



Psychometric properties of the COVID stress scales (CSS) within Arabic language in a Palestinian context

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Accepted: 22 April 2021 / Published online: 19 May 2021

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Abstract

The main goal of this study was to examine the psychometric properties of the COVID Stress Scales (CSS) in the Palestinian context and the factorial structure of the instrument. The CSS, a newly emerging internationally standardized measure of stress related to being exposed to or contracting COVID-19, was translated and validated for a Palestinian context to ensure that it can be used to measure COVID-19 stress. The sample of the study consisted of 860 Palestinian adults living in the West Bank of Palestine. Participants' age ranged from 20 to 48 years old ($M = 34.7$, $SD = 13.46$). They were all recruited from online advertisements, e-mail campaigns, blogs, social media, and SMS campaigns. The CSS was found to be valid in the Arabic language within a Palestinian context. The confirmatory factor analysis yielded six factors: (1) Fears about the dangerousness of COVID-19, (2) fears about the personal social, and economic consequences of COVID-19, fears of disruption in the supply chain, fears of looting or rioting, (3) COVID-19-xenophobia, fears that foreigners are sources of COVID-19, (4) fears about sources of COVID-19-related contamination, (5) traumatic stress symptoms related to COVID-19, and (6) COVID-19-related checking which is consistent with the ordinal structure of the scale. The CSS demonstrated a high level of validity and reliability in a Palestinian context and therefore can be considered for future studies as the COVID-19 pandemic persists. Further investigations using the Arabic Language of CSS may have far-reaching implications for measuring and combating the stress of COVID-19 at a personal and societal level for uniquely at-risk populations such as in the occupied territories of Palestine.

Keywords Covid-19 · Stress of disease · Palestine · Test validation

Introduction

A novel coronavirus that was termed COVID-19 by the World Health Organization (WHO) is a “pneumonia of

unknown origin” responsible for a worldwide outbreak (Sohrabi et al., 2020). COVID-19 has spread internationally at an unprecedented rate (Novel, 2020). As of 22 February 2021, 113,472,187 confirmed infected cases, including 2,520,653 deaths globally (World Health Organization (WHO), 2020a). Out of these confirmed cases, 206,438 were in the occupied territories of Palestine, including 2,236 deaths (World Health Organization (WHO), 2020b).

Due to COVID-19 being highly transmittable, it became a pandemic (Shereen et al., 2020), and all aspects of life were impacted. Everything from how people earn their livelihood, socialized and entertained themselves to worries about financial ruin (Polizzi et al., 2020). With the overwhelming news coverage (Dong & Zheng, 2020), many psychological impairments, such as stress, were found to be associated with the outbreak of COVID-19. Stress occurs when an individual perceives

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that the environmental demands strain or exceed their capacity to effectively adapt (Cohen et al., 2007). For example, during the disease's initial stage, Chinese people showed high levels of stress, anxiety, and depression (Wang et al., 2020). Subsequently, the outbreak led to stress, anxiety, depressive symptoms, insomnia, denial, anger and fear for people globally (Torales et al., 2020). In a nationwide survey of psychological distress among Italian citizens during the COVID-19 pandemic, stress, anxiety, and depression was associated with the disease's uncontrolled spread (Mazza et al., 2020).

COVID-19 is expected to be an additional factor that may trigger stress among Palestinians when they are already experiencing multiple environmental stressors (e.g., militarization, poverty, lack of employment opportunities, cultural pressures, etc.). Fewer positive social outlets due to the restrictions on movement between communities, a lack of recreational facilities, and cultural standards of gender separation resulting from 70 years of military occupation affect the Palestinian lives (Mahamid & Berte, 2019; Mahamid & Berte, 2020). Mahamid and Bdier (2020) found that Palestinians got medium scores on perceived stress when the first cases of Covid-19 infection confirmed in Palestine. Furthermore, Mahamid et al. (2020a) found that Palestinians have experienced stress moderately during the second wave of COVID-19. Mahamid and Bdier (2020) investigated the relationship between the fear of COVID-19 and mental health outcomes among psychosocial service providers in Palestine. They found that psychosocial service providers had high levels of stress related to the fear of COVID-19.

Taylor et al. (2020) developed and validated a scale to measure stress-related COVID-19 in the Canadian and American populations. The scale includes six domains; (1) Fears about the dangerousness of COVID-19, (2) fears about sources of COVID-19-related contamination (i.e., objects, surfaces), (3) COVID-19-xenophobia (i.e., fears that foreigners are sources of COVID-19), (4) fears about the personal social and economic consequences of COVID-19 (e.g., fears of disruption in the supply chain, fears of looting or rioting), (5) COVID-19-related checking (e.g., checking news media or social media, seeking reassurance from friends or medical professionals), and (6) traumatic stress symptoms related to COVID-19 (e.g., unwanted intrusive thoughts or nightmares relating to COVID-19). Items were rated on a 5-point scale ranging from 0 (not at all) to 4 (extremely). A recent study from Arslan et al. (2020) tested the psychometric properties of the COVID-19 Stress Scale (CSS) among the adults' Turkish population. It was found that

CSS is a valid and reliable measurement tool for assessing COVID-19 related stress among the Turkish population.

Although the scale was found to be valid and reliable in the Canadian, American and Turkish population (Arslan et al., 2020; Taylor et al., 2020), it is crucial to test the psychometric proprieties of this scale in the Arabian-Palestinian context. In fact, it is daily facing various environmental stressors such as militarization, poverty, lack of employment opportunities, and cultural pressures. Furthermore, many Palestinians work in Israeli settlements in which the disease is aggressively spreading. In turn, many of the Palestinian workers are exposed to COVID-19 infection at their workplace (Mahamid & Berte, 2019). The spread of the virus in Palestine may have a more significant impact on the population due to the overcrowding in the internally displaced refugee camps, lack of medical care, and limited ventilators (Mahamid et al., 2020b; Mahamid & Bdier, 2021).

The main goal of this study is to examine the psychometric properties of the COVID-19 Stress Scale (CSS) in the Palestinian context and the reliability and construct validity of the instrument. Namely, The CSS, a newly emerging internationally standardized measure of stress related to either exposure or contact with COVID-19, will provide valuable information on the stress of COVID-19 in the Palestinian context to facilitate public health interventions on mitigating the public's anxiety during the pandemics. Based on the previous literature, the current study hypothesized the following: (a) the CSS would predict a six-factor structure in assessing the covid-19 stress in the Palestinian context, (b) the CSS would be a reliable instrument in assessing the Covid-19 stress in the Palestinian context, (c) the CSS would be a valid instrument in assessing the Covid-19 stress in the Palestinian context.

Methodology

Participants

Participants were recruited from online advertisements, e-mail campaigns, blogs, social media, and SMS campaigns. The aims and procedures of the study were explained online. Participants who were interested in participation signed online informed consent and responded to the questionnaires. Participants were 860 Palestinians involving 189 men (22%), 671 women (78%), participants' age ranged from 20 to 48 years old ($M = 34.7$, $SD = 13.46$). Eighty-five per cent were holding a college

degree, while 15% were not. Additionally, 22% of participants were smokers, and 88% were nonsmokers. Inclusion in the study required participants to be: 1) Palestinian, 2) Native Arabic speakers, and 3) Living in the West Bank of Palestine during the spread of COVID-19.

Instruments

To test the concurrent validity of CSS, the Fear of Coronavirus-19 Scale (FCV-19S) and the Depression, Anxiety and Stress Scale (DASS21) were administered.

The FCV-19S is a self-report measure aimed at assessing the fears of COVID-19 in general asymptomatic populations. The scale consists of seven items about fear reactions towards being exposed or contaminated by COVID-19 (e.g., “I am most afraid of coronavirus-19”). Participants responded on a five-item Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total score ranged between 7 and 35, with a higher sum score indicating higher fear of COVID-19 (Ahorsu et al., 2020). In the present study, the Cronbach’s alpha of FCV-19S indicated excellent internal consistency ($\alpha = .85$).

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains seven items. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, and inertia.

The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/ over-reactive and impatient. In completing the DASS, the individual must indicate the presence of a symptom over the previous week. Each item is scored from 0 (“did not apply to me at all over the last week”) to 3 (“applied to me very much or most of the time over the past week”). The DASS’s essential function is to assess the severity of the core symptoms of Depression, Anxiety and Stress. The scale to which each item belongs is indicated by the letters D (Depression), A (Anxiety) and S (Stress). Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items (Gomez, 2016). In the present study, the Cronbach’s alpha of DASS21 indicated excellent internal consistency ($\alpha = .90$).

Research Procedures

This study was conducted in July of 2020 and targeted Palestinian adults during the spread of COVID-19. The sample was recruited online using convenience sampling techniques. All participants were provided with information that enabled them to decide whether they wanted to participate in the research. Participants were provided with descriptions of the scales and the purpose of the research. Participants who agreed to participate in the research signed informed consent. The research was conducted in line with the American Psychological Association’s ethical guidelines (APA, , 2010) and the Declaration of Helsinki (2013). The study was submitted for review by An-Najah Institutional Review Board (IRB) and received approval before data collection was obtained. Informed consent was registered electronically before the data was collected from the participants.

The CSS was translated from English into Arabic. Five Arab professionals evaluated the translated version considered experts in Psychology, Counseling, Arabic Language, and Education. The expert team evaluated the clarity and relevance of the translation and questions. After completion, the questionnaire’s translated draft was back-translated into English by an independent professional translator (American Psychological Association, 2010). The translated version was then pilot tested among 70 participants and refined further for clarity according to their comments. The final version of the Palestinian CSS can be found in the appendix, Table 5.

Data Analysis

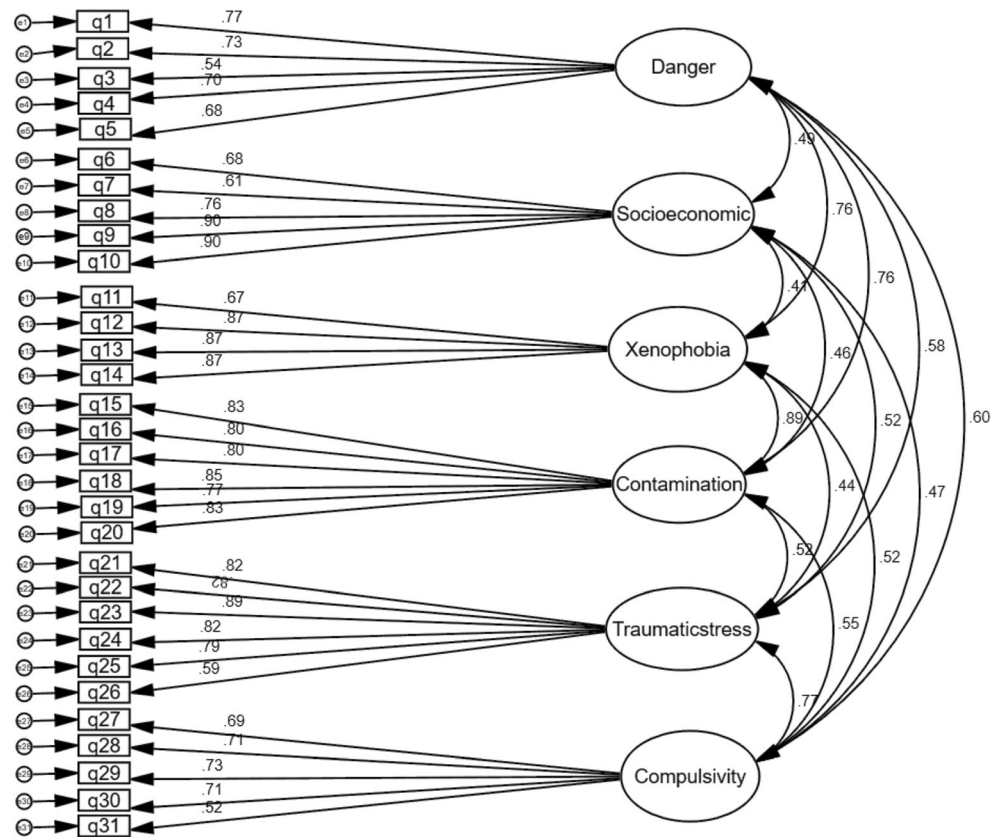
A six-factor model was tested through confirmatory factor analysis using AMOS 25 software. Descriptive statistics were used to test the characteristics of the CSS in Arabic for a Palestinian context. Means, standard deviations, and independent-sample *t*-test were used to

Table 1 Covariances created in the six-scale construct (n = 860)

Estimate	Standardized	S.E.	C.R.	<i>P</i>
Danger	.745	.059	12.671	***.001
Socio-economic	.598	.054	11.052	***.001
Xenophobia	.837	.078	10.772	***.001
Contamination	.921	.071	14.674	***.001
Traumatic stress	.913	.063	14.406	***.001
Compulsive checking	.642	.060	10.787	***.001

****P* significance $\leq .001$

Fig. 1 Confirmatory factor analysis of the COVID-19 stress scale



examine differences in the stress of the COVID-19 scale among our participants through demographic variables including gender, educational status and smoking status, all relevant as risk factors to COVID infection. Moreover, concurrent validity was tested throughout the correlation test between CSS, FCV-19S and DASS21 scales. Cronbach's Alpha and Guttman Split-Half were conducted to test the scale's internal consistency, and test-retest reliability was used to ensure that the measurements obtained by the scale in one sitting are both representative and stable over time (Table 1, Fig. 1).

Table 2 Pearson Correlation Coefficients between CSS, FCV-19S and DASS21 scales (n = 860)

Scale	1	2	3	4	5
1. CSS		.71**	.54**	.50**	.46**
1. FCV-19S			.56**	.62**	.66**
3. Stress				.80**	.85**
4. Anxiety					.73**
5. Depression					

**correlation is significant at the 0.01 level (2-tailed).

Findings

Confirmatory Factor Analysis

Before conducting the confirmatory factor analysis (CFA), the item-total correlation was calculated using the total sample data ($N=860$). Accordingly, 31 items correlated positively and significantly with CSS's total score and fit together conceptually (DeVon et al., 2007). The six AMOS model factors are; Danger (D), socioeconomic consequences (SE), xenophobia (X), contamination (C), traumatic stress (T), compulsive checking (CH). While the original scale prepared by Taylor et al. (2020) yielded a 6-factor, after CFA, the final version consisted of five factors that combine danger and contamination factors to create one factor. Besides, in our study, CFA yielded a stable 6-factor solution with 31 items confirming the Taylor and colleagues' EFA. The resulting incremental indices values (CFI = .89, GFI = .90, NFI = .87, RFI = .86, IFI = .90, and TLI = .88) were all $\geq .90$, indicating a good model fit. The RMSEA value was 0.057, less than the cut-off value of close to 0.06. Lastly, the item-loading values ranged from 0.54 to 0.90, within the acceptable range of high loading values (all >0.50).

Table 3 Reliability indicators of CSS (n = 860)

Reliability	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Test-retest	Guttman Split- Half	α
I am worried about catching the virus	.946	.662	.821		
I am worried that I 'cannot keep my family safe from the virus	.947	.595	.813		
I am worried that our healthcare system won't be able to protect my loved ones	.948	.426	.814		
I am worried that basic hygiene (e.g., handwashing) is not enough to keep me safe from the virus	.947	.584	.824		
I am worried that social distancing is not enough to keep me safe from the virus	.947	.561	.816		
I am worried about grocery stores running out of food	.948	.496	.834		
I am worried that grocery stores will close down	.949	.382	.826		
I am worried about grocery stores running out of cleaning or disinfectant supplies	.947	.542	.842		
I am worried about grocery stores running out of cold or flu remedies	.947	.583	.819		
I am worried about pharmacies running out of prescription medicines	.947	.567	.782		
If I went to a restaurant that specialized in foreign foods, I'd worried about catching the virus	.947	.620	.821		
I am worried about coming into contact with foreigners because they might have the virus	.946	.686	.778		
If I was in an elevator with a group of foreigners, I'd be worried that 'they're infected with the virus	.946	.660	.842		
I am worried that foreigners are spreading the virus because 'they're not as clean as we are	.946	.706	.815		
I am worried that if I touched something in a public space (e.g., handrail, door handle), I would catch the virus	.946	.686	.813		
I am worried that if someone coughed or sneezed near me, I would catch the virus	.946	.675	.768		
I am worried that people around me will infect me with the virus	.946	.722	.743		
I am worried about taking change in cash transactions	.946	.694	.783		
I am worried that I might catch the virus from handling money or using a debit machine	.946	.631	.814		
am worried that my mail has been contaminated by mail handlers	.946	.712	.864		
I had trouble concentrating because I kept thinking about the virus	.946	.718	.847		
Disturbing mental images about the virus popped into my mind against my will	.946	.720	.794		
I had trouble sleeping because I worried about the virus	.947	.620	.818		
Reminders of the virus caused me to have physical reactions, such as sweating or a pounding heart	.947	.563	.735		
I had bad dreams about the virus	.947	.534	.754		
Searched the Internet for treatments for COVID-19	.948	.494	.849		
YouTube videos about COVID-19	.948	.506	.873		
Asking health professionals (e.g., doctors or pharmacists) for advice about COVID-19	.948	.509	.824		
Checking your own body for signs of infection (e.g., taking your temperature)	.947	.563	.857		
Seeking reassurance from friends or family about COVID-19	.947	.568	.779		
Social media posts concerning COVID-19	.948	.487			

Table 3 (continued)

Reliability	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Test-retest	Guttman Split-Half	α
Total score			.819		
948			.812	.861	.-

Concurrent Validity

Concurrent validity estimates performance on various tests simultaneously (Cohen & Swerdlik, 2005). Person Correlation Coefficient to determine if the scale can detect the stress of COVID-19 was calculated between the CSS, the fear of COVID-19 scale (FCV-19S), and The Depression Anxiety Stress Scale (DASS-21) as shown in Table 2.

The CSS correlated significantly and positively with FCV-19S ($r = .71; p < .01$), moreover, the CSS positively correlated to stress ($r = .54; p < .01$), anxiety ($r = .50; p < .01$) and depression ($r = .46; p < .01$). This result indicates a high level of concurrence with the CSS.

Reliability of CSS Scale

Reliability is the degree to which a construct's measure is consistent or dependable (Varni, Seid, & Kurtin, 2001). Cronbach's alpha, Guttman Split-Half and test-retest methods were calculated To test the scale's reliability, as shown in Table 3.

The reliability was confirmed by a standardized Cronbach's Alpha of .948, Split – Half coefficient of .861. Moreover, Cronbach's Alpha if Item Deleted confirms the acceptability of all the items in the CSS. The scale was readministered to assess test-retest reliability to 70 participants three weeks after the first administration. The correlation between the CSS scores at time one and at time two was .812, which confirms that the CSS captures a stable construct.

No significant differences were found between female and male respondents in COVID-19 stress ($t = .25; p > .05$). In

regard to their academic status, again, no significant differences were found in COVID-19 stress between respondents without a college degree and respondents with a college degree ($t = -.91; p > .05$). Moreover, smoking respondents reported more stress than nonsmokers ($t = 2.10; p < .043$). Table 4 shows the differences in the CSS related to the three demographic variables.

Discussion

In the current study, the CSS was translated and validated to be used as a viable measure for testing and examining stress related to the virus outbreak in a Palestinian context. The CSS was internally reliable, as shown by standardized Cronbach's alpha and Split – Half coefficients. The measure showed a robust concurrent validity because of a proven positive correlation with FCV-19S, measuring the fear of COVID-19, and Depression Anxiety Stress Scale (DASS-21), detecting individuals' psychological distress.

Results indicated no significant effects due to independent variables such as gender and education. Women and men demonstrated similar anxiety levels regarding the stress of COVID, and individuals with and without a college degree reported an equal level of stress about COVID. Finally, smoking status had a significant predictive effect on the COVID stress levels, whereas smokers showed higher COVID stress levels than nonsmokers.

In line with international scientific research carried out in different contexts, our study presents robust evidence that

Table 4 Differences in the stress of COVID-19 by gender, academic status and smoking status (n = 860)

Variable	Gender		Academic status		Smoking status	
	Male	Female	Without collogue degree	With collogue degree	Smokers	Nonsmokers
Mean (SD)	1.72(.76)	1.74(.74)	1.75(.87)	1.68(.72)	2.30(.80)	1.80(.77)

CSS can be a practical instrument testing COVID stress in an Arabic speaking Palestinian population (Asmundson et al., 2020; Montano & Acebes, 2020; Pakpour et al., 2020). The development of a pandemic-specific measure such as the CSS can be considered a supportive tool in identifying individuals at risk for adverse emotional reactions both during and post-pandemic; subsequently, aiding public health officials in allocating resources for mental health interventions (Taylor et al., 2020).

Regarding the dimensionality of the scale, the CSS confirmed a six-factor structure in assessing the stress of COVID-19 in the Palestinian context, which is consistent with previous studies (Arslan et al., 2020; Taylor et al., 2020), and proposes that the CSS is an appropriate measure to assess COVID-19 related stress in affected populations, such as Palestinian society. Since people in Palestine suffer from multiple stressors represented by occupation, poverty, and gender-based violence, multidimensional measures concerning stressful life events may suit the Palestinian context more than measures with the one-factor solution.

Due to the conceptualization of CSS itself, some limitations to our study must be acknowledged and discussed. The scale is not based on mutualized diagnostic criteria (i.e., DSM-5 or ICD-11), resulting in a lack of accuracy in the construct validity. The sample was significantly skewed toward an educated population as the recruitment occurred online, possibly excluding individuals with lower socioeconomic and educational status. The sample was unbalanced due to having a higher number of women. Furthermore, since the study was based on self-referral, the study could have attracted individuals who were thinking about and worried about the topic and may not represent the general population.

Lastly, the study was entirely based on quantitative data collected via self-report instruments completed by participants. Therefore, though the data is personal and idiosyncratic, the participants may not have provided the details or thoroughly used the concepts that the researcher was interested in exploring.

Future research is needed to advance the understanding of COVID stress in the Palestinian context and shed light on the stress-related consequences of COVID in Palestine as well as its peculiar cultural variables. Future research could investigate the CSS by comparing it to different anxiety assessment tools and potentially establishing it as a golden standard in addition to the FCV-19S and the DASS21. In the future, it is crucial to take into account and expand the investigation to other

contexts within the occupied territories of Palestine, such as the Gaza Strip.

Conclusion

There has not been a global epidemic in over 100 years. The psychological effects, the wide range of symptoms and potential deadly outcomes have not been previously studied, resulting in a lack of clear and sufficient information. Consequently, guidelines and policies are not ready to respond to the psychological needs posed by the intense spread and impact of this virus.

In geopolitically at-risk environments, such as Palestine, the situation is far more complex. People residing in the occupied Palestinian territories must deal with high levels of environmental stress (e.g., militarization, poverty, lack of employment opportunities, cultural pressures, etc.), fewer positive social opportunities due to the severe restrictions on movement between communities, a lack of health facilities, and severely limited resources available for creating effective testing programs. The risk of exposure to the infection is exacerbated by a hostile foreign occupation that amplifies fear, uncertainty, rumours and conspiracy theories that are not supported by evidence. Ultimately, uncontrolled fear and stress interfere with public health measures and evidence-based protocols to protect the population. In this condition, the spread of coronavirus in Palestine could amplify the risk of maladaptive and stressful symptoms in an already compromised living environment. Therefore understanding stress-related and COVID-19 associated outcomes is an urgent priority in Palestine (Mahamid & Bdier, 2020; Mahamid & Berte, 2019; Mahamid & Berte, 2020).

Declarations

Conflict of Interest The authors declare that they have no conflict of interest. No funding was received for this study.

Ethical Approval All procedures performed in this study involving human participants were following the ethical standards of An-Najah University's Research Ethics Board, the American Psychological Association (APA, 2010) and the 2013 Helsinki Declaration.

Informed Consent Informed consent was obtained from all participants.

The datasets generated during and/or analysed during the current study are available in the OSF repository (<https://osf.io/rgtd3/quickfiles>).

Appendix

Table 5 CSS in a Palestinian Context

رقم	الفقرة	أبدا	نادرا	أحيانا	غالبا	دائما
1	أنا قلق من الإصابة بفيروس كورونا					
2	أنا قلق من أنني لا أستطيع المحافظة على عائلتي في مأمن من الإصابة بفيروس					
3	أنا قلق من أن نظام الرعاية الصحية الموجود لدينا لن يكون قادرا على حماية الأشخاص الذين أحبهم					
4	أشعر بالقلق من أن النظافة الأساسية (على سبيل المثال غسل اليدين) ليست كافية لحمايتي من الفيروس					
5	أنا قلق من أن المحافظة على المسافة الاجتماعية ليست كافية لحمايتي من الفيروس					
6	أنا قلق من نفاذ الطعام والمواد الغذائية من محلات البقالة					
7	أشعر بالقلق من إغلاق المتاجر والبقالات					
8	أنا قلق من نفاذ مواد التنظيف أو المطهرات من محلات البقالة والمتاجر					
9	أشعر بالقلق من نفاذ علاجات نزلات البرد والإنفلونزا من الصيدليات					
10	أنا قلق من نفاذ الأدوية التي تسكن ألم وصفات طبية من الصيدليات					
11	عندما أذهب إلى المطعم أكون قلقا من انتقال الفيروس لي عن طريق الطعام					
12	أشعر بالقلق من التواصل وجهها لوجه مع الآخرين والغريباء نظرا لأنهم قد يكونوا حاملين للفيروس					
13	عندما أستخدم المصعد مع مجموعة من الأشخاص فأنني أشعر بالقلق من الإصابة بفيروس كورونا					
14	أشعر بالقلق من انتقال الفيروس لي من قبل الآخرين لأنهم لا يستخدمون طرق وقاية كافية تمنع إصابتهم بالفيروس					
15	أنا قلق من أنني إذا لمست شيئا في مكان عام (على سبيل المثال درابزين مقبض باب) فسوف أصاب بالفيروس					
16	أشعر بالقلق من أنه إذا سعل شخص ما أو عطس بالقرب مني فسوف أصاب بالفيروس					
17	أشعر بالقلق من أنه ينتقل الفيروس لي عن طريق الأشخاص المحيطين بي					
18	أشعر بالقلق من أنه ينتقل الفيروس لي عن طريق النقود التي يتم تبادلها بين الناس					
19	أشعر بالقلق من أنه ينتقل الفيروس لي عند استخدام الصراف الآلي					
20	أشعر بالقلق من أنه ينتقل الفيروس لي من البضائع والمواد التي أقوم بشرائها من السوق					
21	أواجه صعوبة في التركيز لأنني أظن أفكر بالفيروس					
22	تسيطر على تفكير مجموعة من الأفكار والصور الذهنية حول الفيروس والتي لا أستطيع التحكم بها					
23	أواجه صعوبة في النوم لأنني قلق من الإصابة بالفيروس					
24	أشعر بتعرق في أطرافتي وزيادة في دقات قلبي عندما أفكر بالفيروس					
25	كأن لدي أحلام مزعجه حول الفيروس					
26	أبحث في الإنترنت حول اللقاحات والعلاجات الممكنة لفيروس كورونا					
27	أشاهد فيديوهات حول فيروس كورونا والأشخاص المصابين					
28	أتقدم بطلب باستشارات من الأطباء والمختصين حول فيروس كورونا					
29	أتابع مؤشراتتي الجسمية (على سبيل المثال فحص درجة الحرارة) خوفا من إمكانية إصابتي بالعدوى					
30	أبحث عن دعم العائلة والأصدقاء فيما يتعلق بالتنظيم من عدم الإصابة بالفيروس					
31	أتابع وسائل التواصل الاجتماعي فيما يتعلق بأخر التحديثات والأخبار الخاصة بفيروس كورونا					

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Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

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