fight against the COVID-19 outbreak, close contact with infected or hospitalized patients, inadequate protective equipment, and long working hours (Alnazly et al., 2021; Couto et al., 2021; García-Reyna et al., 2020; Majeed et al., 2021; Mahmoud et al., 2021; Spoorthy et al., 2020; van de

Venter et al., 2021; Xiaoming et al., 2020), the scores of COVID-19-related anxiety are expected to be the highest for hospital staff.

The results of meta-regression analyses also revealed that the female proportion and age were not significant predictors for the scores of COVID-19-related fear and anxiety. We also found no significant difference by culture for COVID-19-related anxiety and by target population for COVID-19-related fear. The source of heterogeneity may result from different variables or reasons in this current study. A meta-analysis on this issue stated that heterogeneity might arise from the quality of studies, migration, or economic growth (Erbiçer et al., 2021).

Limitations

This current study has some limitations. First, we excluded some studies that met our inclusion criteria because of insufficient data to calculate the mean and SD. To handle this issue, we sent e-mails to the authors who carried out the relevant studies, but we did not get a reply to the e-mails. Similarly, we excluded some studies that met our criteria as they did not specify whether they reported findings based on average or total scores. Second, we only included the studies published in English; the studies in other languages (e.g., French, German, Spanish, Arabic) were not included. Third, to assess the average mean of COVID-19-related fear and anxiety, we solely used the FCV-19S (Ahorsu et al., 2020) and CAS (Lee, 2020). Other screening tools, which assess fear, distress, and dysfunctional anxiety associated with the COVID-19 crisis, were not included in the systematic review and meta-analysis. Finally, data collection dates could have been a possible moderator. However, the date interval of the individual studies was unclear. The data collection time, therefore, was not considered as a potential moderator.

Conclusion

This systematic review and meta-analysis determined the pooled mean of COVID-19-related fear and anxiety. Although the current study has a few limitations, results revealed that COVID-19-related fear and anxiety were high but not excessive based on cut-off studies conducted for the FCV-19S (Ahorsu et al., 2020) and CAS (Lee, 2020). In addition, we found additional evidence of higher COVID-19-related fear in collectivistic orientation and the Middle East, and higher COVID-19-related anxiety in hospital staff and the Middle East.

REFERENCES

*References for the studies included in the meta-analysis are marked with asterisks.

*Abroshan, H., Devos, J., Poels, G., & Laermans, E. (2021). COVID-19 and phishing: Effects of human emotions, behavior, and demographics on the success of phishing attempts during the pandemic. *IEEE Access*, *9*, 121916-121929. https://doi.org/10.1109/ACCESS.2021.3109091

*Abuhammad, S., Alzoubi, K. H., & Khabour, O. (2021). Fear of COVID-19 and stigmatization towards infected people among Jordanian people. *International Journal of Clinical Practice*, *75*(4), e13899. https://doi.org/10.1111/ijcp.13899

Afifi M. (2007). Gender differences in mental health. *Singapore Medical Journal*, *48*(5), 385–391.

Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The Fear of COVID-19 Scale: Development and initial validation. *International Journal of Mental Health and Addiction*, 1–9. https://doi.org/10.1007/s11469-020-00270-8

*Akbari, M., Spada, M. M., Nikčević, A. V., & Zamani, E. (2021). The relationship between fear of COVID-19 and health anxiety among families with COVID-19 infected: The mediating role of metacognitions, intolerance of uncertainty and emotion regulation. *Clinical Psychology & Psychotherapy*, *28*(6), 1354–1366. https://doi.org/10.1002/cpp.2628

*Aksoy, A., Abiç, A., Değirmenci, F., & Vefikulaçay-Yılmaz, D. (2021). The relationship between quality of life and fear of Turkish individuals during the COVID-19 pandemic: A cross-sectional study. *Archives of Psychiatric Nursing. 35*(5), 472-478. https://doi.org/10.1016/j.apnu.2021.06.003

*Albery, I. P., Spada, M. M., & Nikčević, A. V. (2021). The COVID-19 anxiety syndrome and selective attentional bias towards COVID-19-related stimuli in UK residents during the 2020–2021 pandemic. *Clinical Psychology & Psychotherapy*, *28*(6), 1367-1378. https://doi.org/10.1002/cpp.2639

*Alharbi, T. A., AlQurashi, A., Mahmud, I., Alharbi, R. J., Islam, S. M. S., Almustanyir, S., ... & Rahman, M. A. (2021). Psychological distress, fear, and coping strategies among citizens and residents in Saudi Arabia during the COVID-19 pandemic. https://doi.org/10.21203/rs.3.rs-887072/v1

*Ali, M., Uddin, Z., Banik, P. C., Hegazy, F. A., Zaman, S., Ambia, A., Siddique, M., Islam, R., Khanam, F., Bahalul, S. M., Sharker, M. A., Hossain, F., & Ahsan, G. U. (2021). Knowledge, attitude, practice, and Fear of COVID-19: An online-based cross-cultural study. *International Journal of Mental Health and Addiction*, 1–16. Advance online publication. https://doi.org/10.1007/s11469-021-00638-4

*Alnazly, E., Khraisat, O. M., Al-Bashaireh, A. M., & Bryant, C. L. (2021). Anxiety, depression, stress, fear and social support during COVID-19 pandemic among Jordanian healthcare workers. *PloS One*, *16*(3), e0247679. https://doi.org/10.1371/journal.pone.0247679

*Alothman, S. A., Alghannam, A. F., Almasud, A. A., Altalhi, A. S., & Al-Hazzaa, H. M. (2021). Lifestyle behaviors trend and their relationship with fear level of COVID-19: Cross-sectional study in Saudi Arabia. *PloS One*, *16*(10), e0257904. https://doi.org/10.1371/journal.pone.0257904

*Al-Shannaq, Y., Mohammad, A. A., & Khader, Y. (2021). Psychometric properties of the Arabic version of the Fear of COVID-19 Scale (FCV-19S) among Jordanian adults. *International Journal of Mental Health and Addiction*, 1-14. https://doi.org/10.1007/s11469-021-00574-3

*Alshehry, A. S., Cruz, J. P., Alquwez, N., Alsharari, A. F., Tork, H., Almazan, J. U., Alshammari, F., Alabdulaziz, H., Alsolami, F., Tumala, R. B., Al Thobaity, A., Alqahtani, F. M., & Balay-Odao, E. (2022). Predictors of nursing students' intention to receive COVID-19 vaccination: A

multi-university study in Saudi Arabia. *Journal of Advanced Nursing*, *78*(2), 446–457. https://doi.org/10.1111/jan.15002

*Altınayak, S. Ö., & Erkek, Z. Y. Comparison of individuals' fear of COVID-19 pandemic and perceived control in Turkey. *Journal of Contemporary Medicine*, *11*(6). https://doi.org/10.16899/jcm.940872

*Aluh, D. O., Mosanya, A. U., Onuoha, C. L., Anosike, C., & Onuigbo, E. B. (2021). An assessment of anxiety towards COVID-19 among Nigerian general population using the Fear of COVID-19 Scale. *Archives of Psychiatry and Psychotherapy*, *1*, 36-43. https://doi.org/10.12740/APP/129705

*Antonio, M. T. L., & Elizabeth, V. A. C. (2021). Transcultural adaptation and validation of the Fear of COVID-19 Scale into Mexican-Spanish. *Medical & Clinical Research 6*(5), 512-515.

*Arslan, G., Yıldırım, M., & Zangeneh, M. (2021). Coronavirus anxiety and psychological adjustment in college students: Exploring the role of college belongingness and social media addiction. *International Journal of Mental Health and Addiction.* https://doi.org/10.1007/s11469-020-00460-4

*Asgari Ghoncheh, K., Liu, C. H., Lin, C. Y., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2021). Fear of COVID-19 and religious coping mediate the associations between religiosity and distress among older adults. *Health Promotion Perspectives*, *11*(3), 316–322. https://doi.org/10.34172/hpp.2021.40

*Ashoor, M. M., Almulhem, N. J., AlMubarak, Z. A., Alrahim, A. A., Alshammari, S. M., Alzahrani, F. S., ... & Alardhi, A. (2021). The psychological impact of the COVID-19 pandemic on otolaryngologists: Should we be concerned?. *Laryngoscope Investigative Otolaryngology, 6,* 576-585. https://doi.org/10.1002/lio2.556

*Aslam, N., Shafique, K., & Ahmed, A. (2021). Exploring the impact of COVID-19-related fear, obsessions, anxiety and stress on psychological wellbeing among adults in Pakistan. *The Journal of Mental Health Training, Education and Practice*, *16*(4), 313-321. https://doi.org/10.1108/JMHTEP-10-2020-0074

*Aslan, S., & Dinç, M. (2021). Examining the relationship between nurses' fear levels and insomnia during the COVID-19 pandemic in Turkey. *Perspectives in Psychiatric Care*, *58*(1), 54–60. https://doi.org/10.1111/ppc.12927

*Ayandele, O., Ramos-Vera, C. A., Iorfa, S. K., Chovwen, C. O., & Olapegba, P. O. (2021). Exploring the complex pathways between the fear of COVID-19 and preventive health behavior among Nigerians: Mediation and moderation analyses. *The American Journal of Tropical Medicine and Hygiene*, *105*(3), 701–707. https://doi.org/10.4269/ajtmh.20-0994

*Aydın, A., Kulakaç, N., & Aydın Sayılan, A. (2021). The effect of COVID-19 anxiety levels of healthcare professionals on the quality of working life and related factors. *International Journal of Clinical Practice*, *75*(12), e14889. https://doi.org/10.1111/ijcp.14889

*Aygör, H., & Çayır, A. (2021). Determining the predictive relationship between fear of coronavirus and compliance with isolation precautions in nurses. *International Journal of Health Services Research and Policy*, *6*(2), 200-211. https://doi.org/10.33457/ijhsrp. 877614

*Bakioğlu, F., Korkmaz, O., & Ercan, H. (2021). Fear of COVID-19 and positivity: Mediating role of intolerance of uncertainty, depression, anxiety, and stress. *International Journal of Mental Health and Addiction* (19), 2369–2382. https://doi.org/10.1007/s11469-020-00331-y

*Barbosa-Camacho, F. J., García-Reyna, B., Cervantes-Cardona, G. A., Cervantes-Pérez, E., Chavarria-Avila, E., Pintor-Belmontes, K. J., ... & Cervantes-Guevara, G. (2020). Comparison of fear of COVID-19 in medical and nonmedical personnel in a public hospital in Mexico. https://doi.org/10.21203/rs.3.rs-37662/v1

*Barua, L., Zaman, M. S., Omi, F. R., & Faruque, M. (2021). Psychological burden of the COVID-19 pandemic and its associated factors among frontline doctors of Bangladesh: a cross-sectional study. *F1000Research, 9*, 1304. https://doi.org/10.12688/f1000research.27189.3

*Belen, H. (2021). The impacts of propensity to worry and fear of COVID-19 on mental health of university students. *International Journal of Psychology and Educational Studies, 8*(Special Issue), 57-66. https://dx.doi.org/10.52380/ijpes.2021.8.4.591

*Bharatharaj, J., Alyami, M., Henning, M. A., Alyami, H., & Krägeloh, C. U. (2021). Tamil version of the Fear of COVID-19 Scale. *International Journal of Mental Health and Addiction*, 1–12. https://doi.org/10.1007/s11469-021-00525-y

*Bhattacharya, D., Rai, A. K., Singh, N. K., Koushal, V., Mahajan, S. S., & Mahajan, P. (2021). Psychological impact of COVID-19 on mental health professionals working in different tertiary level healthcare setups of India. *Journal of Advanced Medical and Dental Sciences Research*, *9*(4), 1-8. https://doi.org/10.21276/jamdsr

Borenstein, M., Hedges, L. V., Higgins, J. P., & Rothstein, H. R. (2011). *Introduction to meta-analysis*. United Kingdom: John Wiley & Sons.

*Broche-Pérez, Y., Fernández-Fleites, Z., Jiménez-Puig, E., Fernández-Castillo, E., & Rodríguez-Martin, B. C. (2020). Gender and fear of covid-19 in a Cuban population sample. *International Journal of Mental Health and Addiction.* Advance online publication. https://doi.org/10.1007/s11469-020-00343-8

*Can, S. Y., & Bayar, B. D. (2021). Determining levels of fear of COVID-19 in 112 healthcare professionals. *Hastane Öncesi Dergisi*, *6*(2), 175-185.

*Cavalheiro, F., & Sticca, M. G. (2020). Adaptation and validation of the Brazilian version of the Fear of COVID-19 Scale. *International Journal of Mental Health and Addiction*, 1–9. Advance online publication. https://doi.org/10.1007/s11469-020-00415-9

*Cervantes-Guevara, G., Maciel-Saldierna, M., Elizondo-Hernández, E., Cervantes-Pérez, L. A., Cervantes-Cardona, G. A., García-Reyna, B., Ibarrola-Peña, J. C., Almanza-Mena, Y. L., Barbosa-Camacho, F. J., Fuentes-Orozco, C., Chejfec-Ciociano, J. M., Guzmán-Barba, J. A., Flores-Becerril, P., Reyes-Elizalde, E. A., & González-Ojeda, A. (2021). Fear of COVID-19 in high school personnel: A survey study in Western Mexico. *International Journal of Mental Health and Addiction*, 1–8. Advance online publication. https://doi.org/10.1007/s11469-020-00473-z

*Chen, J. H., Tong, K. K., Su, X., Yu, E. W., & Wu, A. (2021). Measuring COVID-19 related anxiety and obsession: Validation of the Coronavirus Anxiety Scale and the obsession with COVID-19 Scale in a probability Chinese sample. *Journal of Affective Disorders*, *295*, 1131–1137. https://doi.org/10.1016/j.jad.2021.08.104

*Chodkiewicz, J., & Gola, M. (2021). Fear of COVID-19 and death anxiety: Polish adaptations of scales. *Advances in Psychiatry and Neurology/Postępy Psychiatrii i Neurologii*, *30*(2), 61-72. https://doi.org/10.5114/ppn.2021.108471

Chun, C. A., Moos, R. H., & Cronkite, R. C. (2006). Culture: A fundamental context for the stress and coping paradigm. In *Handbook of multicultural perspectives on stress and coping*. Springer, Boston.

*Couto, R. N., Medeiros, E. D., Souza, A. B. C., Silva, P. G. N., Guimarães, C. L. C., & Fonseca, P. N. (2021). Healthcare professionals in COVID-19: Safety, fear, and intention to leave. *Psicologia: Teoria e Prática*, *23*(1), 1–18. https://doi.org/10.5935/1980-6906/ePTPC1913664

*Curtis, A. F., Rodgers, M., Miller, M. B., & McCrae, C. S. (2022). Impact of sex on COVID-19 media exposure, anxiety, perceived risk, and severity in middle-aged and older adults. *Journal of Aging and Health*, *34*(1), 51–59. https://doi.org/10.1177/08982643211025383

*De los Santos, J. A. A., & Labrague, L. J. (2021). The impact of fear of COVID-19 on job stress, and turnover intentions of frontline nurses in the community: A cross-sectional study in the Philippines. *Traumatology, 27*(1), 52–59. https://doi.org/10.1037/trm0000294

*De Los Santos, J., Labrague, L. J., & Falguera, C. C. (2022). Fear of COVID-19, poor quality of sleep, irritability, and intention to quit school among nursing students: A cross-sectional study. *Perspectives in Psychiatric Care*, *58*(1), 71–78. https://doi.org/10.1111/ppc.12781

*Deniz Günaydin H. (2021). Impacts of personality on job performance through COVID-19 fear and intention to quit. *Psychological Reports*, *124*(6), 2739–2760. https://doi.org/10.1177/00332941211040433

*Deniz M. E. (2021). Self-compassion, intolerance of uncertainty, fear of COVID-19, and wellbeing: A serial mediation investigation. *Personality and Individual Differences*, *177*, 110824. https://doi.org/10.1016/j.paid.2021.110824

*Dirlik, E. M., Akcaoğlu, M. Ö., & Külekçi, E. Adaptation of the Coronavirus Anxiety Scale in Turkish for the higher education context: A validity and reliability study. *Bartın University Journal of Faculty of Education*, *10*(2), 430-444. https://doi.org/10.1016/buefad.895122

*Doğan, R., Kaplan Serin, E., & Bağci, N. (2021). Fear of COVID 19 and social effects in liver transplant patients. *Transplant Immunology*, *69*, 101479. https://doi.org/10.1016/j.trim.2021.101479

*Doshi, D., Karunakar, P., Sukhabogi, J. R., Prasanna, J. S., & Mahajan, S. V. (2020). Assessing coronavirus fear in indian population using the fear of covid-19 scale. *International Journal of Mental Health and Addiction.* Advance online publication. https://doi.org/10.1007/s11469-020-00332-x

Downes, M. J., Brennan, M. L., Williams, H. C., & Dean, R. S. (2016). Development of a critical appraisal tool to assess the quality of cross-sectional studies (AXIS). *BMJ Open, 6*(12), e011458. https://doi.org/10.1136/bmjopen-2016-011458.

Egger, M., Smith, G. D., Schneider, M., and Minder, C. J. B. (1997). Bias in meta-analysis detected by a simple, graphical test. *BMJ.* 315, 629–634.

*Enea, V., Candel, O. S., Zancu, S. A., Scrumeda, A., Bărbuşelu, M., Largu, A. M., & Manciuc, C. (2021). Death anxiety and burnout in intensive care unit specialists facing the COVID-19 outbreak: The mediating role of obsession with COVID-19 and coronaphobia. *Death Studies*, 1–10. Advance online publication. https://doi.org/10.1080/07481187.2021.1928331

Erbiçer, E. S., Metin, A., Çetinkaya, A., & Şen, S. (2021). The Relationship between fear of COVID-19 and depression, anxiety, and stress: A meta-analysis. *European Psychologist 26*(4). 323-333. https://doi.org/10.1027/1016-9040/a000464

*Ercan, S., Ahsen, Oğul., Küçük, F. H., & Çetin, C. (2021). Fear of coronavirus, emotional eating behaviors, and physical activity levels during the coronavirus pandemic in individuals over 65 years of age. *Experimental and Applied Medical Science*, *2*(2), 154-163. https://doi.org/10.46871/eams.2021.19

*Eşkut, N., Ceyla, A. T. A. Ç., Köskderelioğlu, A., & Bilgin, Y. Ö. Ü. (2021). Evaluation of corona virus disease-19 related fear and anxiety in patients admitted to neurology outpatient clinic. *Osmangazi Tıp Dergisi*. https://doi.org/10.20515/otd.948805

*Evren, C., Evren, B., Dalbudak, E., Topcu, M., & Kutlu, N. (2020). Measuring anxiety related to COVID-19: A Turkish validation study of the Coronavirus Anxiety Scale. *Death Studies*, 1–7. Advance online publication. https://doi.org/10.1080/07481187.2020.1774969

Fakhr El-Islam, M. (2008). Arab culture and mental health care. *Transcultural Psychiatry*, *45*(4), 671-682.

*Faramawy, M. A. E. A., & Abd El Kader, A. I. (2021). COVID-19 anxiety and organizational commitment among front-line nurses: Perceived role of nurse managers' caring behavior. *Nursing Practice Today, 9*(1), 37-45. https://doi.org/10.18502/npt.v9i1.7328

*Fard, A. S., Bakhtiari, M., Eslami, N., & Arani, A. M. (2021). Quality of life in pediatric with asthma during the COVID-19 pandemic: Moderating role of coronavirus-related anxiety in children and mothers. *Medical Science*, 1691-1698.

Fincher, C. L., Thornhill, R., Murray, D. R., & Schaller, M. (2008). Pathogen prevalence predicts human cross-cultural variability in individualism/collectivism. *Proceedings. Biological Sciences*, *275*(1640), 1279–1285. https://doi.org/10.1098/rspb.2008.0094.

*Flora, K., Georgiadou, T., Megari, K., Grigoropoulos, I., & Chasiotis, V. (2021). Resilience, fear of COVID-19 and their relationship with cognitive functioning and mood: a study on the administrative staff of the University of Western Macedonia, Greece. *Journal of Ideas in Health*, *4*(Special3), 458-565. https://doi.org/10.47108/jidhealth

Gambin, M., Sękowski, M., Woźniak-Prus, M., Wnuk, A., Oleksy, T., Cudo, A., Hansen, K., Huflejt-Łukasik, M., Kubicka, K., Łyś, A. E., Gorgol, J., Holas, P., Kmita, G., Łojek, E., & Maison, D. (2021). Generalized anxiety and depressive symptoms in various age groups during the COVID-19 lockdown in Poland. Specific predictors and differences in symptoms severity. *Comprehensive Psychiatry*, *105*, https://doi.org/10.1016/j.comppsych.2020.152222

*García-Reyna, B., Castillo-García, G. D., Barbosa-Camacho, F. J., Cervantes-Cardona, G. A., Cervantes-Pérez, E., Torres-Mendoza, B. M., ... & Cervantes-Guevara, G. (2020). Fear of COVID-19 Scale for hospital staff in regional hospitals in Mexico: A survey study. https://doi.org/10.21203/rs.3.rs-34065/v1

*Gasparro, R., Scandurra, C., Maldonato, N. M., Dolce, P., Bochicchio, V., Valletta, A., Sammartino, G., Sammartino, P., Mariniello, M., di Lauro, A. E., & Marenzi, G. (2020). Perceived job insecurity and depressive symptoms among Italian dentists: The moderating role of fear of COVID-19. *International Journal of Environmental Research and Public Health*, *17*(15), 5338. https://doi.org/10.3390/ijerph17155338

*Gélinas, C., Maheu, C., Lavoie-Tremblay, M., Richard-Lalonde, M., Gallani, M., Gosselin, É., ... & Côté, J. (2021). Translation of the Fear of COVID-19 Scale into French-Canadian and English-Canadian and Validation in the Nursing Staff of Quebec. *Science of Nursing and Health Practices/Science infirmière et pratiques en santé*, *4*(1), 1-23. https://doi.org/10.7202/1077985ar

*Gerçeker, G. Ö., Özdemir, E. Z., Özdemir, B., & Bektaş, M. (2021). Development of the parental attitude scale-protecting children during COVID-19 and the relationship between parental attitudes and fear of COVID-19. *Journal of Pediatric Nursing*, S0882-5963(21)00275-X. Advance online publication. https://doi.org/10.1016/j.pedn.2021.09.007

Germani, A., Buratta, L., Delvecchio, E., & Mazzeschi, C. (2020). Emerging adults and COVID-19: the role of individualism-collectivism on perceived risks and psychological maladjustment. *International Journal of Environmental Research and Public health*, *17*(10), 3497. https://doi.org/10.3390/ijerph17103497.

*Ghaderi, E., Mahmoodi, H., Sharifi Saqqezi, P., Ghanei Gheshlagh, R., Moradi, G., Shokri, A., Piroozi, B., Mohamadi Bolbanabad, A., & Ahmadi, A. (2021). Knowledge, attitudes, practices and fear of COVID-19 among Iranians: A quick online survey. *Health & Social Care in the Community*, Advance online publication. https://doi.org/10.1111/hsc.13382

*Giordani, R. C., Giolo, S. R., Muhl, C., & Zanoni da Silva, M. (2021). Psychometric evaluation of the Portuguese version of the FCV-19 scale and assessment of fear of COVID-19 in a Southern

Brazilian population. *Journal of Human Behavior in the Social Environment*, *31*(1-4), 145-153. https://doi.org/10.1080/10911359.2020.1854142

Godoy, L. D., Falcoski, R., Incrocci, R. M., Versuti, F. M., & Padovan-Neto, F. E. (2021). The Psychological Impact of the COVID-19 Pandemic in Remote Learning in Higher Education. *Education Sciences*, *11*(9), 473. https://doi.org/10.3390/educsci11090473

*Golabi, F., Aghdam, M. B. A., Mazraehshadi, M. M. H., & Akbarian, H. (2021). Relationship between quality of life and fear of COVID-19 in patients with myocardial infarction (Case Study: Shahid Madani Cardiac Hospital, Tabriz, Iran). https://doi.org/10.21203/rs.3.rs-942305/v1

*Gozpinar, N., Cakiroglu, S., Kalinii, E. M., Ertas, E., & Gormez, V. (2021). Turkish Version of the Fear of COVID-19 Scale: Validity and reliability study for children and adolescents. *Dusunen Adam*, *34*(1), 32-40. https://doi.org/10.14744/DAJPNS.2021.00118

*Grande, M., & Doyle-Baker, P. (2021). Fear of COVID-19 effects on university student's health behaviours: The FRESH study. *International Journal of Kinesiology and Sports Science*, *9*(3), 52-59. http://dx.doi.org/10.7575/aiac.ijkss.v.9n.1p.52

*Green, Z. A., Noor, U., Ahmed, F., & Himayat, L. (2021). Validation of the Fear of COVID-19 Scale in a sample of Pakistan's university students and future directions. *Psychological Reports*, 332941211016754. Advance online publication. https://doi.org/10.1177/00332941211016754

*Gritsenko, V., Skugarevsky, O., Konstantinov, V., Khamenka, N., Marinova, T., Reznik, A., & Isralowitz, R. (2020). COVID 19 fear, stress, anxiety, and substance use among Russian and Belarusian university students. *International Journal of Mental Health and Addiction*, 1–7. Advance online publication. https://doi.org/10.1007/s11469-020-00330-z

*Günaydın H. D. (2021). The impact of social problem skills on academic motivation by means of Covid-19 fear. *Current Psychology*, 1–10. https://doi.org/10.1007/s12144-021-01665-z

*Gundogan, S. (2021). The mediator role of the fear of COVID-19 in the relationship between psychological resilience and life satisfaction. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues.* https://doi.org/10.1007/s12144-021-01525-w

*Haddad, C., Sacre, H., Malhab, S. B., Malaeb, D., Saadeh, D., Abou Tayeh, C., & Salameh, P. (2021). A cross-sectional study of COVID-19-related bullying in a sample of Lebanese adults: Scale validation, correlates, and mediating effect of fear and anxiety. https://doi.org/10.21203/rs.3.rs-389588/v1

*Haktanir, A., Seki, T., & Dilmaç, B. (2020). Adaptation and evaluation of Turkish version of the fear of COVID-19 Scale. *Death Studies*, 1–9. https://doi.org/10.1080/07481187.2020.1773026

*Hasan, M., Maliha, Z., Rahman, A., & Mamun, M. A. (2021). Insomnia in Bangladeshi young adults during the COVID-19 pandemic: The role of behavioral factors, COVID-19 risk and fear, and mental health issues. *Sleep and Vigilance*, 1–8. https://doi.org/10.1007/s41782-021-00161-5

*Ho, J., & Moscovitch, D. A. (2021). The moderating effects of reported pre-pandemic social anxiety, symptom impairment, and current stressors on mental health and affiliative adjustment during the first wave of the COVID-19 pandemic. *Anxiety, Stress, and Coping*, 1–15. Advance online publication. https://doi.org/10.1080/10615806.2021.1946518

Hofstede, G., Hofstede, G. J., & Minkov, M. (2005). *Cultures and organizations: Software of the mind.* New York: Mcgraw-hill.

*Hwang, K. S., Choi, H. J., Yang, C. M., Hong, J., Lee, H. J., Park, M. C., Jang, S. H., & Lee, S. Y. (2021). The Korean Version of Fear of COVID-19 Scale: Psychometric Validation in the Korean Population. *Psychiatry Investigation*, *18*(4), 332–339. https://doi.org/10.30773/pi.2020.0420

*Ilktac, H. Y., Savcı, C., & Akıncı, A. C. (2021). Nutritional behavior during COVID-19 pandemic: The Effect of fear and sleep quality on emotional eating. https://doi.org/10.21203/rs.3.rs-649450/v1

*Izhar, R., Husain, S., Tahir, M. A., Husain, S., Hussain, S., & Talha, S. (2021). Fear of COVID-19 scale: Psychometric characteristics, reliability, validity and factors predictive of fear in the Pakistani population. *International Journal of Mental Health*, 1-7. https://doi.org/10.1080/00207411.2021.1977574

*Kakodkar, P., Kale, S., Bhonde, R., & Pawar, N. J. (2021). Fear of COVID-19 and its impact on quality of life during the lockdown situation among the teaching faculty of a health university in India. *Medical Journal of Dr. DY Patil Vidyapeeth*, *14*(5), 502.

*Kameg, B. N., Fradkin, D., Lee, H., & Mitchell, A. (2021). Mental wellness among psychiatric-mental health nurses during the COVID-19 pandemic. *Archives of Psychiatric Nursing*, *35*, 401-406. https://doi.org/10.1016/j.apnu.2021.05.003

*Karadem, F. B., Demirdaş, A., Işık, Ü., & Kılıç, F. (2021). Investigation of the psychiatric factors that determine the fear of COVID-19 in healthcare workers and hospital staff in a university hospital in Turkey. *Journal of Community Psychology*, Advance online publication. https://doi.org/10.1002/jcop.22657

*Karahan, S., Agadayi, E., & Yilmaz, I. G. (2021). Problems experienced by family physicians in sivas during the pandemic period and its relationship with COVID-19 fear. *Eurasian Journal of Family Medicine*, *10*(2), 74-83. https://doi.org/10.33880/ejfm.2021100205

*Karataş, Z., Uzun, K., & Tagay, Ö. (2021). Relationships between the life satisfaction, meaning in life, hope and COVID-19 fear for Turkish adults during the COVID-19 outbreak. *Frontiers in Psychology*, *12*, 633384. https://doi.org/10.3389/fpsyg.2021.633384

*Karawekpanyawong, N., Likhitsathian, S., Juntasopeepun, P., Reznik, A., Srisurapanont, M., & Isralowitz, R. (2021). Thai medical and nursing students: COVID-19 fear associated with mental health and substance use. *Journal of Loss and Trauma*, 1-4. https://doi.org/10.1080/15325024.2021.1963060

*Kardaş, F. (2021). The fear of COVID-19 raises the level of depression, anxiety and stress through the mediating role of intolerance of uncertainty. *Studia Psychologica*, *63*(3), 291-306. https://doi.org/10.31577/sp.2021.03.828

*Kaya, S., Dünder, E., Çakıroglu, F. P., & Uzdil, Z. (2020). Adaptation of the fear of 2019 coronavirus disease (COVID-19) scale to Turkish culture: a validity and reliability study. *Journal of Cognitive-Behavioral Psychotherapy Research, 10*(1), 40-45. https://doi.org/10.5455/JCBPR.104890

*Kayis, A. R., Satici, B., Deniz, M. E., Satici, S. A., & Griffiths, M. D. (2021). Fear of COVID-19, loneliness, smartphone addiction, and mental wellbeing among the turkish general population: A serial mediation model. *Behaviour & Information Technology.* Advance online publication. https://doi.org/10.1080/0144929X.2021.1933181

Kessler, R. C. (2003). Epidemiology of women and depression. *Journal of Affective Disorders, 74*(1), 5–13. https://doi.org/10.1016/S0165-0327(02)00426-3

Khalifeh, L., Vrabec, A., Julian, K., Losee, J., & Zhao, S. (2021). Examining the relationships between individualism, collectivism, perceived vulnerability, and mental and behavioral responses to the COVID-19 pandemic. *PsyArXiv,* https://doi.org/10.31234/osf.io/8wp4k

Khosravani, V., Aardema, F., Samimi Ardestani, S. M., & Sharifi Bastan, F. (2021b). The impact of the coronavirus pandemic on specific symptom dimensions and severity in OCD: A comparison before and during COVID-19 in the context of stress responses. *Journal of*

Obsessive-compulsive and Related Ddisorders, *29*, 100626. https://doi.org/10.1016/j.jocrd.2021.100626

Khosravani, V., Asmundson, G., Taylor, S., Sharifi Bastan, F., & Samimi Ardestani, S. M. (2021a). The Persian COVID stress scales (Persian-CSS) and COVID-19-related stress reactions in patients with obsessive-compulsive and anxiety disorders. *Journal of Obsessive-compulsive and Related Disorders*, *28*, 100615. https://doi.org/10.1016/j.jocrd.2020.100615

Kimhi, S., Eshel, Y., Marciano, H., & Adini, B. (2020). Distress and resilience in the days of COVID-19: Comparing two ethnicities. *International Journal of Environmental Research and Public Health*, *17*(11), 3956. https://doi.org/10.3390/ijerph17113956.

*Kubb, C., & Foran, H. M. (2020). Measuring COVID-19 related anxiety in parents: Psychometric comparison of four different inventories. *JMIR Mental Health*, *7*(12), e24507. https://doi.org/10.2196/24507

*Kukreti, S., Ahorsu, D. K., Strong, C., Chen, I. H., Lin, C. Y., Ko, N. Y., Griffiths, M. D., Chen, Y. P., Kuo, Y. J., & Pakpour, A. H. (2021). Post-traumatic stress disorder in Chinese teachers during COVID-19 pandemic: Roles of fear of covid-19, nomophobia, and psychological distress. *Healthcare*, *9*(10), 1288. https://doi.org/10.3390/healthcare9101288

*Kurata, S., Hiraoka, D., Adlan, A. S. A., Jayanath, S., Hamzah, N., Ahmad-Fauzi, A., ... & Tomoda, A. (2021). Influence of the COVID-19 pandemic on parenting stress across asian countries: A cross-national study. *Frontiers in Psychology, 12*, https://doi.org/10.3389/fpsyg.2021.782298

*Kuru Alici, N., & Ozturk Copur, E. (2021). Anxiety and fear of COVID-19 among nursing students during the COVID-19 pandemic: A descriptive correlation study. *Perspect. Psychiatr. Care,* Advance online publication, 1-8. https://doi.org/10.1111/ppc.12851

*Landa-Blanco, M., Santos-Midence, C., Landa-Blanco, A. L., Andino-Rodriguez, E., & Cortés-Ramos, A. (2021). The relationship between fear of COVID-19 and anxiety in Honduran population. Advance online publication. https://doi.org/10.31234/osf.io/zyw6c

Landis, J., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics,* 33, 159 –174.

Lee S. A. (2020). Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies*, *44*(7), 393–401. https://doi.org/10.1080/07481187.2020.1748481

*Mahmoud, N., Zeid, W., Alsabahy, K., & Ezzeldeen, E. (2021). Fear of coronavirus disease (COVID-19) among Egyptian physicians. *Suez Canal University Medical Journal*, *24*(2), 193-200.

*Majeed, M. M., Salim, Z., Shaikh, A. H., Ramzan, Z., Bhatia, M. R., & Rafique, S. (2021). A comparative study to evaluate COVID-19 related anxiety and fear among medical doctors and dental surgeons. *Ethiopian Medical Journal*, *59*(2).

*Majeed, S., Schwaiger, E. M., Nazim, A., & Samuel, I. S. (2021). The psychological impact of COVID-19 among Pakistani adults in Lahore. *Frontiers in Public Health*, *9*, 578366. https://doi.org/10.3389/fpubh.2021.578366

*Mamun M. A. (2021). Exploring factors in fear of COVID-19 and its GIS-based nationwide distribution: the case of Bangladesh. *BJPsych Open*, *7*(5), e150. https://doi.org/10.1192/bjo.2021.984

*Martínez-Lorca, M., Martínez-Lorca, A., Criado-Álvarez, J. J., Armesilla, M., & Latorre, J. M. (2020). The fear of COVID-19 scale: Validation in Spanish university students. *Psychiatry Research*, *293*, 113350. https://doi.org/10.1016/j.psychres.2020.113350

*Matsushima, M., Tsuno, K., Okawa, S., Hori, A., & Tabuchi, T. (2021). Trust and wellbeing of postpartum women during the COVID-19 crisis: Depression and fear of COVID-19. *SSM - Population Health*, *15*, 100903. https://doi.org/10.1016/j.ssmph.2021.100903

*Mekori-Domachevsky, E., Matalon, N., Mayer, Y., Shiffman, N., Lurie, I., Gothelf, D., & Dekel, I. (2021). Internalizing symptoms impede adolescents' ability to transition from in-person to online mental health services during the 2019 coronavirus disease pandemic. *Journal of telemedicine and telecare*, 1357633X211021293.https://doi.org/10.1177/1357633X211021293

Metin, A., Çetinkaya, A., & Erbiçer, E. S. (2021). Subjective well-being and resilience during COVID-19 pandemic in Turkey. *European Journal of Health Psychology, 28*(4), 152–160. https://doi.org/10.1027/2512-8442/a000081

*Midorikawa, H., Aiba, M., Lebowitz, A., Taguchi, T., Shiratori, Y., Ogawa, T., Takahashi, A., Takahashi, S., Nemoto, K., Arai, T., & Tachikawa, H. (2021). Confirming validity of the Fear of COVID-19 Scale in Japanese with a nationwide large-scale sample. *PloS One*, *16*(2), e0246840. https://doi.org/10.1371/journal.pone.0246840

*Mistry, S. K., Ali, A., Akther, F., Yadav, U. N., & Harris, M. F. (2021). Exploring fear of COVID-19 and its correlates among older adults in Bangladesh. *Globalization and Health*, *17*(1), 47. https://doi.org/10.1186/s12992-021-00698-0

Mistry, S. K., Ali, A., Yadav, U. N., Ghimire, S., Hossain, M. B., Das Shuvo, S., Saha, M., Sarwar, S., Nirob, M., Sekaran, V. C., & Harris, M. F. (2021). Older adults with non-communicable chronic conditions and their health care access amid COVID-19 pandemic in Bangladesh: Findings from a cross-sectional study. *PloS One*, *16*(7), e0255534. https://doi.org/10.1371/journal.pone.0255534

*Mohanty, A., Dash, P., & Banerji, D. (2021). How do attitudes toward COVID-19 vaccine impact intentions to vaccinate in an emerging economy? The moderating effect of risk perception and Covid-19 anxiety. *Health Marketing Quarterly*, *38*(4), 238–254. https://doi.org/10.1080/07359683.2021.1987030

*Montag, C., Sindermann, C., Rozgonjuk, D., Yang, S., Elhai, J. D., & Yang, H. (2021). Investigating links between fear of COVID-19, neuroticism, social networks use disorder, and smartphone use disorder tendencies. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.682837

*Montefinese, M., Ambrosini, E., & Angrilli, A. (2021). Online search trends and word-related emotional response during COVID-19 lockdown in Italy: A cross-sectional online study. *PeerJ*, *9*, e11858. https://doi.org/10.7717/peerj.11858

*Morales-Rodríguez, F. M. (2021). Fear, stress, resilience and coping strategies during COVID-19 in Spanish university students. *Sustainability*, *13*(11), 5824. https://doi.org/10.3390/su13115824

*Mosazadeh, H., Charkazi, A., Ahmadi-Livani, M., Nori, A., Foroughi, A., Rahimi, A., ... & Rajabi, A. (2021). Association of fear of COVID-19 and preventive behaviors (PB) against COVID-19 in Iran. *Psychiatria*, *18*(3), 169-175. https://doi.org/10.5603/PSYCH.a2021.0016

Murray, D. R., Trudeau, R., & Schaller, M. (2011). On the origins of cultural differences in conformity: four tests of the pathogen prevalence hypothesis. *Personality & Social Psychology Bulletin*, *37*(3), 318–329. https://doi.org/10.1177/0146167210394451.

*Nazari, N., Zekiy, A. O., Feng, L. S., & Griffiths, M. D. (2021). Psychometric validation of the Persian Version of the COVID-19-Related Psychological Distress Scale and association with COVID-19 fear, COVID-19 anxiety, optimism, and lack of resilience. *International Journal of Mental Health and Addiction*, 1–16. https://doi.org/10.1007/s11469-021-00540-z

*Nguyen, H. T., Do, B. N., Pham, K. M., Kim, G. B., Dam, H. T., Nguyen, T. T., ... & Duong, T. V. (2020). Fear of COVID-19 scale—associations of its scores with health literacy and health-related

behaviors among medical students. *International Journal of Environmental Research and Public Health*, *17*(11), 4164. https://doi.org/10.3390/ijerph17114164

Niño, M., Harris, C., Drawve, G., & Fitzpatrick, K. M. (2021). Race and ethnicity, gender, and age on perceived threats and fear of COVID-19: Evidence from two national data sources. *SSM - Population Health*, *13*, 100717. https://doi.org/10.1016/j.ssmph.2020.100717

*Oğraş, M. S., & Yıldırım, K. (2021). The relationship of psychogenic erectile dysfunction with coronavirus anxiety in the COVID-19 pandemic period. *Acta Medica Mediterranea, 37,* 2377-2381.

*Olapegba, P. O., Chovwen, C. O., Ayandele, O., & Ramos-Vera, C. (2021). Fear of COVID-19 and Preventive Health Behavior: Mediating role of post-traumatic stress symptomology and psychological distress. *International Journal of Mental Health and Addiction*, 1–12. Advance online publication. https://doi.org/10.1007/s11469-021-00557-4

*Osagiator Ariyo, J., Olutope Akinnawo, E., Chinonye Akpunne, B., Oluwasanmi Kumuyi, D., & Foluke Onisile, D. (2021). An Investigation of associations and incidence of anxiety, depression, perceived vulnerability to diseases, and fear of COVID-19 among Nigerian health care workers. *Archives of Pediatric Infectious Diseases*, (In Press).

*Oti-Boadi, M., Malm, E., Dey, N., & Oppong, S. (2021). Fear of COVID-19: Psychological distress and coping among university students in Ghana. *Current Psychology (New Brunswick, N.J.)*, 1–11. Advance online publication. https://doi.org/10.1007/s12144-021-02267-5

*Özsoy, G., Yılmaz, H., & Özsoy, İ. (2021). The effect of COVID-19 pandemic on pain, physical activity, and anxiety in individuals with chronic musculoskeletal pain. *Tepecik Eğitim ve Araştırma Hastanesi Dergisi, 31*(3), 355-361. https://doi.org/10.5222/terh.2021.23356

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., McGuinness, L. A., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71.

*Pavlenko, V., Kurapov, A., Drozdov, A., Korchakova, N., Reznik, A., & Isralowitz, R. (2021). COVID-19 fear association with Ukrainian "help profession" student mental health, substance use, and resilience. *Journal of Loss and Trauma*, 1-4. https://doi.org/10.1080/15325024.2021.1961408

*Pegorari, M. S., Silva, C., Araújo, F. C., Silva, J., Ohara, D. G., Matos, A. P., Matos, A. P., & Pinto, A. (2021). Factors associated with social isolation and loneliness in community-dwelling older adults during pandemic times: a cross-sectional study. *Revista da Sociedade Brasileira de Medicina Tropical*, *54*, e01952020. https://doi.org/10.1590/0037-8682-0195-2020

*Peker, A., & Cengiz, S. (2021). Covid-19 fear, happiness and stress in adults: the mediating role of psychological resilience and coping with stress. *International Journal of Psychiatry in Clinical Practice*, 1–9. Advance online publication. https://doi.org/10.1080/13651501.2021.1937656

Pigott, T. A. (1999). Gender differences in the epidemiology and treatment of anxiety disorders. *The Journal of Clinical Psychiatry, 60*(Suppl 18), 4–15.

*Piqueras, J. A., Gomez-Gomez, M., Marzo, J. C., Gomez-Mir, P., Falco, R., Valenzuela, B., & PSICORECUR-SOS COVID-19 study group (2021). Validation of the Spanish Version of Fear of COVID-19 Scale: Its association with acute stress and coping its association with acute stress and coping. *International Journal of Mental Health and Addiction*, 1–18. https://doi.org/10.1007/s11469-021-00615-x

*Pressley, T., Ha, C., & Learn, E. (2021). Teacher stress and anxiety during COVID-19: An empirical study. *School Psychology, 36*(5), 367–376. https://doi.org/10.1037/spq0000468

*Ranieri, J., Guerra, F., Cilli, E., Caiazza, I., Gentili, N., Ripani, B., ... & Di Giacomo, D. (2021). Buffering effect of e-learning on Generation Z undergraduate students: A cross-sectional study during the second COVID-19 lockdown in Italy. *Mediterranean Journal of Clinical Psychology*, *9*(2). https://doi.org/10.13129/2282-1619/mjcp-3051

*Raslan, H. A., A., N., Mohammed Mahmoud Abu Salem, E., AbdElaal, A., Mahmoud, O., & Ali Ibrahim Almanzlawi, H. (2021). Preoperative Anxiety Level and Fear of Covid 19 among adult patients undergoing elective surgery. *Egyptian Journal of Health Care*, *12*(2), 693-704.

*Rodríguez-Hidalgo, A. J., Pantaleón, Y., Dios, I., & Falla, D. (2020). Fear of COVID-19, Stress, and anxiety in university undergraduate students: A predictive model for depression. *Frontiers in Psychology*, *11*, 591797. https://doi.org/10.3389/fpsyg.2020.591797

Rosenthal, R. (1979). The file drawer problem and tolerance for null results. *Psychological Bulletin*, *86*(3), 638. https://doi.org/10.1037/0033-2909.86.3.638

*Salehi, L., Rahimzadeh, M., Molaei, E., Zaheri, H., & Esmaelzadeh-Saeieh, S. (2020). The relationship among fear and anxiety of COVID-19, pregnancy experience, and mental health disorder in pregnant women: A structural equation model. *Brain and Behavior*, *10*(11), e01835. https://doi.org/10.1002/brb3.1835

*Sarıgedik, E., & Ölmez, S. B. The investigation of the relationships among coronavirus anxiety, cyberchondria, and online shopping. *Konuralp Medical Journal*, *13*(S1), 446-454. https://doi.org/10.18521/ktd.928468

Schwartz, S. H., & Bilsky, W. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology, 58*(5), 878.

*Sharifi, N., Rezaei, N., Fathnezhad-Kazemi, A., & Ghiasi, F. (2021). Association between Fear of COVID-19 with Self-care Behaviors in Elderly: A Cross- Sectional Study. *Social Work in Public Health*, *36*(5), 606–614. https://doi.org/10.1080/19371918.2021.1937435

Shekriladze, I., Javakhishvili, N., & Chkhaidze, N. (2021). Culture Related Factors May Shape Coping During Pandemics. *Frontiers in Psychology*, *12*, 1636.

Shulruf, B., Hattie, J., & Dixon, R. (2007). Development of a new measurement tool for individualism and collectivism. *Journal of Psychoeducational Assessment*, *25*(4), 385-401.

*Siddique, R. F., Ahmed, O., & Hossain, K. N. (2021). Relationship between the fear of COVID-19 disease and sleep quality: the mediating role of stress. *Heliyon*, *7*(5), e07033. https://doi.org/10.1016/j.heliyon.2021.e07033

Singelis, T. M., Triandis, H. C., Bhawuk, D., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research: The Journal of Comparative Social Science, 29*(3), 240–275. https://doi.org/10.1177/106939719502900302

*Skalski, S., Uram, P., Dobrakowski, P., & Kwiatkowska, A. (2021). The link between ego-resiliency, social support, SARS-CoV-2 anxiety and trauma effects. Polish adaptation of the Coronavirus Anxiety Scale. *Personality and Individual Differences*, *171*, 110540. https://doi.org/10.1016/j.paid.2020.110540

*Soares, F. R., Afonso, R. M., Martins, A. P., Pakpour, A. H., & Rosa, C. P. (2021). The fear of the COVID-19 Scale: validation in the Portuguese general population. *Death Studies*, 1–7. https://doi.org/10.1080/07481187.2021.1889722

*Sotomayor-Beltran, C., Matta-Solis, H., Perez-Siguas, R., Matta-Solis, E., & Matta-Zamudio, L. (2021). Fear of COVID-19 among Peruvian people living in disadvantaged communities: A

cross-sectional study. *Clinical Practice and Epidemiology in Mental Health : CP & EMH*, *17*, 19–25. https://doi.org/10.2174/1745017902117010019

Spoorthy, M. S., Pratapa, S. K., & Mahant, S. (2020). Mental health problems faced by healthcare workers due to the COVID-19 pandemic–A review. *Asian Journal of Psychiatry*, *51*, 102119.

*Srivastava, A., Bala, R., Srivastava, A. K., Mishra, A., Shamim, R., & Sinha, P. (2020). Anxiety, obsession and fear from coronavirus in Indian population: a web-based study using COVID-19 specific scales. *International Journal of Community Medicine and Public Health*, *7*(11), 4570-7. https://dx.doi.org/10.18203/2394-6040.ijcmph20204763

*Stănculescu, E. (2021). Fear of covid-19 in Romania: Validation of the Romanian version of the fear of covid-19 scale using graded response model analysis. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-020-00428-4

*Suhail, A., Dar, K. A., & Iqbal, N. (2021). COVID-19 related fear and mental health in Indian sample: The buffering effect of support system. *Current Psychology*, 1–12. https://doi.org/10.1007/s12144-021-01694-8

*Sürme, Y., Özmen, N., & Ertürk Arik, B. (2021). Fear of COVID-19 and related factors in emergency department patients. *International Journal of Mental Health and Addiction*, 1–9. https://doi.org/10.1007/s11469-021-00575-2

*Takeda, T., Kai, S., & Yoshimi, K. (2021). Association between premenstrual symptoms and posttraumatic stress symptoms by COVID-19: A cross-sectional study with Japanese high school students. *The Tohoku Journal of Experimental Medicine*, *255*(1), 71–77. https://doi.org/10.1620/tjem.255.71

*Tan, B., Ay, B., Özdemir, J., & Çalıyurt, O. (2021). Fear of Covid-19 among medical students and associated factors. *Turkish Medical Student Journal* *8*(1), 13-16. https://doi.org/10.4274/tmsj.galenos.2021.08.01.04

*Teng, Y. M., Wu, K. S., & Xu, D. (2021). The association between fear of coronavirus disease 2019, mental health, and turnover intention among quarantine hotel employees in China. *Frontiers in Public Health*, *9*, 668774. https://doi.org/10.3389/fpubh.2021.668774

*Terzic-Supic, Z., Todorovic, J., Bajcetic, M., Jankovic, J., Santric-Milicevic, M., Stamenkovic, Z., ... & Matejic, B. (2021). Knowledge, attitudes and practices and fear of COVID-19 among medical students in Serbia. *The Journal of Infection in Developing Countries*, *15*(06), 773-779. https://doi.org/10.3855/jidc.14298

Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Lucca, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self-ingroup relationships. *Journal of Personality and Social Psychology*, *54*(2), 323.

Tsur, N., & Abu-Raiya, H. (2020). COVID-19-related fear and stress among individuals who experienced child abuse: The mediating effect of complex posttraumatic stress disorder. *Child Abuse & Neglect*, *110*(Pt 2), 104694. https://doi.org/10.1016/j.chiabu.2020.104694

*Ullah, I., Lin, C. Y., Malik, N. I., Wu, T. Y., Araban, M., Griffiths, M. D., & Pakpour, A. H. (2021). Factors affecting Pakistani young adults' intentions to uptake COVID-19 vaccination: An extension of the theory of planned behavior. *Brain and Behavior*, *11*(11), e2370. https://doi.org/10.1002/brb3.2370

*Ünver, S., & Yeniğün, S. C. (2021). COVID-19 fear level of surgical nurses working in pandemic and surgical units. *Journal of PeriAnesthesia Nursing*. https://doi.org/10.1016/j.jopan.2021.04.014

*van de Venter, R., Williams, R., Stindt, C., & Ten Ham-Baloyi, W. (2021). Coronavirus-related anxiety and fear among South African diagnostic radiographers working in the clinical

setting during the pandemic. *Journal of Medical Imaging and Radiation Sciences*, *52*(4), 586–594. https://doi.org/10.1016/j.jmir.2021.09.016

*Van Pham, T., Van Huynh, S., Dang-Thi, N. T., & Tran-Chi, V. L. (2021). Fear of COVID-19 among Vietnamese undergraduates and predictors of their fear. *Journal of Biochemistry Techology, 12*(3), 27-32. https://doi.org/10.51847/iSWa5cqOkF

*Vinaccia, S., Bahamón, M. J., Trejos-Herrera, A. M., Lee, S. A., Quiceno, J. M., Gómez, C. A., Vega DoLugar, S., & Pelaez, E. C. (2021). Validating the coronavirus anxiety scale in a Colombian sample. *Death Studies.* https://doi.org/10.1080/07481187.2021.1944401

*Vu, B. T., & Bosmans, G. (2021). Psychological impact of COVID-19 anxiety on learning burnout in Vietnamese students. *School Psychology International*, 42(5), 486-496. https://doi.org/10.1177/01430343211013875

*Wakashima, K., Asai, K., Kobayashi, D., Koiwa, K., Kamoshida, S., & Sakuraba, M. (2020). The Japanese version of the Fear of COVID-19 scale: Reliability, validity, and relation to coping behavior. *PloS One*, *15*(11), e0241958. https://doi.org/10.1371/journal.pone.0241958

Wheaton, M. G., Ward, H. E., Silber, A., McIngvale, E., & Björgvinsson, T. (2021). How is the COVID-19 pandemic affecting individuals with obsessive-compulsive disorder (OCD) symptoms?. *Journal of Anxiety Disorders*, *81*, 102410. https://doi.org/10.1016/j.janxdis.2021.102410

Xiaoming, X., Ming, A., Su, H., Wo, W., Jianmei, C., Qi, Z., ... & Li, K. (2020). The psychological status of 8817 hospital workers during COVID-19 Epidemic: A cross-sectional study in Chongqing. *Journal of Affective Disorders*, *276*, 555-561.

*Yadav, U. N., Yadav, O. P., Singh, D. R., Ghimire, S., Rayamajhee, B., Kanti Mistry, S., Rawal, L. B., Ali, A. M., Kumar Tamang, M., & Mehta, S. (2021). Perceived fear of COVID-19 and its associated factors among Nepalese older adults in eastern Nepal: A cross-sectional study. *PloS One*, *16*(7), e0254825. https://doi.org/10.1371/journal.pone.0254825

Yadav, U. N., Yadav, O. P., Singh, D. R., Ghimire, S., Rayamajhee, B., Kanti Mistry, S., Rawal, L. B., Ali, A. M., Kumar Tamang, M., & Mehta, S. (2021). Perceived fear of COVID-19 and its associated factors among Nepalese older adults in eastern Nepal: A cross-sectional study. *PloS One*, *16*(7), e0254825. https://doi.org/10.1371/journal.pone.0254825

*Yıldırım, M., & Guler, A. (2021). Coronavirus anxiety, fear of COVID-19, hope and resilience in healthcare workers: a moderated mediation model study. *Health Psychology Report*. https://doi.org/10.5114/hpr.2021.107336

*Yurttas, B., Poyraz, B. C., Sut, N., Ozdede, A., Oztas, M., Uğurlu, S., Tabak, F., Hamuryudan, V., & Seyahi, E. (2021). Willingness to get the COVID-19 vaccine among patients with rheumatic diseases, healthcare workers and general population in Turkey: a web-based survey. R*heumatology International*, *41*(6), 1105–1114. https://doi.org/10.1007/s00296-021-04841-3

*Zolotov, Y., Reznik, A., Bender, S., & Isralowitz, R. (2020). COVID-19 fear, mental health, and substance use among Israeli university students. *International Journal of Mental Health and Addiction*, 1–7. https://doi.org/10.1007/s11469-020-00351-8

EXTENDED ABSTRACT

Giriş

COVID-19 ile ilişkili korku ve kaygının depresyon (Erbiçer vd., 2021; Rodríguez-Hidalgo vd., 2021), anksiyete (Bakioğlu vd., 2021), obsesif-kompulsif bozukluk (Khosravani vd., 2021a; Khosravani vd., 2021b; Wheaton vd., 2021), TSSB (Kira vd., 2020; Tsur ve Abu-Raiya, 2020) ve yaygın anksiyete bozukluğu (Gambin vd., 2020; Nwachukwu vd., 2020) gibi çeşitli psikolojik sorunlarla ilişkili olduğu ortaya konulmuştur. Bu çalışmanın temel amacı, COVID-19 ile ilişkili korku ve kaygı üzerine bir sistematik bir inceleme ve meta-analiz çalışması yürütmektir. İkincil amacı ise bazı demografik ve metodolojik moderatörlerin (ör., çalışmalardaki kadın oranı, yaş, kültür) COVID-19 ile ilişkili korku ve kaygı düzeyleri üzerindeki etkisini incelemektir.

Yöntem

İlgili olabilecek çalışmaları belirlemek amacıyla SCOPUS, Google Scholar, PubMed ve Web of Science veri tabanları dahil olmak üzere çeşitli veri tabanları taranmıştır. Mevcut çalışmaya dahil edilen yayınların kalitesini belirlemek için Kesitsel Çalışmalar için Kalite Değerlendirme Aracı (AXIS) kullanılmıştır (Downes vd., 2016). Değerlendirme aracı 20 maddeden oluşmakta ve Evet "1", Hayır "0" ve Belirsiz/Bilinmiyor "0" olarak kodlanmıştır. Bireysel çalışmalardan elde edilen puanlar COVID-19 korkusu için %65'ten ve COVID-19 kaygısı için %70'ten yüksek olduğu belirlenmiştir.

Bu çalışmada COVID-19 korkusu ve COVID-19 kaygısının ortalamasını tahmin etmek için rastgele etkiler modeli kullanılmıştır. Meta-analize dahil edilen çalışmalar arasındaki heterojenliği değerlendirmek amacıyla Q testi ve I2 değerleri kullanılmıştır. Dahil edilen çalışmalar arasındaki olası heterojenliğin kaynağını saptamak için ise analog ANOVA ve meta-regresyon analizleri yapılmıştır. Olası kategorik moderatörler kıta, hedef popülasyon ve kültürdü ve sürekli moderatörler ise yaş ve çalışmalardaki kadın katılımcı oranıydı. Yayın yanlılığını belirlemek için ise Rosenthal's fail-safe N, Funnel plot ve Egger regresyon testi kullanılmıştır.

Bulgular

Çalışma bulguları incelendiğinde, heterojenliğe ilişkin Cochran Q-istatistikleri COVID-19 ile ilişkili korku ve kaygı için sırasıyla 24.271 ve 59.08 olarak tahmin edilmiş ve anlamlı bulunmuştur. I2 değerlerinin korku için yüksek düzeyde olduğu tespit edilmiştir (%99,52). Ancak, kaygı için I2 değerinin düşük düzeyde olduğu bulunmuştur (%32,30). Mevcut çalışmada, COVID-19 korkusunun birleştirilmiş ortalaması 18.96 (95% CI: 18.43-19.50) ve COVID-19 kaygısının birleştirilmiş ortalaması 2.50 (95% CI: 1.75-2.25) olarak tespit edilmiştir.

Moderatör analizleri incelendiğinde, COVID-19 korkusu ortalamalarında kıta ve kültür açısından istatistiksel olarak anlamlı farklılıklar olduğu, ancak hedef popülasyona göre anlamlı bir fark olmadığı ortaya konulmuştur. COVID-19 kaygısı ortalamalarında ise kıta ve hedef popülasyon açısından istatistiksel olarak anlamlı farklılıklar olduğu, ancak kültüre göre anlamlı bir fark olmadığı bulunmuştur.

Tartışma ve Sonuç

Bu sistematik inceleme ve meta-analiz çalışması ile COVID-19 ile ilişkili korku ve kaygının birleştirilmiş ortalaması ortaya konulmuştur. Mevcut çalışmanın birkaç sınırlılığı olmasına rağmen, sonuçlar COVID-19 ile ilişkili korku ve kaygının yüksek düzeyde olmadığını ortaya koymuştur. Ek olarak, kolektivist yönelimli kültürlerde ve Orta Doğu'da daha yüksek COVID-19 ile ilişkili korku saptanırken, hastane personeli ve Orta Doğu'da daha yüksek COVID-19 ile ilişkili kaygıya dair ek kanıtlar bulunmuştur.

APPENDIX

Table 1

Study characteristics

Author	N (sample size)	Country	Continent	Target population	Sample age (mean)	Female (%)
	Studies included in the meta-analysis for the mean of COVID-19 related fear					
Nguyen et al., 2020	5423	Vietnam	Asia	University Students	22.00	52.10
Bharatharaj et al., 2021	95	India	Asia	General Population	31.07	49.00
Doshi et al., 2020	1499	India	Asia	General Population	N.A.	54.40
Broche-Perez et al., 2020	772	Cuba	North America	General Population	36.00	73.70
Barbosa-Camacho et al., 2020	1216	Mexico	North America	Hospital Staff	37.50	61.00
García-Reyna et al., 2020	2860	Mexico	North America	Hospital Staff	N.A.	57.38
Zolotov et al., 2020	370	Israel	Europe	University Students	25.2	78.1
Martinez-Lorca et al., 2020	606	Spain	Europe	University Students	21.59	82
Gritsenko et al., 2020	939	Belarus and Russia	Europe	University Students	21.80	80.80
Haktanır et al., 2020	668	Türkiye	Europe	General Population	31.04	72.00
Bakioğlu et al., 2020	960	Türkiye	Europe	General Population	29.74	69.1
Akbari et al., 2021	541	Iran	Asia	Infected Population	41.3	52.3
Aksoy et al., 2021	1060	Türkiye	Europe	General Population	29.76	66.5
Alharbi et al., 2021	803	Saudi Arabia	Middle East	General Population	29.1	69.5
Ali et al., 2021-1	545	Bangladesh	Asia	General Population	N.A.	N.A.
Ali et al., 2021-2	111	Australia	Oceania	General Population	N.A.	N.A.
Ali et al., 2021-3	123	Canada and USA	North America	General Population	N.A.	N.A.
Ali et al., 2021-4	121	Sweden and UK	Europe	General Population	N.A.	N.A.
Ali et al., 2021-5	225	UAE	Middle East	General Population	N.A.	N.A.
Ali et al., 2021-6	130	Egypt	Middle East	General Population	N.A.	N.A.
Alnazly et al., 2021	365	Jordan	Middle East	Hospital Staff	N.A.	55.6
Alothman et al., 2021	554	Saudi Arabia	Middle East	General Population	34.5	82.86
Al-Shannaq et al., 2021	725	Jordan	Middle East	General Population	33.7	56.4
Aluh et al., 2021	1011	Nigeria	Africa	General Population	N.A.	62.6

Antonio & Elizabeth, 2021	438	Mexico	North America	General Population	N.A.	74.4
Asgari Ghoncheh et al., 2021	696	Iran	Middle East	Older Adults	69.56	57.9
Aslam et al., 2021	250	Pakistan	Asia	General Population	24.02	35.6
Aslan & Dinç, 2021	845	Türkiye	Europe	Hospital Staff	N.A.	72.2
Ayandele et al., 2021	1172	Nigeria	Africa	General Population	22.9	54.5
Aygör & Çayır, 2021	243	Türkiye	Europe	Hospital Staff	31.07	80.2
Barbosa-Camacho et al., 2021	1216	Mexico	North America	General Population	37.5	61
Barua et al., 2021	370	Bangladesh	Asia	Hospital Staff	30.5	39.7
Belen, 2021	304	Türkiye	Europe	University Students	22.37	71.6
Cervantes-Guevara et al., 2021	1529	Mexico	North America	School Personnel	N.A.	56.5
Chodkiewicz & Gola, 2021	756	Poland	Europe	General Population	31.91	79.1
Couto et al., 2021	227	Brazil	South America	Hospital Staff	33.01	67.8
De los Santos & Labrague, 2021	385	Philippines	Asia	Hospital Staff	32.65	84.2
De Los Santos et al., 2021	261	Philippines	Asia	Healthcare Students	20.7	81.2
Deniz Günaydın, 2021	447	Türkiye	Europe	General Population	39.44	62.9
Deniz, 2021	667	Türkiye	Europe	General Population	31.22	30.3
Doğan et al., 2021	135	Türkiye	Europe	Medical	47.39	33.3
Elyased & Ghazi, 2021	275	Egypt	Middle East	Healthcare Students	N.A.	65.1
Ercan et al., 2021	156	Türkiye	Europe	Older Adults	71.86	46.2
Flora et al., 2021	88	Greece	Europe	Academics	N.A.	78.4
Ghaderi et al., 2021	457	Iran	Middle East	General Population	37.86	44.9
Golabi et al., 2021	200	Iran	Middle East	Medical	57.11	15
Gözpınar et al., 2021	381	Türkiye	Europe	Teenager	15.36	49.4
Grande & Doyle-Baker, 2021	680	Canada	North America	University Students	23	73.4
Green et al., 2021	608	Pakistan	Asia	University Students	24.76	58
Gélinas et al., 2021-1	191	Canada	North America	Hospital Staff	41.03	93.2
Gélinas et al., 2021-2	1517	Canada	North America	Hospital Staff	41.11	86.3
Günaydın, 2021	513	Türkiye	Europe	University Students	N.A.	81.9
Gündoğan, 2021	430	Türkiye	Europe	University Students	22.3	64.9
Hasan et al., 2021	756	Bangladesh	Asia	General Population	22.24	41
Hwang et al., 2021-1	186	South Korea	Asia	General Population	39.19	44.1

Hwang et al., 2021-2	17	South Korea	Asia	Clinical	40.6	23.5
Izhar et al., 2021	626	Pakistan	Asia	General Population	N.A.	88
Kakodkar et al., 2021	198	India	Asia	University Students	N.A.	60.1
Karadem et al., 2021	527	Türkiye	Europe	Hospital Staff	35.7	55
Karahan et al., 2021	138	Türkiye	Europe	Hospital Staff	37.6	47.8
Karataş et al., 2021	1186	Türkiye	Europe	General Population	41.042	57.8
Karawekpanyawong et al., 2021	244	Thailand	Asia	Healthcare Students	20.7	75
Kardaş, 2021	679	Türkiye	Europe	General Population	26.7	68.8
Kayış et al., 2021	773	Türkiye	Europe	General Population	24.36	71.9
Kukreti et al., 2021	2603	China	Asia	Teachers	N.A.	71.6
Kuru Alıcı & Öztürk Çopur, 2021	234	Türkiye	Europe	Healthcare Students	20.12	32.1
Landa-Blanco et al., 2021	595	Honduras	North America	General Population	25.1	62.02
Mahmoud et al., 2021	382	Egypt	Middle East	Hospital Staff	33.83	68.6
Majeed et al., 2021	487	Pakistan	Asia	Hospital Staff	N.A.	62.2
Mamun, 2021	10052	Bangladesh	Asia	General Population	26.95	43.8
Matsushima et al., 2021	558	Japan	Asia	Postpartum Women	N.A.	100
Mekori-Domachevsky et al., 2021-1	44	Israel	Europe	Medical	14.62	54
Mekori-Domachevsky et al., 2021-2	40	Israel	Europe	Medical	48.24	80
Mistry et al., 2021	1032	Bangladesh	Asia	Older Adults	N.A.	34.5
Montag et al., 2021	932	China	Asia	University Students	21.1	74.6
Montefinese et al., 2021	71	Italy	Europe	General Population	26.2	88.7
Mosazadeh et al., 2021	734	Iran	Middle East	General Population	33.97	51.9
Olapegba et al., 2021	1172	Nigeria	Africa	General Population	22.9	54.5
Osagiator Ariyo et al., 2021	413	Nigeria	Africa	Hospital Staff	38.7	52.1
Oti-Boadi et al., 2021	209	Ghana	Africa	University Students	21.54	35.9
Gerçeker et al., 2021	402	Türkiye	Europe	Parents	40.24	89.1
Altınayak & Yılar Erkek, 2021	1749	Türkiye	Europe	General Population	32.9	53.6
Pavlenko et al., 2021	907	Ukrania	Europe	Healthcare Students	20.6	82.2
Peker & Cengiz, 2021	827	Türkiye	Europe	General Population	29.18	62.4
Piqueras et al., 2021	1146	Spain	Europe	General Population	35.39	75.2
Raslan et al., 2021	220	Egypt	Middle East	Medical	40.1	N.A.

Rodriguez-Hidalgo et al., 2021	640	Ecuador	South America	University Students	21.69	72
Sharifi et al., 2021	350	Iran	Middle East	Older Adults	69.91	62.6
Siddique et al., 2021	521	Bangladesh	Asia	General Population	24.78	49.70
Soares et al., 2021	1203	Portugal	Europe	General Population	41.7	68
Sotomayor-Beltran et al., 2021	449	Peru	South America	General Population	40.75	51.2
Suhail et al., 2021	163	India	Asia	General Population	26.64	53.37
Sürme et al., 2021	639	Türkiye	Europe	Medical	46.12	46.6
Takeda et al., 2021	871	Japan	Asia	University Students	N.A.	N.A.
Tan et al., 2021	352	Türkiye	Europe	University Students	20.04	65.7
Teng et al., 2021	170	China	Asia	Hotel Employees	N.A.	58.2
Terzic-Supic et al., 2021	1722	Serbia	Europe	Healthcare Students	22.26	70.8
Ullah et al., 2021	1034	Pakistan	Asia	Young Adults	22.17	71.9
Ünver & Yeniğün, 2021	202	Türkiye	Europe	Hospital Staff	35.54	71.3
van de Venter et al., 2021	248	South Africa	Africa	Hospital Staff	N.A.	89.9
Van Pham et al., 2021	807	Vietnam	Asia	University Students	N.A.	78.7
Wakashima et al., 2020	450	Japan	Asia	General Population	48.13	65
Yadav et al., 2021	847	Nepal	Asia	Older Adults	N.A.	48.9
Can & Bayar, 2021	171	Türkiye	Europe	Hospital Staff	N.A.	45.6
Yıldırım & Güler, 2021	168	Türkiye	Europe	Hospital Staff	29.19	63.1
İlktaç et al., 2021	495	Türkiye	Europe	General Population	32.3	69.1
Midorikawa et al., 2021	6750	Japan	Asia	General Population	N.A.	63.50
Stănculescu, 2021	809	Romania	Europe	General Population	32.61	65.4
Morales-Rodriguez., 2021	180	Spain	Europe	University Students	20.76	61.00
Abuhammad et al., 2021	1655	Jordan	Middle East	General Population	29.5	63.8
Giordani et al., 2021a	4638	Brazil	South America	General Population	41.50	75.40
Giordani et al., 2021b	387	Mozambic	Africa	General Population	34.50	51.70
Gasparro et al., 2020	735	Italy	Europe	Hospital Staff	44.8	32.7
Salehi et al., 2020	222	Iran	Middle East	Pregnant Women	29.1	100
Kaya et al., 2020	1012	Türkiye	Europe	General Population	28.3	81.7
Cavalheiro & Sticca, 2020	354	Brazil	South America	General Population	34.9	54
Yalçın et al., 2021	588	Türkiye	Europe	General Population	30.42	55.3

Studies included in the meta-analysis for the mean of COVID-19 related anxiety						
Oğraş & Yıldırım, 2021	30	Türkiye	Europe	Medical	39.73	N.A.
Mohanty et al., 2021	254	India	Asia	General Population	N.A.	47.60
Özsoy et al., 2021	70	Türkiye	Europe	Medical	50.04	74.60
Pressley et al., 2021	329	USA	North America	Teachers	N.A.	N.A.
Aydın et al., 2021	692	Türkiye	Europe	Hospital Staff	29.24	77.70
Chen et al., 2021	1011	China	Asia	General Population	41.20	61.20
van de Venter et al., 2021	248	South Africa	Africa	Hospital Staff	N.A.	89.90
Sarıgedik & Ölmez, 2021	407	Türkiye	Europe	General Population	29.54	63.90
Abroshan et al., 2021	198	Belgium	Europe	General Population	N.A.	62.60
Ranieri et al., 2021	529	Italy	Europe	University Students	21.80	79.60
Alshehry et al., 2021	1170	Saudi Arabia	Middle East	Healthcare Students	21.31	54.60
Faramawy & Abd El Kader, 2021	60	Egypt	Middle East	Hospital Staff	N.A.	68.30
Fard et al., 2021-2	118	Iran	Middle East	Mother	N.A.	100.00
Bhattacharya et al., 2021	128	Nepal	Asia	Hospital Staff	44.31	50.80
Eşkut et al., 2021	247	Türkiye	Europe	Medical	45.95	64.00
Vinaccia et al., 2021	421	Columbia	South America	General Population	26.77	60.10
García-Reyna et al., 2021	2140	Mexico	North America	Hospital Staff	36.10	58.20
Ho & Moscovitch, 2021	488	USA	North America	General Population	N.A.	48.00
Albery et al., 2021	298	UK	Europe	General Population	46.27	50.30
Kurata et al., 2021-1	139	India	Asia	General Population	32.5	35.90
Kurata et al., 2021-2	39	Malaysia	Asia	General Population	39.4	71.60
Kurata et al., 2021-3	155	Japan	Asia	General Population	37.4	79.70
Kurata et al., 2021-4	197	USA	North America	General Population	36.5	59.10
Curtis et al., 2021	281	USA	North America	General Population	64.69	44.83
Dirlik et al., 2021	253	Türkiye	Europe	General Population	N.A.	N.A.
Enea et al., 2021	100	Romania	Europe	General Population	43.64	80.00
Nazari et al., 2021	623	Iran	Middle East	General Population	32.97	61.00
Kameg et al., 2021	140	USA	North America	Hospital Staff	N.A.	76.80
Vu & Bosmans, 2021	652	Vietnam	Asia	Teenager	12.6	56.30
Ashoor et al., 2021	129	Saudi Arabia	Middle East	Hospital Staff	N.A.	36.40
Yurttaş et al., 2021-1	732	Türkiye	Europe	Medical	42.8	64.75

Yurttaş et al., 2021-2	763	Türkiye	Europe	General Population	40.8	66.18
Yurttaş et al., 2021-3	320	Türkiye	Europe	Hospital Staff	37.0	72.50
Majeed et al., 2021	240	Pakistan	Asia	General Population	N.A.	80.00
Arslan et al., 2021	315	Türkiye	Europe	University Students	21.65	67.00
Kubb & Foran, 2020	515	Germany	Europe	Parents	34.95	90.30
Srivastava et al., 2020	66	India	Asia	General Population	N.A.	36.36
Haddad et al., 2021	405	Lebanon	Middle East	General Population	28.38	79.80
Pegorari et al., 2021	86	Brazil	South America	Older Adults	71.78	68.60
Evren et al., 2020	1113	Türkiye	Europe	General Population	43.32	61.70
Skalski et al., 2021	515	Poland	Europe	General Population	34.64	58.00

Table 2

Results of the meta-analyses

Outcomes	*k*	*ES*	95% CI	*Z*	p_z	Cochran's *Q*	p_Q	I^2 (%)	Classic Fail Safe *N*
COVID-19 fear	117	18.96	18.43-19.50	69.72	< .001	24271.36	< .001	99.52	2959
COVID-19 anxiety	41	2.50	1.75-3.25	6.52	< .001	59.08	.026	32.30	861

Note. **Fail-safe *N* calculation using the Rosenthal Approach, *k* = Number of effect sizes, Cochran's *Q* = Tests of heterogeneity, CI = Confidence interval, Effect size calculations were based on the random effects model.**

Table 3

Results of categorical moderator analyses

Outcome	Predictors	Categories	*k*	*ES*	95% CI	Between group *Q*
COVID-19 fear	Continent	Africa	7	20.47***	18.83-22.32	16.32**
		Asia	31	19.58***	18.52-20.65	
		Europe	46	17.58***	16.96-18.55	
		Middle East	16	20.86***	18.72-22.99	
		North America	11	18.25***	17.29-19.22	
		South America	5	18.94***	15.93-21.95	
	Target population	General population	52	18.88***	18.19-19.57	9.13
		Healthcare students	6	19.46***	15.24-23.66	
		Hospital staff	20	19.52***	17.99-21.05	
		Medical	6	19.42***	14.38-24.47	
		Older adults	5	19.77***	17.69-21.87	
		University students	17	17.39***	16.40-18.39	
	Culture	Collectivism	101	19.25***	18.70-19.80	9.08**
		Individualism	16	17.13***	15.86-18.40	
COVID-19 anxiety	Continent	Asia	9	1.12***	0.88-1.35	17.50***
		Europe	17	2.93***	1.60-4.27	
		Middle East	6	3.87***	0.78-6.96	
		North America	6	2.94***	1.72-4.17	
		South America	2	1.39	-1.80-4.59	
	Target population	General population	21	1.18***	0.95-1.40	8.95*
		Hospital staff	8	5.35***	1.32-8.97	
		Medical	4	4.15***	0.86-7.44	
		University students	2	3.83**	*2.01-9.67	
	Culture	Collectivism	30	2.63***	1.69-3.55	0.00
		Individualism	11	2.64***	1.55-3.72	

***Note.* *k* = Number of effect sizes, Cochran's *Q* = Tests of heterogeneity, CI: Confidence interval. * *p* < .05. ** *p* < .01. *** *p* < .001.**

Table 4

Results of multivariate meta regression analysis for COVID-19 related fear, anxiety, and stress

	COVID-19 related fear				COVID-19 related anxiety			
Predictors	*β*	*S.E.*	*z*	*p*	*β*	*S.E.*	*z*	*p*
Sample age	0.01	0.05	0.20	.84	-0.05	0.04	-1.28	.20
Female proportion	-0.02	0.03	-0.68	.49	-0.04	0.04	-0.96	.34

***Note.* β = Regression coefficient; *S.E.* = Standart error *z* = Significance of moderator. **p* < .05. ***p* < .01. *** *p* < .001.**

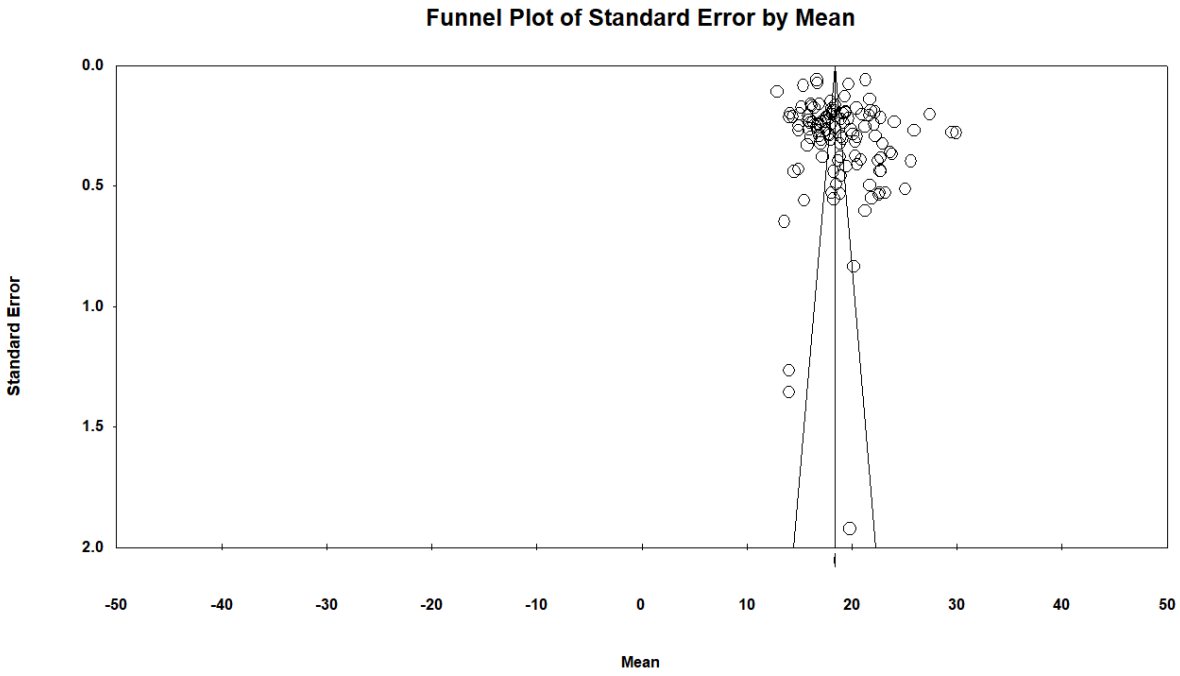


Figure1-1. Funnel plot of standard error for the mean of COVID-19 related fear

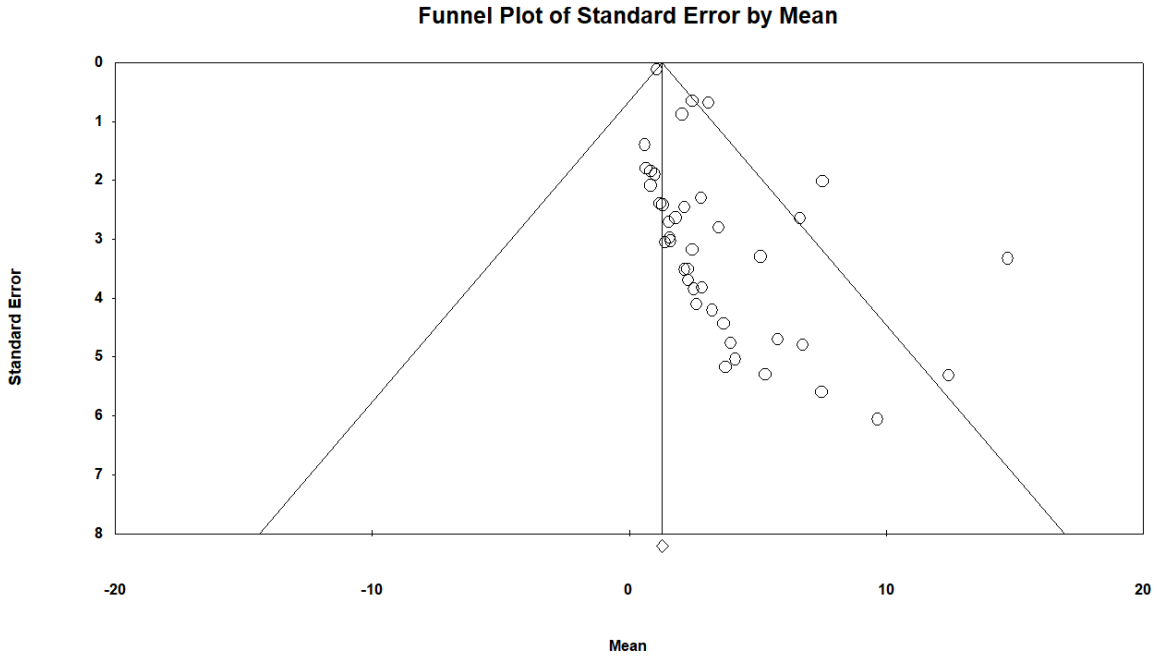
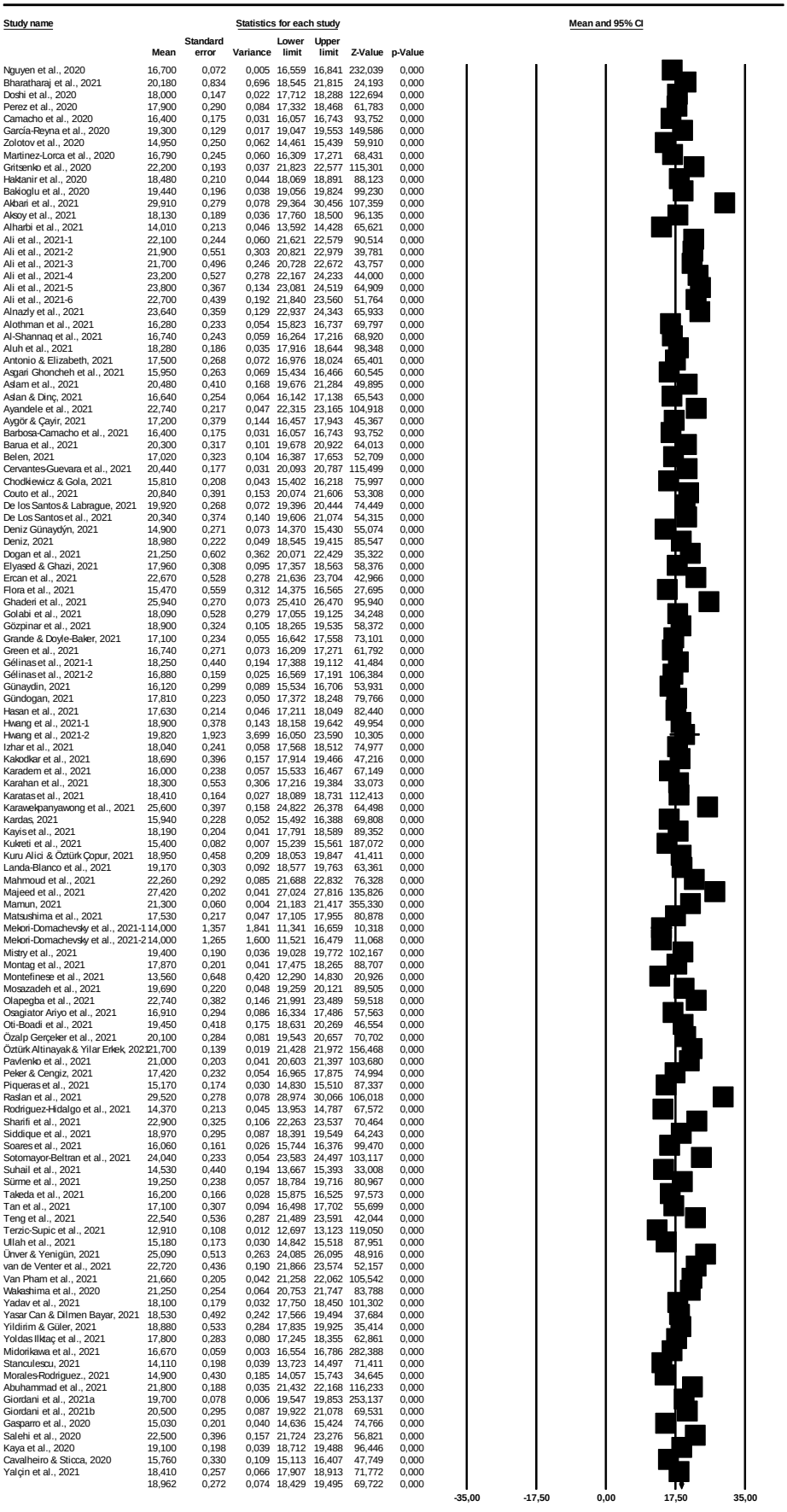


Figure1-2. Funnel plot of standard error for the mean of COVID-19 related anxiety



Study name	Mean	Standard error	Variance	Lower limit	Upper limit	Z-Value	p-Value
Nguyen et al., 2020	16,700	0,072	0,005	16,559	16,841	232,039	0,000
Bharatharaj et al., 2021	20,180	0,834	0,696	18,545	21,815	24,193	0,000
Doshi et al., 2020	18,000	0,147	0,022	17,712	18,288	122,694	0,000
Perez et al., 2020	17,900	0,290	0,084	17,332	18,468	61,783	0,000
Camacho et al., 2020	16,400	0,175	0,031	16,057	16,743	93,752	0,000
García-Reyna et al., 2020	19,300	0,129	0,017	19,047	19,553	149,586	0,000
Zolotov et al., 2020	14,950	0,250	0,062	14,461	15,439	59,910	0,000
Martinez-Lorca et al., 2020	16,790	0,245	0,060	16,309	17,271	68,431	0,000
Gritsenko et al., 2020	22,200	0,193	0,037	21,823	22,577	115,301	0,000
Haktanir et al., 2020	18,480	0,210	0,044	18,069	18,891	88,123	0,000
Bakoglu et al., 2020	19,440	0,196	0,038	19,056	19,824	99,230	0,000
Akbari et al., 2021	29,910	0,279	0,078	29,364	30,456	107,359	0,000
Aksoy et al., 2021	18,130	0,189	0,036	17,760	18,500	96,135	0,000
Alharbi et al., 2021	14,010	0,213	0,046	13,592	14,428	65,621	0,000
Ali et al., 2021-1	22,100	0,244	0,060	21,621	22,579	90,514	0,000
Ali et al., 2021-2	21,900	0,551	0,303	20,821	22,979	39,781	0,000
Ali et al., 2021-3	21,700	0,496	0,246	20,728	22,672	43,757	0,000
Ali et al., 2021-4	23,200	0,527	0,278	22,167	24,233	44,000	0,000
Ali et al., 2021-5	23,800	0,367	0,134	23,081	24,519	64,909	0,000
Ali et al., 2021-6	22,700	0,439	0,192	21,840	23,560	51,764	0,000
Alnazly et al., 2021	23,640	0,359	0,129	22,937	24,343	65,933	0,000
Alothman et al., 2021	16,280	0,233	0,054	15,823	16,737	69,797	0,000
Al-Shannaq et al., 2021	16,740	0,243	0,059	16,264	17,216	68,920	0,000
Aluh et al., 2021	18,280	0,186	0,035	17,916	18,644	98,348	0,000
Antonio & Elizabeth, 2021	17,500	0,268	0,072	16,976	18,024	65,401	0,000
Asgari Ghoncheh et al., 2021	15,950	0,263	0,069	15,434	16,466	60,545	0,000
Aslam et al., 2021	20,480	0,410	0,168	19,676	21,284	49,895	0,000
Aslan & Dinç, 2021	16,640	0,254	0,064	16,142	17,138	65,543	0,000
Ayandele et al., 2021	22,740	0,217	0,047	22,315	23,165	104,918	0,000
Aygör & Çayir, 2021	17,200	0,379	0,144	16,457	17,943	45,367	0,000
Barbosa-Camacho et al., 2021	16,400	0,175	0,031	16,057	16,743	93,752	0,000
Barua et al., 2021	20,300	0,317	0,101	19,678	20,922	64,013	0,000
Belen, 2021	17,020	0,323	0,104	16,387	17,653	52,709	0,000
Cervantes-Guevara et al., 2021	20,440	0,177	0,031	20,093	20,787	115,499	0,000
Chodkiewicz & Gola, 2021	15,810	0,208	0,043	15,402	16,218	75,997	0,000
Couto et al., 2021	20,840	0,391	0,153	20,074	21,606	53,308	0,000
De los Santos & Labrague, 2021	19,920	0,268	0,072	19,396	20,444	74,449	0,000
De Los Santos et al., 2021	20,340	0,374	0,140	19,606	21,074	54,315	0,000
Deniz Günaydýn, 2021	14,900	0,271	0,073	14,370	15,430	55,074	0,000
Deniz, 2021	18,980	0,222	0,049	18,545	19,415	85,547	0,000
Dogan et al., 2021	21,250	0,602	0,362	20,071	22,429	35,322	0,000
Elyased & Ghazi, 2021	17,960	0,308	0,095	17,357	18,563	58,376	0,000
Ercan et al., 2021	22,670	0,528	0,278	21,636	23,704	42,966	0,000
Flora et al., 2021	15,470	0,559	0,312	14,375	16,565	27,695	0,000
Ghaderi et al., 2021	25,940	0,270	0,073	25,410	26,470	95,940	0,000
Golabi et al., 2021	18,090	0,528	0,279	17,055	19,125	34,248	0,000
Gözpinar et al., 2021	18,900	0,324	0,105	18,265	19,535	58,372	0,000
Grande & Doyle-Baker, 2021	17,100	0,234	0,055	16,642	17,558	73,101	0,000
Green et al., 2021	16,740	0,271	0,073	16,209	17,271	61,792	0,000
Gélinas et al., 2021-1	18,250	0,440	0,194	17,388	19,112	41,484	0,000
Gélinas et al., 2021-2	16,880	0,159	0,025	16,569	17,191	106,384	0,000
Günaydin, 2021	16,120	0,299	0,089	15,534	16,706	53,931	0,000
Gündogan, 2021	17,810	0,223	0,050	17,372	18,248	79,766	0,000
Hasan et al., 2021	17,630	0,214	0,046	17,211	18,049	82,440	0,000
Hwang et al., 2021-1	18,900	0,378	0,143	18,158	19,642	49,954	0,000
Hwang et al., 2021-2	19,820	1,923	3,699	16,050	23,590	10,305	0,000
Izhar et al., 2021	18,040	0,241	0,058	17,568	18,512	74,977	0,000
Kakodkar et al., 2021	18,690	0,396	0,157	17,914	19,466	47,216	0,000
Karadem et al., 2021	16,000	0,238	0,057	15,533	16,467	67,149	0,000
Karahan et al., 2021	18,300	0,553	0,306	17,216	19,384	33,073	0,000
Karatas et al., 2021	18,410	0,164	0,027	18,089	18,731	112,413	0,000
Karawekpanyawong et al., 2021	25,600	0,397	0,158	24,822	26,378	64,498	0,000
Kardas, 2021	15,940	0,228	0,052	15,492	16,388	69,808	0,000
Kayis et al., 2021	18,190	0,204	0,041	17,791	18,589	89,352	0,000
Kukreti et al., 2021	15,400	0,082	0,007	15,239	15,561	187,072	0,000
Kuru Alici & Öztürk Çopur, 2021	18,950	0,458	0,209	18,053	19,847	41,411	0,000
Landa-Blanco et al., 2021	19,170	0,303	0,092	18,577	19,763	63,361	0,000
Mahmoud et al., 2021	22,260	0,292	0,085	21,688	22,832	76,328	0,000
Majeed et al., 2021	27,420	0,202	0,041	27,024	27,816	135,826	0,000
Mamun, 2021	21,300	0,060	0,004	21,183	21,417	355,330	0,000
Matsushima et al., 2021	17,530	0,217	0,047	17,105	17,955	80,878	0,000
Mekori-Domachevsky et al., 2021-1	14,000	1,357	1,841	11,341	16,659	10,318	0,000
Mekori-Domachevsky et al., 2021-2	14,000	1,265	1,600	11,521	16,479	11,068	0,000
Mistry et al., 2021	19,400	0,190	0,036	19,028	19,772	102,167	0,000
Montag et al., 2021	17,870	0,201	0,041	17,475	18,265	88,707	0,000
Montefinese et al., 2021	13,560	0,648	0,420	12,290	14,830	20,926	0,000
Mosazadeh et al., 2021	19,690	0,220	0,048	19,259	20,121	89,505	0,000
Olapegba et al., 2021	22,740	0,382	0,146	21,991	23,489	59,518	0,000
Osagiator Ariyo et al., 2021	16,910	0,294	0,086	16,334	17,486	57,563	0,000
Oti-Boadi et al., 2021	19,450	0,418	0,175	18,631	20,269	46,554	0,000
Özalp Gerçeker et al., 2021	20,100	0,284	0,081	19,543	20,657	70,702	0,000
Öztürk Altinayak & Yilar Erkek, 2021	21,700	0,139	0,019	21,428	21,972	156,468	0,000
Pavlenko et al., 2021	21,000	0,203	0,041	20,603	21,397	103,680	0,000
Peker & Cengiz, 2021	17,420	0,232	0,054	16,965	17,875	74,994	0,000
Piqueras et al., 2021	15,170	0,174	0,030	14,830	15,510	87,337	0,000
Raslan et al., 2021	29,520	0,278	0,078	28,974	30,066	106,018	0,000
Rodriguez-Hidalgo et al., 2021	14,370	0,213	0,045	13,953	14,787	67,572	0,000
Sharifi et al., 2021	22,900	0,325	0,106	22,263	23,537	70,464	0,000
Siddique et al., 2021	18,970	0,295	0,087	18,391	19,549	64,243	0,000
Soares et al., 2021	16,060	0,161	0,026	15,744	16,376	99,470	0,000
Sotomayor-Beltran et al., 2021	24,040	0,233	0,054	23,583	24,497	103,117	0,000
Suhail et al., 2021	14,530	0,440	0,194	13,667	15,393	33,008	0,000
Sürme et al., 2021	19,250	0,238	0,057	18,784	19,716	80,967	0,000
Takeda et al., 2021	16,200	0,166	0,028	15,875	16,525	97,573	0,000
Tan et al., 2021	17,100	0,307	0,094	16,498	17,702	55,699	0,000
Teng et al., 2021	22,540	0,536	0,287	21,489	23,591	42,044	0,000
Terzic-Supic et al., 2021	12,910	0,108	0,012	12,697	13,123	119,050	0,000
Ullah et al., 2021	15,180	0,173	0,030	14,842	15,518	87,951	0,000
Ünver & Yenigün, 2021	25,090	0,513	0,263	24,085	26,095	48,916	0,000
van de Venter et al., 2021	22,720	0,436	0,190	21,866	23,574	52,157	0,000
Van Pham et al., 2021	21,660	0,205	0,042	21,258	22,062	105,542	0,000
Wakashima et al., 2020	21,250	0,254	0,064	20,753	21,747	83,788	0,000
Yadav et al., 2021	18,100	0,179	0,032	17,750	18,450	101,302	0,000
Yasar Can & Dilmen Bayar, 2021	18,530	0,492	0,242	17,566	19,494	37,684	0,000
Yildirim & Güler, 2021	18,880	0,533	0,284	17,835	19,925	35,414	0,000
Yoldas Ilkaç et al., 2021	17,800	0,283	0,080	17,245	18,355	62,861	0,000
Midorikawa et al., 2021	16,670	0,059	0,003	16,554	16,786	282,388	0,000
Stanculescu, 2021	14,110	0,198	0,039	13,723	14,497	71,411	0,000
Morales-Rodriguez., 2021	14,900	0,430	0,185	14,057	15,743	34,645	0,000
Abuhammad et al., 2021	21,800	0,188	0,035	21,432	22,168	116,233	0,000
Giordani et al., 2021a	19,700	0,078	0,006	19,547	19,853	253,137	0,000
Giordani et al., 2021b	20,500	0,295	0,087	19,922	21,078	69,531	0,000
Gasparro et al., 2020	15,030	0,201	0,040	14,636	15,424	74,766	0,000
Salehi et al., 2020	22,500	0,396	0,157	21,724	23,276	56,821	0,000
Kaya et al., 2020	19,100	0,198	0,039	18,712	19,488	96,446	0,000
Cavalheiro & Sticca, 2020	15,760	0,330	0,109	15,113	16,407	47,749	0,000
Yalçin et al., 2021	18,410	0,257	0,066	17,907	18,913	71,772	0,000
	18,962	0,272	0,074	18,429	19,495	69,722	0,000

Figure2-1. Forest plot for the mean of COVID-19 related fear

Study name	Mean	Standard error	Variance	Lower limit	Upper limit	Z-Value	p-Value
Ograþ & Yildirim, 2021	7,530	2,020	4,080	3,571	11,489	3,728	0,000
Mohanty et al., 2021	2,070	0,880	0,774	0,345	3,795	2,352	0,019
Özsoy et al., 2021	5,120	3,300	10,890	-1,348	11,588	1,552	0,121
Pressley et al., 2021	3,090	0,690	0,476	1,738	4,442	4,478	0,000
Aydin et al., 2021	9,660	6,060	36,724	-2,217	21,537	1,594	0,111
Chen et al., 2021	1,400	3,050	9,303	-4,578	7,378	0,459	0,646
van de Venter et al., 2021	12,440	5,320	28,302	2,013	22,867	2,338	0,019
Sarigedik & Ölmez, 2021	2,280	3,510	12,320	-4,599	9,159	0,650	0,516
Abroshan et al., 2021	3,760	5,170	26,729	-6,373	13,893	0,727	0,467
Ranieri et al., 2021	5,800	4,700	22,090	-3,412	15,012	1,234	0,217
Alshehry et al., 2021	3,950	4,770	22,753	-5,399	13,299	0,828	0,408
Abd El Kader & Faramawy, 2021	14,750	3,330	11,089	8,223	21,277	4,429	0,000
Fard et al., 2021-2	2,800	2,300	5,290	-1,708	7,308	1,217	0,223
Bajracharya et al., 2021	3,490	2,800	7,840	-1,998	8,978	1,246	0,213
Eskut et al., 2021	1,310	2,420	5,856	-3,433	6,053	0,541	0,588
Vinaccia et al., 2021	2,460	3,180	10,112	-3,773	8,693	0,774	0,439
García-Reyna et al., 2021	2,150	3,520	12,390	-4,749	9,049	0,611	0,541
Ho & Moscovitch, 2021	6,750	4,800	23,040	-2,658	16,158	1,406	0,160
Albery et al., 2021	0,840	1,850	3,423	-2,786	4,466	0,454	0,650
Kurata et al., 2021-1	7,500	5,600	31,360	-3,476	18,476	1,339	0,180
Kurata et al., 2021-2	0,600	1,400	1,960	-2,144	3,344	0,429	0,668
Kurata et al., 2021-3	2,300	3,700	13,690	-4,952	9,552	0,622	0,534
Kurata et al., 2021-4	5,300	5,300	28,090	-5,088	15,688	1,000	0,317
Curtis et al., 2021	0,840	2,090	4,368	-3,256	4,936	0,402	0,688
Dirlik et al., 2021	2,160	2,460	6,052	-2,662	6,982	0,878	0,380
Enea et al., 2021	4,140	5,040	25,402	-5,738	14,018	0,821	0,411
Nazari et al., 2021	2,460	0,650	0,423	1,186	3,734	3,785	0,000
Kameg et al., 2021	2,850	3,820	14,592	-4,637	10,337	0,746	0,456
Vu & Bosmans, 2021	2,620	4,110	16,892	-5,435	10,675	0,637	0,524
Ashoor et al., 2021	1,580	2,980	8,880	-4,261	7,421	0,530	0,596
Yurttas et al., 2021-1	1,620	3,030	9,181	-4,319	7,559	0,535	0,593
Yurttas et al., 2021-2	1,550	2,710	7,344	-3,762	6,862	0,572	0,567
Yurttas et al., 2021-3	1,810	2,640	6,970	-3,364	6,984	0,686	0,493
Majeed et al., 2021	3,240	4,210	17,724	-5,011	11,491	0,770	0,442
Arslan et al., 2021	2,510	3,850	14,823	-5,036	10,056	0,652	0,514
Kubb & Foran, 2020	0,670	1,800	3,240	-2,858	4,198	0,372	0,710
Srivastava et al., 2020	1,090	0,120	0,014	0,855	1,325	9,083	0,000
Haddad et al., 2021	1,200	2,400	5,760	-3,504	5,904	0,500	0,617
Pegorari et al., 2021	1,010	1,900	3,610	-2,714	4,734	0,532	0,595
Evren et al., 2020	6,660	2,650	7,023	1,466	11,854	2,513	0,012
Skalski et al., 2021	3,690	4,440	19,714	-5,012	12,392	0,831	0,406
	2,498	0,383	0,147	1,747	3,249	6,518	0,000

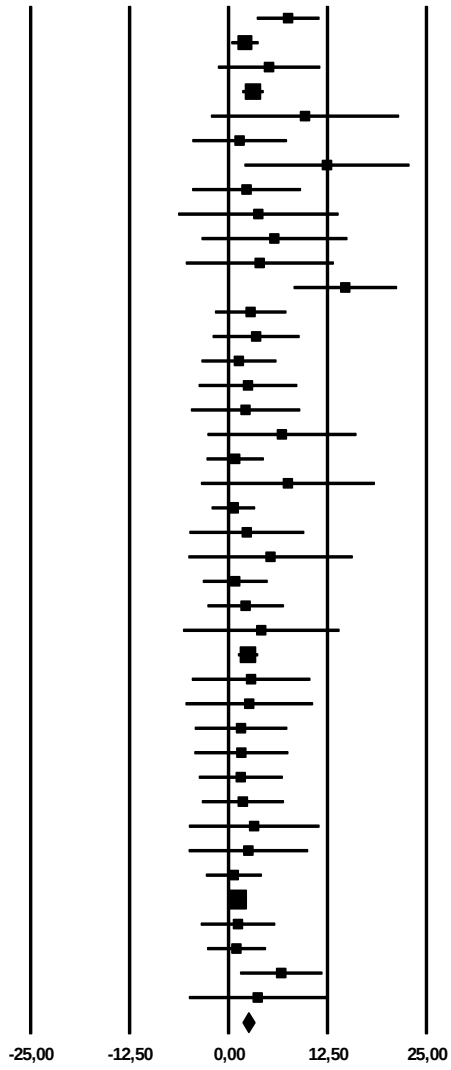


Figure2-2. Forest plot for the mean of COVID-19 related anxiety