Studi sperimentali

Italian validation of CoViD-19 Peritraumatic Distress Index and preliminary data in a sample of general population

Validazione italiana del CoViD-19 Peritraumatic Distress Index e dati preliminari in un campione di popolazione generale

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SUMMARY. Introduction. Peritraumatic distress is an important predictor of post-traumatic stress disorder and although several questionnaires are available for its measurement, none of these are specific to CoViD-19. The new CoViD-19 Peritraumatic Distress Index (CPDI), developed in China, is characterized as a rapid compilation tool (10 minutes), easily understandable and appreciated by people. Aim. The objectives of this study were: (1) the validation of the Italian version of the CPDI, and (2) the measurement of the prevalence of peritraumatic distress in this phase 1 CoViD-19. Method. CPDI has been translated using a standard forward-backward-translation procedure and offered online to 329 people (191 females and 137 males, aged 46.49 ± 13.58 years). The CPDI showed an internal-consistency of Cronbach's α=0.916. Content validity was judged satisfactory by two psychologists experienced in stress and trauma. The construct validity is given by the high correlation with the dimensions of Intrusion, Avoidance and Hyperarousal as measured by the Impact of Event Scale-Revised (r=0.63, r=0.57, r=0.71, respectively). Results. Our results are comparable to the Chinese ones. A third of people experienced symptoms of mild/moderate and severe peritraumatic distress. Females have higher scores, compared to males. Older people are more resilient, compared to younger, and those who have been in quarantine report less distress than those didn't, as evidenced by the results of the multivariate logistic regression model. High distress was associated with use of psychotropic drugs (AOR=4.28; 95% CI=1.55-11.85), sleeping remedies (AOR=4.05; 95% CI=2.07-7.94), be worried about dying in case of contagion CoViD-19 (AOR=3.33; 95% CI=1.83-6.06), female gender (AOR=2.95; 95% CI=1.58-5.53) and have a religious belief (AOR=1.97; 95% CI=1.05-3.70). To be aged 51-71 years, to have been in quarantine and to have received psychological support were variables associated with lower distress scores. Conclusions. The psychometric properties of the Italian version are satisfactory and confirm that CPDI is a tool fast, non-intrusive, administered online, and therefore 'safe' in a phase with a high risk of contagion. It allows, like a psychic thermoscan, to quickly detect the needs of the population and propose equally rapid interventions.

KEY WORDS: peritraumatic distress, PTSD, online survey, CoViD-19, CoViD-19 Peritraumatic Distress Index.

RIASSUNTO. Introduzione. Il distress peritraumatico è un importante predittore del disturbo da stress post-traumatico e sebbene per la sua misurazione siano disponibili diversi questionari, nessuno di questi è specifico per CoViD-19. Il CoViD-19 Peritraumatic Distress Index (CPDI), recentemente sviluppato in Cina, si caratterizza come strumento di rapida compilazione (10 minuti), facilmente comprensibile e apprezzato dalle persone. Scopo. Obiettivi di questo studio sono stati: 1) la validazione della versione italiana del CPDI e 2) la misura della prevalenza di stress peritraumatico in questa fase CoViD-19. Metodi. Per la traduzione del CPDI è stata utilizzata la procedura standard della forward-backward translation. Il questionario è stato poi somministrato online a 329 persone (191 di genere femminile e 137 di genere maschile, età media=46,49±13,58 anni). Il CPDI ha mostrato una coerenza interna, misurata con l'alpha di Cronbach, pari a 0,916. La validità del contenuto è stata giudicata soddisfacente da due psicologhe esperte di stress e trauma. La validità del costrutto è data dall'elevata correlazione con le dimensioni di Intrusione, Evitamento e Iperarousal come misurate dall'Impact of Event Scale-Revised (r=0,63, r=0,57, r=0,71, rispettivamente). Risultati. I risultati emersi dal nostro studio sono paragonabili a quelli cinesi. Un terzo delle persone ha manifestato sintomi di distress peritraumatico lieve/moderato e grave. Le femmine hanno punteggi più elevati dei maschi. Le persone anziane sono più resistenti di quelle più giovani, così come quelle che sono state in quarantena rispetto a quelle che non ci sono state. Dal modello di regressione logistica multivariata emerge che punteggi maggiori di distress sono associati a uso di psicofarmaci (AOR=4,28; IC 95%=1,55-11,85), utilizzo di rimedi per dormire (AOR=4,05; IC 95%=2,07-7,94), preoccuparsi di morire in caso di contagio CoViD-19 (AOR=3,33; IC 95%=1,83-6,06), genere femminile (AOR=2,95; IC 95%=1,58-5,53), credo religioso (AOR=1,97; IC 95%=1,05-3,70). Avere un'età dai 51 ai 71 anni, essere stati in quarantena e aver ricevuto supporto psicologico sono variabili risultate associate a bassi punteggi di distress. Conclusioni. Le caratteristiche psicometriche della versione italiana sono risultate soddisfacenti e confermano che il CPDI è uno strumento veloce, non invasivo, che può essere somministrato online e quindi "sicuro" in una fase ad alto rischio di contagio. Permette, come una termografia psichica, di rilevare rapidamente i bisogni della popolazione e proporre interventi altrettanto rapidi.

PAROLE CHIAVE: distress peritraumatico, PTSD, indagine online, CoViD-19, CoViD-19 Peritraumatic Distress Index.

INTRODUCTION

The Coronavirus Disease 2019 (CoViD-19) pandemic has been an extreme health, economic and social emergency, with 3,023,788 of confirmed cases worldwide (203,591 in Italy) and 208,112 deaths (27,682 in Italy) (source: Ministry of Health at April 29, 2020). It has been defined the largest psychological and social experiment of our time, he has locked 2,6 billion people, about a third of the world population[1].

The Italian Government declared first a state of health emergency on 31 January 2020 and then on 11 March the complete lockdown of the Country, that has been going on for more than seven weeks.

The CoViD-19 pandemic, caused by an unknown virus (SARS CoV-2), was «an intense and growing in size emergency»[2], a catastrophic event with characteristics of «a process with unpredictable development and duration, different from other catastrophic events, such as an earthquake, that occur once for all in a specific time frame»[3].

Italy and other western countries were not prepared for this impact on the health system and community life. Some Asian countries, such as China and South Korea, while suffering the impact of CoViD-19 and paying a high cost in terms of victims, had managed to cope with previous flu-like epidemics such as SARS and MERS. Studies from previous flu epidemics have shown that the psychological impact on the population and on health workers is significant and long-lasting. In the MERS, an epidemic influenza with a mortality rate of 20%, 80% of the population reported high levels of fear of infection[4]. During the MERS epidemic, negative subjects, after contact with the infected, showed anger and anxiety disorders (16.6% and 7.6%, respectively) that persisted after 6 months[5].

A first online survey at the time of CoViD-19 (February 2020), conducted in China, on 1210 subjects in 194 cities, showed a moderate to severe psychological impact in 53.8% of subjects, moderate to severe depressive symptoms in 28.8% and moderate to severe distress in 8.1%[6]. Another study on 7236 people found symptoms of anxiety in 35% of participants, depression in 20.1% and sleep disturbances in 18.2%[7].

A larger online survey on 52,730 people, in 36 provinces in China, shows symptoms of peritraumatic distress in approximately 35% of participants (29.9% moderate and 5.14% severe). Younger age and female gender are the factors associated with a worse psychological reaction to the event, while positively assessing the response of the Healthcare system has proven to be a protective factor[8].

Italian data, from a web-based survey involving a sample of 18,147 people (79% females, median age 38 years) aimed at assessing the mental health status of the general population in the lockdown period showed high values of post-traumatic stress in 37.1% of respondents, anxiety symptoms in 20.8%, severe depressive symptoms in 17.3%, insomnia in 7.3%. Twenty-three per cent of the total sample had values compatible with the presence of adaptation disorder[9].

To measure psychological suffering and distress in the 'hot' phases of an event with characteristics of natural catastrophe, such as phase 1 of a pandemic, in which we witness the dramatic consequences of the strong epidemic spread, is an important element for predicting and preventing the risk of developing Post-Traumatic Stress Disorder (PTSD) in later periods.

Specifically, peritraumatic distress reactions refer to behaviors, emotions, thoughts and symptoms associated with stress during or immediately after the traumatic event (e.g. fear of dying, fear of losing control, tachycardia, dissociative symptoms, dizziness, sweating and other). There is evidence that peritraumatic distress is an important predictor for PTSD[10-12].

To measure peritraumatic distress in a pandemic emergency, an easy to administer, short and accurate instrument is required.

The purpose of this study was to test the psychometric properties, by means of reliability and construct validity, of the Italian CoViD-19 Peritraumatic Distress Index (CPDI) originally developed in China by Qiu et al.[8]. CPDI is characterized as a rapid online compilation tool (10 minutes), easily understandable and appreciated by people. Secondary aims were: (1) to measure the prevalence of peritraumatic distress among Italian people in a pandemic period and compare our results with the Chinese ones; (2) measure the relationships between high peritraumatic distress scores and gender, age, use of remedies adopted to counteract distress and its side effects (psychotropic drugs, sleep supports, psychological support, religious practices, working at home, ect.).

METHOD

Preliminary phase

In a preliminary phase the CPDI has been translated using the standard forward-backward translation procedure to validate the quality of translated research instrument. The method consists in re-translating the translated text back into the source language. Then the back-translation and the original document are been compared and none inconsistencies were found, as judged by a group of expert psychologists. Pretesting with a pilot group proved that the instrument was understandable.

Participants

A sample of population were invited to respond to an online packet of anonymous questions (described below), from 15 to 24 April, 2020, during phase 1 of the Italian pandemic period.

The data for Italy as reported by the Italian National Institute of Health at April 21, 2020 are: 107,709 cases of CoViD-19, 51,600 recovered and 24,648 deceased, for a total of 183,957 cases. For Rome: 4402 cases (4.9% compared to national data), of which 1564 hospitalized and 2838 in home isolation, 1130 recovered (2.3%), 363 deceased (1.5%), for a total of 5895 cases (3.2%).

Instruments

CoViD-19 Peritraumatic Distress Index (CPDI)[8] has 24-items whose content refers to anxiety, depression, specific phobias, cognitive change, avoidance and compulsive behavior, physical symptoms and loss of social functioning in the past week. Items are rated on a 5-point scale ranging from 0 ('not at all') to 4 ('extremely'). The total score ranges from 0 to 100. A score below 28 indicates no distress, between 28 and 51 mild to moderate distress, and above 51 severe distress[8].

Impact of Event Scale-Revised (IES-R)[13] is a 22-item questionnaire to explore the degree of emotional impact of one event and the presence of probable post-traumatic disorder. This is one of the most used instruments in PTSD research[14,15]. Respondents are asked to identify a specific stressful life event and then indicate how much they were distressed or bothered during the past seven days by each 'difficulty' listed. Items are rated on a 5-point scale ranging from 0 ('not at all') to 4 ('extremely'). A score above 50 indicates a probable case of PTSD. As well as providing the IES-R total score, is possible calculate scores for avoidance, intrusion and hyperarousal.

Socio-demographic (e.g. age, gender, live alone), working activity (e.g. employment, work at home, in a health unit), lifestyle (e.g. type of house, religiosity), CoViD-19 exposure history (e.g. exposure, positivity, quarantine, hospitalization) and five specific questions ['Were you worried about dying if you contracted CoViD-19?', 'Have you ever perceived that family and/or friends have avoided contact with you because of your work?', 'Have you received psychological support?', 'Have you used psychotropic drugs?', 'Have you used sleeping remedies (drugs, supplements, herbal teas)?'] data were also collected.

All were included in the packet of questions to be completed online.

Statistical analysis

Internal consistency, that is, how closely related a set of items are as a group, was assessed by calculating Cronbach's alpha coefficient (α). A 'high' value of alpha is often used as evidence that the items measure an underlying (or latent) construct. Values of 0.70 or greater were considered satisfactory[16].

The relationship between CPDI and IES-R, total and subscale, scores was tested using Pearson product moment statistic (Person's correlation coefficient= r).

A comparison of CPDI e IES-R scores above cut-offs has been used to determine concordance or discordance of the measures.

The statistical analyses included the Pearson Chi squared test and Fisher exact test for categorical variables and the independent-samples *t* test for continuous variables.

The CPDI and IES-R scores were divided into 2 categories (no cases/probable cases) with respect to the cut-offs. For analysis reasons, the age was divided into 6 groups (21-30, 31-40, 41-50, 51-60, 61-71, missing values). The last group was made necessary by the number of birth dates entered incorrectly (n=28).

Multiple logistic regression models were used to calculate adjusted odds ratios (AORs) for factors independently associated with distress in the study sample. Data analysis was conducted using the statistical software package STATA 11. All tests were two-tailed.

RESULTS

This study was conducted between 15 April, 2020 and 24 April, 2020. A total of 329 adults (191 females, 58.1% and 137 males, 41.6%) with an average age of 46.49±13.58 years, range 21-71 years (44.58±14.45 and 49.19±11.80, respectively for females and males) filled out the online Italian version of the questionnaires anonymously.

Of the whole sample, 64 (19.45%) live alone, 111 (33.74%) are working outside the home and 17 (5.17%) in a hospital, 14 (4.26%) in a No-CoViD-19 unit and 3 (0.91%) in a CoViD-19 unit.

Among the activities carried out in a health unit there are doctors (2.74%), nurses (0.61%), psychologists (3.65%) and 'others' (3.95%). Two hundred and ninety-three (89.06%) carry out their activities not in healthcare unit.

Two hundred and forty-seven (75.08%) are residents of Rome and surroundings. Two hundred and fourteen (73.86%) live in the city, 48 (14.59%) in small towns and 38 (11.55%) in the countryside. One hundred twenty-eight (38.91%) declare themselves non-religious.

Twenty-nine (8.81%) had exposure to CoViD-19, 3 (0.91%) had a positive test result for CoViD-19, 94 (28.57%) are in quarantine and 81 (24.62%) were in quarantine in the period preceding the survey; 3 (0.91%) are under surveillance and 18 (5.47%) have been in surveillance in the previous period. One (0.30%) was hospitalized.

Ninety (27.36%) were worried that they could die if they contracted CoViD-19; 56 (17.02%) perceived that they were avoided by family and / or friends because of the work they do.

Twenty (6.08%) received psychological support during the period; 28 (8.51%) used psychotropic drugs; 79 (24.01%) made use of sleeping remedies (drugs, supplements, herbal teas).

Content validity

Two psychologists with two decades of experience on stress and trauma examined the contents of the CPDI and confirmed that the items covered issues of peritraumatic distress adequately.

Internal consistency reliability

Cronbach's α coefficient for the Italian version of the CPDI was 0.92 for females and 0.89 for males. Correlations between each item score and the total questionnaire score without that item were greater than 0.46, with the exception of the item 5 (r=0.30), although its removal does not lead to an increase in internal consistency. Cronbach's α coefficients did not change when items 5 was deleted. We decided not to delete this item from the questionnaire in consideration of content validity.

Construct validity

The CPDI score was correlated with the Intrusion, Avoidance and Hyperarousal score, as measured by the IES-R. The values emerged were 0.584, 0.569 and 0.678 for females and 0.687, 0.481, 0.741 for males. The CPDI mean score among females was higher than those of males (mean=24.96, SD=16.66 vs mean=18.61, SD=12.20; p<0.001). The CPDI mean scores among those worried that they could die if they contracted CoViD-19 were significantly higher, i.e. greater peritraumatic distress, than that who were not (mean=28.85, SD=15.96 vs mean=19.80, SD=14.24; p<0.001), for both females (mean=30.84, SD=16.35 vs mean=22.64, SD=16.26; p=0.002) and males (mean=26.28, SD=15.12 vs mean=15.97, SD=9.79;

p<0.001). Significant differences that go in this same direction emerged between those who use psychotropic drugs and those who do not (mean=32.37, SD=19.42 vs mean=21.33, SD=14.49; p<0.001), for both females (mean=34.97, SD=19.56 vs mean=24.17, SD=16.21; p=0.019) and males (mean=29.76, SD=19.66 vs mean=17.34, SD=10.43; p<0.001); between those who use sleep remedies and those who do not (mean=31.57, SD=19.26 vs mean=19.34, SD=12.41; p<0.001), for both females (mean=33.00, SD=20.23 vs mean=21.54, SD=13.58; p<0.001) and males (mean=27.84, SD=16.34 vs mean=16.84, SD=10.42; p<0.001); between those who live with others and those alone (mean=23.22, SD=15.58 vs mean=18.34, SD=13.18; p=0.021), for females (mean=26.43, SD=16.78 vs mean=19.23, SD=15.02; p=0.016), but not for males (mean=18.97, SD=12.68 vs mean=16.96, SD=9.79; p=0.657).

As excepted, concerning scaling validity there are some floor effect, due to items' content.

Prevalence of peritraumatic distress

A third of people experienced symptoms of mild/moderate and severe peritraumatic distress. Among females, 47 (24.61%) reported scores between 28 and 51 index of mild or moderate stress and 13 (6.81%) scores higher than 51, resulting as probable cases of severe peritraumatic stress. Among males, 20 (14.60%) reported scores between 28 and 51 indicating as mild or moderate stress and 3 (2.19%) scores greater than 51, resulting as probable cases of severe peritraumatic stress.

The difference in percentages of mild or moderate and severe stress between females and males is significant (p=0.008).

Thirty-eight (19.90%) females and 6 (4.38%) males are probable cases of PTSD reporting scores higher than the cut-off (score> 49) at the IES-R.

The measure of CPDI and IES-R categories concordance showed that 244 (74.16%) had concordant values. Two hundred and fifteen (65.35%) had both scores in the low range and 29 (8.81%) in the high range. This left 85 (25.84%) with discordant values; of these 70 (21.28%) had high CPDI scores and low IES-R scores, and 15 (4.56%) the other way around.

In multivariate logistic regression model high distress was independently associated with use psychotropic drugs (AOR=4.28; 95% CI=1.55-11.85), use sleeping remedies (AOR=4.05; 95% CI=2.07-7.94), be worried about dying in case of contagion CoViD-19 (AOR=3.33; 95% CI=1.83-6.06), female gender (AOR=2.95; 95% CI=1.58-5.53) and to have a religious belief (AOR=1.97; 95% CI=1.05-3.70). To be aged 51-60 and 61-71 years (AOR=0.20; 95% CI=0.08-0.50; AOR=0.08; 95% CI=0.02-0.31, respectively), to have been in quarantine (AOR=0.36; 95% CI=0.17-0.77) and to have received psychological support (AOR=0.25; 95% CI=0.07-0.92) were variables associated with a low distress.

DISCUSSION

The evaluation of CPDI psychometric characteristics suggests that the Italian version of the questionnaire demonstrated a high degree of reliability and construct validity.

The internal-consistency is high (Cronbach's α=0.916),

the content validity was satisfactory and the items covered issues of peritraumatic distress adequately, as judged by two psychologists experienced in stress and trauma. Satisfactory also the construct validity as given by the high correlation with the dimension of Intrusion, Avoidance and Hyperarousal as measured by the Impact of Event Scale-Revised, and the comparability between our results and the Chinese ones.

CPDI provides consistency to the data collected anonymously, online on an Italian sample of 329 people who confirm that during a pandemic about a third of people experience symptoms of mild/moderate and severe peritraumatic distress, data recently reported by other authors[8,9].

It should be emphasized that in our sample most of people did not contract the virus (99.09%), even if some of them came into contact with positive subjects (8.81%). Comparison with the data reported by Qiu et al.[8] highlights numerous similarities. The prevalence of peritraumatic distress is only slightly higher in the Chinese study than that reported in our study (35% vs 30.09%) and could be attributable to the different observation period. The Chinese study started on the day of the International WHO declaration of emergency (January 31, 2020) just 9 days after the start of the total lockdown in Whuan. We started 30 days after the lockdown declaration in Italy, a period in which there are still a strong epidemic spread. Moreover, this study concerned a more restricted area of the country, such as the province of Rome, which was not the epicenter for Italy.

The CPDI mean scores in the 2 studies, Chinese and Italian, are very similar: total sample (China, mean=23.65, SD 15.45 vs Italy, mean=22.27, SD=15.25) and female subsample (China, mean=24.87, SD=15.03 vs Italy, mean=24.96, SD=16.66). Slightly lower, ours than the Chinese ones, the CPDI mean scores in male subsample (China, mean=21.41, SD 15.93 vs Italy, mean=18.61, SD=12.20). The same considerations made for prevalence of peritraumatic distress may be applic to age or cultural or socio-demographic differences.

In the Italian sample there are differences between females and males in the percentages of distress, both mild/moderate (24.61% vs 14.60%) and severe (6.81% vs 2.19%), and in the percentages above the IES-R cut-off (19.9% vs 4.38%). These gender differences are in agreement with literature and Chinese data, which denote that women are more vulnerable to stress and more likely to develop post-stress symptoms over time [17]. In our sample, the factors independently associated with high distress scores were: the use of psychotropic drugs, the use of sleeping remedies and the concern of dying in case of contagion CoViD-19, in addition to a religious belief and a female gender. Factors associated with low distress scores were to be aged between 51 and 71, and to have had psychological support, in addition to have been in quarantine.

We do not know the direction of the relationship between pandemic and psychological distress. Is the pandemic exacerbating pre-existing psychic suffering or is it the cause of this? However, we know that taking psychotropic drugs and sleep remedies is associated with higher distress scores compared to those who do not take them and identifies a category of potentially vulnerable subjects[18] that could deserves attention and allocation of resources by socio-health institutions in the early stages of social isolation[19]. On the contrary, in the first

months of pandemic, occurred that many mental health out-patient clinics have limited appointments to those with the most urgent cases. The effects of social isolation or being forced to stay at home with an increase in the hours spent face to face with families with high amounts of conflict, the reduced availability of specialist support could have detrimental consequences on wellbeing in this subgroup of people, with possible exacerbation of symptoms and suffering[20].

Higher distress scores in younger people compared to those over 51, may lie perhaps to the fact that younger are confronted perhaps for the first time and without sufficient "existential" maturity to the limits set by a global crisis that has changed our way of living and relating. A second explanation could be a more massive use of the internet and social media with consequent greater exposure to the focus on CoViD and the phenomenon of infodemia (enormous unfiltered information) with consequent increase in feelings of insecurity and anxiety. However, if it is true that the use of the internet and social media decreases with increasing age, it should be considered that in Italy the latest ISTAT 2019 report[21] signals cultural changes with 61.2% of over 65s using computers, 47% search health information on the internet, and 57.6% search information online.

Further possible causes in the differences of distress are therefore to be found in other characteristics of the different age groups. A first hypothesis is that for the age group between 31 and 50 years, the greatest vulnerability could be due to the precariousness of the working activity with consequent interruption of income, and/or to the initial phase of professional activity's development, and/or presence of children with resulting in related concerns and the constraint of a forced cohabitation in a phase of release from the family of origin. On the basis of ISTAT report[21] on the situation in Italy, it is in fact highlighted how the process of lengthening the transition times to the adult stage places the average age of leaving the family around 30 years and moved forward the age of entry into the labor market, marriage or cohabitation and the birth of children. In the 20-34 age group 57% live in the family, and 9.9% of them perceive coexistence as a comfortable situation, 37.4% have an unstable occupation and between 25 and 29 years of age increase the desire for greater independence[21]. Between the ages of 30 and 34, 71% no longer live in the family and about half of them live alone. It is also the age range in which couples have children (52% of females and 35% of males). The age between 25 and 49 years connotes the group in which there is the highest concentration of mothers with minor children, and their care commitment reduces stability and hours worked. The market has also shown segments of work with large vulnerability traits such as temporary jobs under 6 months, openings of new self-employed work without employees, and involuntary part-time, particularly represented among younger people and women[21].

Even being religious, in our sample, does not seem to be a protection factor in pandemic time. A first explanation of the phenomenon concerns the closure of places of worship for which people have not been able to find comfort to their fears by going to church or following their religious rites and have lost an important source of social support (a part of Italians integrate the lack of social networks with regular participation in the activities of one's religious organization[21]. A univocal interpretation however of this results is not easy in the absence of a specific instrument for measuring the attitude towards religion Other studies have observed that extrinsic religious orientation was related to high level of anxiety[22]; there was an external-directing style when the events were perceived as beyond one's control with a sense of inability to manage them and a style of coping more passive who tended to delegate the resolution of critical situations to God[22,23].

In contrast with data of recent literature age and being in quarantine, in our sample, are factors independently associated with the absence of peritraumatic distress.

Qiu et al.[8] reported that people over 60 are at greater risk of emotional distress. In our sample people in age groups 51-60 and 61-71 years, compared to those in the 21-30 age group, have a better adaptation. Although epidemiological data reported that the median age of infected in Italy is 62 years, and people over 60 should be more concerned about contagion because they are considered at risk to a worse clinical course in case of infection. It is possible that the geographical area less involved by pandemic, compared to the Italian northern areas, a satisfactory economic stability (retirement income, permanent employment), social support and the ability to relativize traumatic impact, having gone through 1960-2020 historical period characterized by dramatic social change (e.g.: Cold War, protests of 1968, Italy's Years of Lead, Italy's Tangentopoli Scandal, September 11, economic crisis). This contributed to making our people in their sixties more resilient than most young and to what reported in other studies. In support of this hypothesis, the ISTAT report[21] supports this explanation by presenting a photography of the over sixty-year-olds characterized by a positive evolution of the aging process from different points of view. The improvement of health conditions, the progressive postponement of the retirement have widened the horizon and increased the years of active life[21].

A recent review[24] highlighted that to be in quarantine is associated to negative psychological effects – such as post-traumatic stress symptoms, anger, feeling of boredom, stigma and economic loss. Conversely people in our study that was been in quarantine reported absence of peritraumatic distress as compared to people that was not been in quarantine. We hypothesized that to have gone out the quarantine without signs of disease restore hope to the person. Quarantine's characteristics, as temporally defined period, clear and consistent information to be followed, access to individual and familial protection devices counteracted feelings of fear and uncertainty[24].

As already mentioned this study started some days after declaration of a "State of Health Emergency" in Italy, on 31 January, 2020. In those days information on virus, transmission mechanisms, devices and protective behaviors had been disclosed at community level.

A new and interesting fact that emerged from our study concerns the answer to the question: 'Have you been worried about dying if you get CoViD-19?'. The affirmative answer was associated with high levels of peritraumatic distress. An interesting meta-analysis of a few years ago on 'predictors of post-traumatic stress disorders and symptoms in adults' identified the perceived life threat during the traumatic event one among the seven predictors of PTSD[12].

Last, but certainly not least, new data has emerged respect to what we know about CoViD-19. To have received special-

ist psychological support is associated with the absence of peritraumatic distress. We have witnessed a wide awareness campaign about the need for psychological support to the population in the event of a pandemic, conducted by professional associations, scientific associations, national and international organizations. In China, the National Health Commission has produced guidelines for 'interventions on the psychological crisis for the pneumonia epidemic due to new coronavirus infection' for patients, medical staff and the general population (January 27, 2020). Using remote consultancy and extensive use of telematic platforms[25].

In Italy also there are numerous remote aid and psychological support initiatives for CoViD-19 published on the website of the Ministry of Health. Our data have confirmed its importance.

This study has some limitations. First, there are always limitations in the use of self-report questionnaires and in the choice of cut-off points. Questionnaires are not diagnostic tools. The choice of the cut-off point is arbitrary and depends on the objectives of the researcher, if she/he needs greater sensitivity or greater specificity. In the case of the CPDI, this is a newly developed questionnaire, with good reliability and validity of content and construct characteristics. Useful to be used in this pandemic phase. Further studies will be needed to consolidate the results.

Second, this data collection was conducted online in 10 days using a single social network channel based on the 3-person network. On the one hand anonymity has allowed people to express themselves more freely, on the other we have no data on the truthfulness of the information. Furthermore, being voluntary participation there may have been a sampling bias. The next studies will have to take into account a more reasoned, widespread and diversified diffusion.

Third, since this is a cross-sectional study, the temporal sequence of the detected associations cannot be identified and therefore we cannot affirm what the causes are and what the consequences, but in this specific study this limit does not seem to have excessive relevance. The factors associated with the presence of peritraumatic distress are indicators of psychological suffering or emotional-behavioral difficulty, while for those associated with the absence of distress, indicators of resilience, it is plausible to hypothesize their antecedent temporal position.

It is also possible that different geographical areas, with different prevalence of positive people, lead to a different distribution of the variables studied and their mutual relationships.

Finally, we are aware that we should have conducted the validation study and the investigation of the prevalence of peritraumatic distress in two separate moments, but given the times dictated by the emergency, we presented these preliminary data on the same sample.

Despite limitations, the results of this study have implications for the management of peritraumatic distress. Mental health professionals can have an instrument to spread quickly to a large number of people.

CONCLUSIONS

The preliminary results of this study have shown that the Italian version of the CPDI has satisfactory characteristics of reliability and validity which, despite the limitations of a self-report questionnaire, allows the rapid detection of the probable presence of peritraumatic distress.

The data collected, albeit with the limits described, showed that about a third of the sample presents symptoms of peritraumatic distress and showed the factors independently associated with distress, of those measured, the female gender, the intake of psychotropic drugs, the use of sleep remedies, the worry of dying in case of contagion, having a religious belief. But also factors with protective value such as more mature age, to have passed a quarantine period and to have received psychological support during the epidemic.

The association found between receiving psychological support and the absence of peritraumatic distress if confirmed by studies on large and diverse samples of the population should induce health decision makers to adapt the resources of mental health specialists so that they promote awareness campaigns for people with suffering psychological promptly request support.

The advantage of a rapid screening tool for peritraumatic distress, as CPDI, specific for CoViD-19, is that it is non-intrusive, administered online, and therefore safe in a phase with a high risk of contagion. It allows, like a psychic thermoscan, to quickly detect the needs of the population and propose equally rapid interventions. The tool makes it possible to identify vulnerable individuals early and offer them psychological intervention with a timely secondary prevention program with online consultations. These include arrangements for changes to medications, supportive psychotherapies, or counseling for patients living in households with high levels of conflict, either by videolink or messaging service[20].

Mental health services, religious organizations and other community services need to be equipped with appropriate e-health technologies and procedures to cope with situations such as the CoViD-19 pandemic to continue to support the social, spiritual and mental health needs of the population and thus build a more resilient community.

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