

CRITICAL VIEW ON PANDEMIC COVID-19 EMOTIONAL IMPACT SCALE: SYSTEMATIC REVIEW AND META-ANALYSIS

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Abstract: Coronavirus disease 2019 (Covid-19) is a main epidemic in the 21st century, that has headed to unprecedented hazards to physical and mental health generally. psychological support is delivered for patients and healthcare workers, while in the general public, the issue of mental health is significantly needed to attend to as well. The aim of this systematic review is to create reports about all present scales on the effects of Covid-19 on emotional consequences. This search systematically was directed on PubMed, Embase, Medline, Web of Science, Google Scholar, and Scopus from Inception to 2022 following the PRISMA rules. Besides, Sivilica, Irandoc, and SID manually were executed to recognize extra applicable research amongst Farsi documents. Relatively, about 19 articles were selected on the title of psychological impacts of Covid-19. A significant aim of this study is to collect all available questionnaires that examine the psychological impact of pandemics diseases in the duration time of 2019 to 2022. As result, the Corona Virus Health Impact Survey (CRISIS) V0.3, the best scale for evaluating both positive and negative emotional impacts of COVID-19 on emotional regulation. This scale is designed for adults but if delete some questions about using substances and having sex and job can use for adolescents too.

Keywords: pandemic , covid19 scale, emotional impact .

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INTRODUCTION

In December 2019, Wuhan, China, was faced with a group of abnormal pneumonia which later on 11 Feb 2020 was titled by the World Health Organization (WHO) as Coronavirus disease 2019 (COVID-19) (Xiong et al., 2020; Breaux et al., 2020). The fast-developing condition has severely changed all aspects of people's lives (Cénat et al., 2020; Ran et al., 2020). Flowingly, the worries, related to the virus outbreak, in parallel with quarantine

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lead to rising psychological distress among the general population (Salari et al.,2020; Rehman et al., 2021). Taken together, more attention is assumed to public mental health for aiding people through this tough time by most of psychologists (Murhekar et al., 2021 ;Salari et al.,2020). Scholars started to make scales that could measure the Pandemic Emotional Impact among individuals (Grover et al.,2020; Wang et al.,2020; Mazza et al.,2020; Petzold et al., 2020). The gap of this review is to find the bests and fastest way to measure the psychological impacts of covid-19 on general people to prevent and aid the psychological negative side effects of people who have encountered covid-19.The objective of this systematic review is a critical review of positive and negative aspects of all scales about Pandemic Emotional Impact. In the next stage, the reports of all scales have been written.

METHODS

In this systematic review and meta-analysis, articles that have focused on positive and negative impacts of COVID-19 among the general population which searched in the Science Direct, Embase, Scopus, PubMed, Web of Science (ISI) and Google Scholar databases, by Rayan software, and manually in Sivilika, Magiran, Irandoc, and Noormags from 2019 till 2021. In order to perform a meta-analysis of the collected studies, the random effects model was used. Moreover, data analysis was conducted using the Comprehensive Meta-Analysis (CMA) software. In the base of inclusion criteria, the titles and abstracts of articles were screened. Accordingly, the full-text papers were comprehensively screened and only articles that involved all relevant variables were selected for the final review. Grey or unpublished materials, the sample contained LGBTs or clinical patients, studies that did not examine the direct or indirect correlation between covid19 and emotion, and papers about the SARS and MERS and papers before 2022 were excluded (see Figure.1). Accordingly, the details about the research which include place, sample size, age range, and observed findings are highlighted in (Table 1).

In total, 100 publications were identified. Of those, 42 were removed after initial screening due to duplication. 34 articles were excluded based on the screening of titles and abstracts. 28 full-text articles were assessed for eligibility. There were 18 articles left out for not having a standardized/ appropriate measure, 4 articles excluded for being review papers. In the subsequent screen of the full-text, 10 studies encountered the inclusion criteria (see Figure.1). Study characteristics and primary study findings are summarized in Table 1.

Critical View on Pandemic Covid19 Emotional Impact Scale: Systematic Review and Meta-Analysis

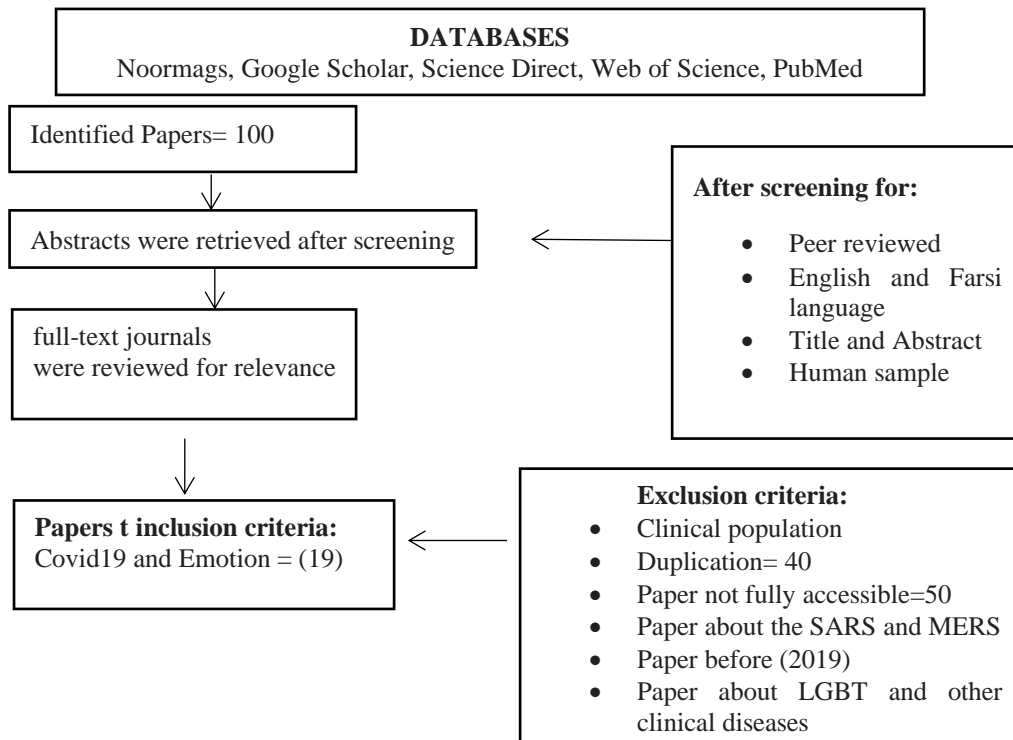


Figure 1. Evidence of Synthesis of Articles related to COVID19 and Emotional Welbeing

Table 1. Studies About The Impact of Covid-19 on Emotion

No	Name	Year	Title	Questionnaire	Positive and Negative Option Of Scales
1	Hong-juan Jiang-Jiang Nan. Zhi-yue Lv-Juan Yang	2021	Psychological impacts of the COVID-19 epidemic on Chinese people: Exposure, post-traumatic stress symptom, and emotion regulation	Expressive suppression and cognitive reappraisal The Chinese version of the Emotion Regulation Questionnaire (ERQ) consists of 10 items that measure two factors: expressive suppression (4 items) and cognitive reappraisal (6 items) . Each item of the ERQ is scored 1 (completely disagree) to 7 (completely agree). The Chinese version of the ERQ shows good validation in Chinese individuals with a Cronbach's a of 0.81 and 0.91 for expressive suppression and cognitive reappraisal, respectively.	
2	Nathaniel A. Young, Christian E. Waugh, Alyssa R. Minton,	2020	Aging, Emotion, and Coping During the COVID-19 Pandemic	Participants were asked three questions to measure their perception of their own vulnerability	Reliability analyses across these items are not reported.

Critical View on Pandemic Covid19 Emotional Impact Scale: Systematic Review
and Meta-Analysis

<p>Susan T. Charles, Claudia M. Haase, and Joseph A. Mikels,</p>				<p>to COVID-19. (“Have you been sick in the past months and think that perhaps you had COVID19?” (I’m certain I have not had COVID-19; Maybe I have had COVID-19; I’m certain I have had COVID-19).</p> <p>Next, two questions assessed perceptions of vulnerability related to contracting COVID19. how much they agreed with the statements: “I am vulnerable to getting the coronavirus” and “If I get the virus, I am vulnerable to getting very sick from it.” (Strongly Disagree) (Strongly Agree). Each item was treated as a separate scale.</p>
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3	Ukadike Chris Ugbolue- Martine Duclos- Constanta Urzeala Mickael Berthon- Nicolas Andant-Aura Bota David Thivel,Reza Bagheri,Yaodong Gu, Julien S. Baker Frédéric Dutheil Bruno Pereira Karine Rouac, Maëlys Clinchamps	2020	An Assessment of the Novel COVISTRESS Questionnaire: COVID-19 Impact on physical activity, sedentary action and psychological emotion	Descriptive statistics showing the “Prior” and “Currently” dataset summary of the VAS intensity scale for the three components/output measures.	There is not any questionnaire about covid-only measured emotion among covid and before covid
4	Mubashir Majid Baba	2020	Navigating COVID-19 with emotional intelligence	Item-wise analysis of faculty perception about their emotional intelligence during COVID-19. I am able to encourage people to take initiative (revised) : I encourage others to take initiatives for the development of the department in this difficult time of COVID-19	Only one question in eq questionnaire is revised and modified in covid19
5	Sarah Ballou,Sarah Gray, & Olafur S. Palsson	2020	Validation of the Pandemic Emotional Impact Scale	the pandemic emotional impact scale.	validated on adults only not adolescents

Critical View on Pandemic Covid19 Emotional Impact Scale: Systematic Review
and Meta-Analysis

6	Mahnaz Aliakbari Dehkordi, Tayebeh Mohtashami, & Masomeh Tadriz Tabrizi	2020	Developing, validity and validated Lifestyle Scale During COVID-19 Disease Pandemic	each of the factors healthy lifestyle (a = 0.73) happy lifestyle (a = 0.81)	Not mentioned validated among adult or adolescents
7	Leonhard K. Lades, Kate Laffan, Michael Daly, & Liam Delaney	2020	Daily emotional well-being during the COVID-19 pandemic	Emotional well-being during the COVID-19 pandemic	There is not any questionnaire about covid19, only emotional regulation scale is during pandemic days
8	Malgorzata Gambin, Malgorzata Wozniak-Prus, Marcin Sekowski, Andrzej Cudo, Ewa Pisula, Eliza Kiepora, Joanna Boruszak-Kiziukiewicz, Grazyna Kmita	2020	Factors related to positive experiences in parent-child relationship during the COVID-19 lockdown. The role of empathy, emotion regulation, parenting self-efficacy and social support	The Scale of Positive Experiences in Parent-Child Relationship during the COVID-19 lockdown Developed for purposes of this study and comprising six questions about the positive experiences in parent-child relationship during the COVID-19 lockdown: (i) My child (children) is/are happy to spend more time with me; (ii) I appreciate that I can spend more time with my child (children); (iii) There is more closeness and affection in relationship with	This is for parents only

				<p>my child /children; (iv) We discover together with my child/children new joint activities and play activities/games; (v) My child/children learns/learn new skills and is/are more creative; (vi) My child and I try to make this situation more enjoyable. Participants were asked to rate each of the questions on the 5-point Likert-type scale. Cronbach's alpha was $\alpha = 0.908$.</p>	
9	Robert Schlack et al.,	2020	Impact of the COVID-19 pandemic and the related containment measures on the mental health of children and adolescents	Children and adolescents mental health of children and adolescents in the first weeks of the COVID-19 pandemic and during the measures taken to contain it	There is not any covid questionnaire . only anxiety and depression questionnaire during first week and during covid
10	Michael L.Teeab, Cherica A.Teec Joseph, P.Anlacand Katrina Joy, G.Aligamd Patrick Wincy, C.Reyese Vipat, Kuruchitthamf,	2020	Psychological impact of COVID-19 pandemic in the Philippines	Scale-Revised (IES-R)	Socio-demographics, health status, contact history, COVID-19 knowledge and concerns, precautionary measures, information needs, the

Critical View on Pandemic Covid19 Emotional Impact Scale: Systematic Review
and Meta-Analysis

	& Roger C.Hog				Depression, Anxiety and Stress Scales (DASS-21) and the Impact of Events Scale- Revised (IES-R) ratings.
1 1	David L.Dawson Nima Golijani- Moghaddam	2020	COVID-19: Psychological flexibility, coping, mental health, and wellbeing in the UK during the pandemic	COVID-19 related distress	This questionnaire is contains only four questions and does not cover all parts and ages overallly
1 2	Emanuele Maria Giusti, Elisa Pedroli, Guido E. D'Aniello, Chiara Stramba Badiale, Giada Pietrabissa, Chiara Manna, Marco Stramba Badiale, Giuseppe Riva, Gianluca Castelnuovo, and Enrico Molinari	2020	The Psychological Impact of the COVID-19 Outbreak on Health Professionals: A Cross-Sectional Study	COVID-19 burnout emergency	levels of burnout and psychological symptoms during the COVID-19 emergency
1 3	Caiyun Zhang , MaolinYe, YunweiFu,Min yi Yang,Fen Luo, Jinhua Yuan,Qian Tao	2020	The Psychological Impact of the COVID-19 Pandemic on Teenagers in China	Impact of Event Scale-Revised	Weak part is that there is not direct questionnaire about COVID- 19
1 4	Rezaul K.Ripon, Sadia S.Mim, Antonio E.Puente, Sahada tHossain, Mahmudul H.Babor, Showkot	2020	COVID-19: psychological effects on a COVID-19 quarantined population in Bangladesh	Event Scale- Revised (IES-R)	questionnaire included questions on personal information, quarantine related knowledge but not exactly about

	Sohan, Naeem Islam				COVID-19 desease
1 5	McBride, O., Murphy, J., Shevlin, M	2020	Monitoring the psychological impact of the COVID-19 pandemic in the general population : an overview of the context, design and conduct of the COVID-19 Psychological Research Consortium (C19PRC) study	The COVID-19 Psychological Research Consortium (C19PRC)	Assess and monitor the psychological and social impact of the coronavirus (COVID-19) pandemic in the general population
1 6	Carolina S. Romero, Carlos Delgado, Juan Catalá, Carolina Ferrer, Adina Iftimi, Ana Benito, Jose de Andrés, Maria Otero	2020	COVID-19 psychological impact in 3109 healthcare workers in Spain: The PSIMCOV group	A Psychological Stress and Adaptation at work Score (PSAS) was defined combining four modified versions of validated psychological assessment tests (A) Healthcare Stressful Test, (B) Coping Strategies Inventory, (C) Font-Roja Questionnaire and (D) Trait Meta-Mood Scale.	Weak part is that there is not any direct question about COVID-19
1 7	Evelyn Bromet, Stan Colcombe, Kathy Georgiadis Klein, Giovanni Salum	2020	The CoRonavIruS Health Impact Survey (CRISIS) V0.3 Adult Self-Report Baseline Current Form	The CoRonavIruS Health Impact Survey (CRISIS) V0.3	Focused fields of interest in analyses are mood states, daily behaviors, and life changes caused by the disease. In this case, a high score indicates a high impact of covid-19 on mental health. Use for adults but if delet some questions about use

Critical View on Pandemic Covid19 Emotional Impact Scale: Systematic Review
and Meta-Analysis

					substance and sex can use for adolescents
18	Rosanna Breaux, Melissa R. Dvorsky, Nicholas P. Marsh, Cathrin D. Green, Annah R. Cash, Delshad M. Shroff, Stephen P. Becker, Natalie Buchen, Joshua M. Langberg,	2021	Prospective impact of COVID-19 on mental health functioning in adolescents with and without ADHD: protective role of emotion regulation abilities	Predictors of change in mental health functioning from pre-COVID-19 to during COVID-19	This test used : faculties in Emotion Regulation Scale–Short Form (DERS). Revised Child Anxiety and Depression Scales (RCADS). Child Concentration Inventory, Second Edition (CCI-2). Vanderbilt ADHD Diagnostic Rating Scale (VADRS). There is also not any questionnaire about covid,only before after
19	Yunus Akan	2022	COVID-19 Psychological Impact Scale	COVID-19 impact on the psychology of adults during or after the pandemic.	Adults aged 18 and over

FINDINGS AND DISCUSSIONS

Jiang et al., (2021) in the study about the Psychological influences of the Covid-19 outbreak on Chinese people has made a questionnaire about the Psychological impacts of covid19 such as exposure, post-traumatic stress symptom, and emotion regulation during Covid-19 among Chinese people consisting of 10 items that measure two factors: expressive suppression (4 items) and cognitive reappraisal (6 items). Every element is scored from 1 (totally disagree) to 7 (totally agree). The Chinese version of the scale, demonstrated worthy validation in Chinese individuals with a Cronach's 0.81 and 0.91 for expressive suppression and cognitive reappraisal, respectively. In addition, Young et al., (2020) made a questionnaire about the impact of aging,

on the emotion, and coping style of elderly people during the Covid-19 pandemic. In this scale, participants were asked perception of their vulnerability to Covid-19, but the bad part is that reliability analyses across these items are not reported.

Further, Ugbolue et al., (2020) have made a questionnaire about the impact of Covid-19 on the three components of physical activity, sedentary action, and psychological emotion. The weak part of this questionnaire is that there is not any questionnaire about Covid-19 only measured emotion among and before Covid-19. Also, there is not any reliability and a Cronbach's alpha about the questionnaire. As well, Baba (2020) made a questionnaire about navigating Covid-19 with emotional intelligence. The weak part is that only one question in the emotional intelligence questionnaire is modified in covid19. Likewise, there is not any reliability and a Cronbach's alpha about the questionnaire. Also as predictors of emotional intelligence depended on the culture, therefore, using the questionnaire must be carefully (Mousavi, 2021).

Moreover, Balloh et al., (2020) studied the validation of the Pandemic Emotional Impact Scale on adults only but not adolescents. Plus, Dehkordi et al., (2020) validated a lifestyle scale during the Covid-19 disease pandemic and each of the factors of a healthy lifestyle ($\alpha = 0.73$) and happy lifestyle ($\alpha = 0.81$) have high validity but the weak part is that not mentioned validated among adult or adolescents. In addition, Lades et al., (2020) made a scale about daily emotional well-being during the Covid-19 Pandemic. The weak part is that there is not any question about Covid-19 and only asked about the emotional regulation during pandemic days. Also, there is no validation status and categories ages. And more, Gambin et al., (2020) make factors related to positive experiences in the parent-child relationship during the Covid-19 lockdown. In this scale, components of empathy, emotion regulation, parenting self-efficacy, and social support were comprised. Cronbach's alpha was $\alpha = 0.908$. The positive part is that the validity is high but the negative part is that there is not any question about the experience of a child only the parents are asked.

Otherwise, according to a study by Mousavi, A., & Juhari, R. (2019) parent and child relationships are based on culture, most are careful to use this questionnaire. And above, Breux et al.,(2021) made a questionnaire about the potential influence of Covid-19 on mental health among ADHD and non-ADHD adolescents. This questionnaire asked about the protective role of emotion regulation and predictors of change in mental health functioning such

as (emotion regulation, child anxiety and depression, child concentration, and ADHD diagnostic) from pre-Covid-19 to during Covid-19. But there is not any straight question about covid19, only before after situation were asked.

Further, Robert Schlack et al., (2020) measured the impact of the Covid-19 pandemic on the mental health of children and adolescents in the first weeks of the Covid-19 pandemic and during the measures taken to contain it. But there is not any Covid-19 questionnaire, only anxiety and depression exist.

Accordingly, Akan (2022), made a questionnaire about the impact of COVID-19 on the psychology of adults during or after the pandemic. outcomes shows that the “COVID-19 Psychological Impact Scale” is a valid and reliable scale to adults aged 18 and above.

The scale made by Lindsay Alexander et al., (2020) is a suitable scale that assess all parts of adults life during COVID-19 pandemic. If omit some parts of this questionnaire could use it for adolescents to.

Finally, this meta-analysis is registered to avoid unnecessary repetition of studies and research for other researchers. This meta-analysis focuses on the mental health consequences of the COVID-19 pandemic. Scholarly articles that reported prevalence for mental health disorders or symptoms were selected which all published in APA.

CONCLUSION AND RECOMMENDATION

This is a systematic review that screened all existence scales that examine the psychological influences of the Covid-19 epidemic amongst the general public from 2020 till 2022. The Covid-19 pandemic characterizes an extraordinary hazard to mental health in high, middle, and low-income countries. Moreover, to flattening the curve of viral transmission, priority needs to be given to the prevention of mental disorders (e.g. major depressive disorder, PTSD, as well as suicide). Therefore, collecting and screening existing questionnaires is a great help to do this important issue.

A limited number of articles were found to accurately measure the psychological effects of Covid-19. In most cases, validity and reliability is not mentioned. The number of questions are very small. In some cases, it is not mentioned what age group the questionnaire belongs to. Researchers must take care of these issues next time to make a noble questionnaire.

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Critical View on Pandemic Covid19 Emotional Impact Scale: Systematic Review
and Meta-Analysis

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Critical View on Pandemic Covid19 Emotional Impact Scale: Systematic Review
and Meta-Analysis

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