Psychopathological Dynamics during COVID-19 Social Distancing and Stay-at-home Policies: Telepsychological Support as a Bridge to the Enhancement of Psychological Well-being

Pasquale Caponnetto
Marilena Maglia
Francesca Benfatto
Concetta Pirrone
Silvia Platania
University of Catania, Catania, Italy

Gabriella Toscano
Freelance Psychologist

Maria Concetta Cannella
Azienda Sanitaria Provinciale di Catania

Santi Russo
Freelance Researcher

Lucio Inguscio
University of Rome La Sapienza.

Riccardo Polosa
University of Catania, Catania, Italy
Centre of Excellence for the acceleration of HArm Reduction (COEHAR)

On 9 March 2020, following the expansion of the SARS-CoV-2 epidemic, the Italian Government established an emergency protocol imposing restrictions: from the obligation to stay at home to the total closure of work activities. This decree made it essential to introduce various "New" Modes of psychological support, carried out through the use of smartphones, computers or other electronic devices equipped with an internet connection. The aim of this study was to observe, through the reception of telephone calls, the main psychological disorders reported by the population during the lockdown period in Italy. Another aim was to

Author info: Correspondence should be sent to: dr.ssa Marilena Maglia, Center of Excellence for the Acceleration of Harm Reduction (CoEHAR)
email: m.maglia@unict.it
North American Journal of Psychology, 2021, Vol. 23, No. 3, 385-396.

test this mode of intervention and evaluate its feasibility, acceptability, and its potential effectiveness in advance. From the data that emerged, it will subsequently be possible to establish a psychological intervention line aimed at determining the most frequent psychological problems reported during this period. From the start of the Italian lockdown, the psychological telephone support, promoted by the COEHAR center, has been activated. In order to manage the psychological requests arriving from all over Italy, this psychological intervention was available every day for one month from 8.00 am to 8.00 pm. A total of 255 psychological requests were examined. Although northern Italy had experienced a greater spread of the virus than in other areas, more calls were made from people living in southern Italy. The majority of psychological disorders were represented by Trauma and Stress-Related Disorders and anxiety-mood disorders that people reported as associated to the distress experienced during the lockdown period. For this reason, we recommend setting up a specific telephone intervention line to take charge of these specific psychological symptoms.

Keywords: COVID-19, Clinical Psychology, Psychological Support, Telepsychological Support

In December 2019, following a viral epidemic that developed in the city of Wuhan, China, a new form of Coronavirus was identified. The outbreak of the pandemic that followed made it essential to strengthen new modes of intervention, or telepsychiatry and psychological support services (Hilty et al., 2020) carried out through the use of smartphones, computers and electronic devices with an internet connection.

It is well-known that social isolation is a serious community health problem due to the impact it can have on numerous aspects of mental health and well-being (Gerst-Emerson & Jayawardhana, 2015; Usher et al., 2020).

The expression "mental health and psychosocial support" (MHPSS) is used to describe local or external support that aims to protect or promote psychosocial well-being and/or to prevent or treat mental health problems. The global humanitarian system uses the term MHPSS to indicate a wide range of action in response to emergencies such as the COVID-19 epidemic, including those persons who work with biological and socio-cultural approaches in health, social, educational and community settings, also to underscore the need for diversified approaches to provide the most appropriate support (Inter-Agency Standing Committee, IASC, 2007).

To understand the effectiveness of Telemental Health services, it is necessary to provide an explanation of how this epidemic may have caused negative consequences on people's mental health. The COVID-19 epidemic is in fact dangerous not only because of the aggressiveness and

contagiousness of the virus itself, but also because of the great changes that the rules on social distancing and the lockdown have changed the daily lives of every citizen (Li et al., 2020).

The psychological and psychopathological consequences of COVID-19 can be caused both by the immune response to the virus itself, and by psychological stressors such as social isolation, contagion worry, and stigma (Benedetti, 2020). It is also necessary to implement global health measures especially aimed at reducing isolation, as well as implementing procedures to reduce the feeling of fear and vulnerability among the general population. All information coming from the media should be closely monitored, assessed for its reliability, and psychological interventions should be promoted globally to safeguard the mental health of the population (Torales et al., 2020).

Prolonged isolation can adversely affect people's health, altering their sleep and nutrition rhythms, as well as reducing their chances of movement. In doing so, human channels of expression and pleasure are repressed and depressed, resulting in deflection of mood, increasing the probability of activating different defence mechanisms, such as avoidance (Brooks et al., 2020).

Our hypothesis is that telepsychological support may help to combat social isolation and promote the normalization of emotional states. The aim of this psychological service was to enable citizens to learn, with access to comprehensive information, empowerment strategies to reduce their worries, develop coping strategies, and improve the feeling of control through listening, informing, and orienting to the here and now.

METHOD

For telephone psychological support promoted by the COEHAR (Centre of Excellence for the acceleration of HArm Reduction) psychologists from all over Italy were contacted, and they agreed to respond to any requests for help throughout the first Italian lockdown period. Thanks to the collaboration with NETITH (Network Innovation Technology Hub) it was decided promptly to respond to these requests by activating for one month a free telephone service available every day from 8.00 am to 8.00 pm.

Each clinical psychologist was assigned a time slot, during which he/she had to be available in order to respond and carry out a telepsychological support and interview with members of the Italian population. For each phone call received, in accordance with the GDPR (General Data Protection Regulation) and in compliance with national regulations and a professional code of ethics, information on the data was collected in order to manage each psychological request. At the end of each call, gender, age, and city from which the call was made were

recorded. Each phone call received averaged 17 minutes with a standard deviation of 9 minutes.

The principal aim of this pilot study was to observe, through the reception of telephone calls, the main psychological disorders and requests reported by the population during the lockdown period in Italy. Another aim of this pilot study was also to test this mode of intervention and to evaluate its feasibility, acceptability, and its potential effectiveness. At the end of each call the level of satisfaction of the caller was evaluated by third parties, with the attribution of a score on a Likert scale from 0 to 10, where the score 0 represented absolute dissatisfaction and 10 maximum satisfaction.

From these data it will subsequently be possible to create an evolved telepsychological intervention with the aim of taking charge of the most frequent psychological problems emerged during this worrying period.

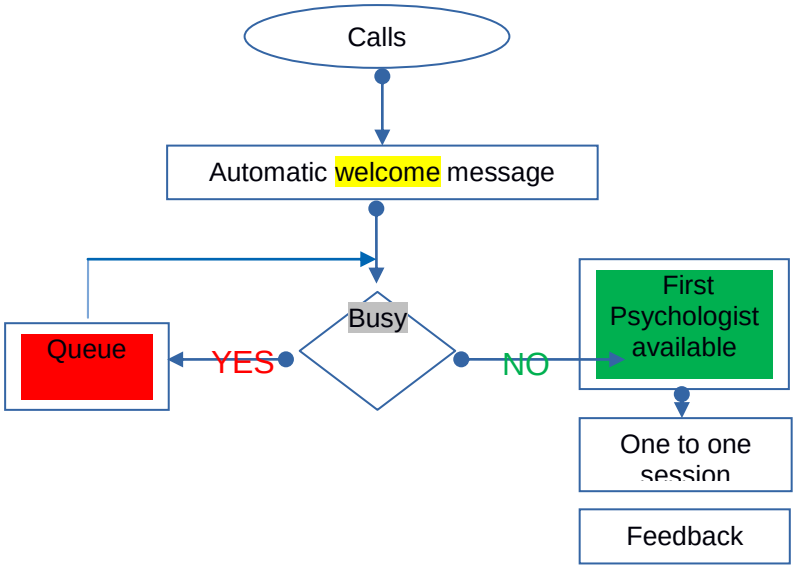

Fig.1 Theoretical model

Participants and Procedure

255 men and women (male 34.37%, female 65.63%) from different Italian cities used this helpline and respondents reported a variety of

psychological problems. Participants' socio-demographic characteristics are shown in table 1.

Telepsychology specialists documented everything that had been discussed with the participants. They registered the time, date, and total time spent rendering each call. Psychologists also collected a history of present illness, including information related to COVID-19, past medical, family, and social histories, and current psychological intervention, including medications and ongoing intervention. Psychopathological status was assessed by using DSM-V criteria, and a psychological intervention plan with a follow-up was established with each participant.

The telepsychological support service has been proposed and publicized on a national basis by means of television, radio and social networks. The following psychological tools were used during the telephone intervention sessions: Normalizing participants' feelings: Helping them to understand that stress and fear are normal in unknown situations (self-awareness); Limiting exposure to COVID-19 news, as too much information can trigger anxiety disorders; Encouraging them to tell someone when they experience symptoms of sadness or anxiety (staying connected); Teaching them to avoid discriminating against or blaming groups or individuals for the contamination process; Encouraging them to practise positive psychology techniques such as gratitude at regular times throughout the day (Alqahtani et al., 2021).

Table 1. Participants' characteristics

Gender	***Geographic area***
Male: *n* = 89 (34.4%); age: mean 37.5 *SD* 7.5	North: *n* = 112 (43.8%)
Female: *n* = 166 (65.6%); age: mean 29.5 *SD* 5.5	South: *n* = 143 (56.3%)
Problem area according to DSM V	
Trauma and Stress-Related Disorders	91 people (35,93%)
Anxiety disorders:	80 people (31,25%)
Mood disorders:	52 people (20,31%)
Obsessive compulsive spectrum disorder and related disorders:	16 people (6,25%)
Schizophrenia spectrum disorders:	4 people (1.56%)
Personality disorders:	4 users (1,56%)
Sleep disorders:	4 people (1,56%)
Eating disorders:	4 people (1.56%)

RESULTS

It was found that most users showed feelings of fear and concern regarding the emergency and difficulty in mood management related to the impossibility of meeting their close family members and not living together in the same house. In some cases the problem was sharing common spaces with people whom they had had previous relationship problems (see clinical vignette in table 2). Among the most frequent problems were those related to anxiety, amplified by the imposition of staying at home and uncertainty about future life after the lockdown period.

Table 2. Clinical Vignette

This is what happened when, during the lockdown following the COVID-19 pandemic, as part of the aid project promoted by COEHAR (Center of Excellence for the acceleration of HArm Reduction), we received a phone call from a 38-year-old woman with depressive symptomatology and suicidal fantasies probably as a reaction to prolonged vexatious conditions suffered in the marital relationship. Thanks to the telephone and the use of social networks, we have activated and involved a territorial service located right in the residence of this person. Through a synergy work between us and an Anti-violence Support Centre (Ceav) in her country, she has been gradually accompanied (albeit by phone!) and entrusted to a fellow psychologist, who after the lockdown took care of her and continued to follow her with meetings. The phone allowed an important first hook-up with this person, but – given the problem so delicate and complex – only preparatory to a necessary therapeutic relationship of intervention beyond the emergency.

Most participants were young females (64.63%). With regard to the geographical area of origin of the calls, 112 out of 255 users called from Northern Italy (43.75%) and the rest of the 143 users called from southern Italy (56.25%). The following psychological problems were described by users and classified by clinical psychologists according to DSM-V (APA., 2013) (Figure 2); 91 people: Trauma and Stress-Related Disorders (35.93%); 80 people: Anxiety disorders (31.25%); 52 people: Mood disorders (20.31%); 16 people: Obsessive compulsive spectrum disorders and related disorders (6.25%); 4 people: Schizophrenia spectrum disorders and other psychotic disorders (1.56%); 4 people: Eating disorders (1.56%); 4 people: Personality disorders (1.56%); 4 people: Sleep disorders (1.56%). With regards to the level of user satisfaction an average of 7.5 (SD = 1.8) was obtained, indicating a good level of user satisfaction.

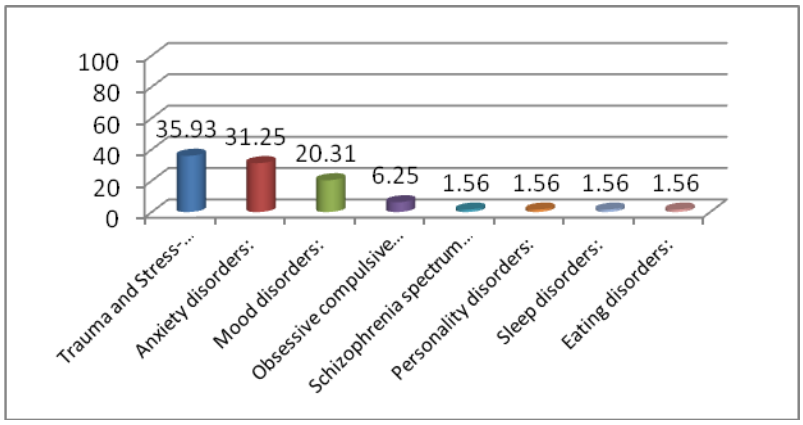

Fig. 2 DSM V Diagnosis Rates

DISCUSSION

The epidemic has been particularly dangerous for the major changes that lockdown has caused on the daily life and psychological health of every single citizen (Li et al., 2020).

Several studies associate long-term loneliness with some mental disorders such as depression, anxiety and increased stress (Robb et al., 2020). The data from late March show that significantly higher shares of people who were sheltering in place (47%) reported negative mental health effects resulting from worry or stress related to coronavirus than among those not sheltering-in-place (37%). Isolation and loneliness during the pandemic may present specific mental health risks for households with adolescents and for older adults.

The lockdown, although necessary to limit the spread of the epidemic, turned out to be harmful, since humans are not designed to manage segregation for a long time, short periods of isolation can in fact cause the presence of psychiatric symptoms even up to 3 years after the period of isolation (Brooks et al., 2020). Saltzman et al. (2020) observed that during this pandemic, the term "social distancing" has been a constant call-to-action on TV, radio, and social media versus the more appropriate term "physical distancing," adding to the perception of isolating oneself socially. Social media effects, job loss, disrupted academic routines and daily activities may act as key stressors, revealing or even triggering mental health problems. In this case social support represents an important tool for activating resilience, reducing negative symptomology, but also triggering adaptive coping styles following COVID-19.

The main objective of our study was twofold: the possibility of testing the support capacity of the telephone service during the pandemic

and to observe, through the reception of telephone calls, which were the main psychological disorders and requests reported by the population during the lockdown period in Italy.

With respect to the first objective, the results relating to the level of satisfaction (M = 7.5; SD = 1.8) suggest that the service has provided the desired outcome. Furthermore, as regards the second objective, the results allowed us to make a "mapping" of the main psychological disorders detected by the population that turned to the listening service.

The telephone is a tool that, in emergency conditions, allows important support even from a distance; this distance can create a closeness, and reduce the distressing state of loneliness and isolation when the operator is able to listen empathically, and to establish a relationship of trust with the person asking for help. The phone also allowed us to create networking and synergies between different professions by activating, as appropriate, and after a demand analysis, other support, and protection services for the person.

The changes brought about by the lockdown and the damage caused by isolation have favoured a rapid increase in the use of Telemental Health (TMH) services to allow the maintenance of the Therapist-patient relationship considering the reference context, while maintaining physical distancing. Instead, conflicting results emerge when examining the gender of users requiring assistance, suggesting that this figure is strongly influenced by the nation and culture of belonging of the users examined.

In our study, the most encountered psychological problems were stress-related disorders and anxiety, frequent psychological responses during disastrous situations like this; as stated (Goyal et al., 2020) undue prolonged stress with social isolation can lead to a pathological mental state. Other problems encountered were mood and sleep disorders, similar to results reported by Das (2020), which showed that during the pandemic, many hospitalised patients reported excessive fear, restlessness, and sleep disturbances.

According to data provided by the National Statistical Institute (Istat, 2018), psychiatric users assisted by specialist services from 2018 amount to about 837,027 units with standardized rates ranging from 96.7 per 10,000 adult inhabitants (total value Italy 166.6). Users were female in 53.8% of cases, while age composition reflected the aging of the general population, with a large proportion of patients over the age of 45 (68.3%). In both sexes there were fewer patients under the age of 25 (especially in females) while the highest concentration was in the 45-54 age group (25.0% in males; 23.1% in females); females had a higher percentage in the over 75 age group than males (7.5% in males and 12.3% in females). Rates for schizophrenic disorders, personality

disorders, substance abuse disorders and mental retardation were higher in men than in women, while the opposite was the case for affective, neurotic and depressive disorders. For depression in particular, the rate of female users was almost double that of men (29.2 per 10,000 inhabitants in males and 48.6 per 10,000 inhabitants in females).

Despite the excellent feedback concerning the use and rapid development of Telemental Health services, such as the narrowing of the gap in the use of specialist mental health care among the urban and rural population (Patel et al., 2020), there are some limitations to our study that need to be addressed: Not everyone can have access to online mental health services due to the lack of a smartphone or a connection to the internet (Li et al., 2020).

Confidentiality can be threatened through the electronic transmission of information or possibly through unsecured telephone connections. The risks and benefits of psychotherapy by telephone should be considered and found in the best interests of an individual before the therapeutic alliance (Mozer et al., 2008).

Our study was a pilot project, one of the most interesting aspects of which was the emergence of some types of psychological problems that were much more prevalent than others. For the future, it might be suitable to train the personnel assigned to the telephone service to better intervene with those asking for help, focusing on teaching them problem-solving strategies designed to cope with the most common of these pandemic-related problems.

Welcoming and transforming the need for physical contact, supporting and listening, maintaining a stable emotional state and guiding victims of the pandemic towards well-being and help, are the new challenges that our sector, in a changing society, must face and overcome.

Acknowledgements: This research has been supported by LIAF, Lega Italiana Anti Fumo (Italian acronym for Italian Anti-Smoking League). The authors would like to thank the NETITH for free phone line support and Dr.ssa Valeria Nicolosi for taking care of the aspects related to communication.

REFERENCES

Alqahtani, M., Alkhamees, H.A., Alkhalaf, A.M., Alarjan, S.S., Alzahrani, H.S., AlSaad, G.F., Alhrbi, F.H., Wahass, S.H., Khayat, A.H., & Alqahtani, K. (2021). Toward establishing telepsychology guidelines. Turning the challenges of COVID-19 into opportunity. *Ethics, Medicine, and Public Health, 16(100612).* https://doi.org/10.1016/j.jemep.2020.100612.

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition, DSM-5. Arlington, VA: American Psychiatric Publishing.

Benedetti, F. (2020). *Ansia e depressione nei pazienti post COVID-19*. https://www.hsr.it/news/2020/agosto/ansia-depressione-post-covid.

Brooks, S. K., Webster, R. K., Smith, L.E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet, 395(10227)*, 912–920. https://doi.org/10.1016/S0140-6736(20)30460-8.

Carmassi, C., Bertelloni, C.A., Gesi, C., Conversano, C., Stratta, P., Massimetti, G., Rossi, A., & Dell'Osso, L. (2017). New DSM-5 PTSD guilt and shame symptoms among Italian earthquake survivors: Impact on maladaptive behaviors. *Psychiatry Research, 251*, 142–147. https://doi.org/10.1016/j.psychres.2016.11.026.

Carmassi, C., Dell'Oste, V., Barberi, F. M., Pedrinelli, V., Cordone, A., Cappelli, A., Cremone, I. M., Rossi, R., Bertelloni, C. A., & Dell'Osso, L. (2020). Do somatic symptoms relate to PTSD and gender after earthquake exposure? A cross-sectional study on young adult survivors in Italy. *CNS spectrums, 1–7*. Advance online publication. https://doi.org/10.1017/S1092852920000097.

Carmassi, C., Dell'Oste, V., Pedrinelli, V., Barberi, F.M., Rossi, R., Bertelloni, C.A., & Dell'Osso, L. (2020). Is sexual dysfunction in young adult survivors to the L'Aquila earthquake related to post-traumatic stress disorder? A gender perspective. *The Journal of Sexual Medicine, 17*(9), 1770–1778. https://doi.org/10.1016/j.jsxm.2020.05.016.

Cimino, G., & Foschi, R. (2014). Northerners versus southerners: Italian anthropology and psychology faced with the "southern question". *History of Psychology, 17*(4), 282–295. https://doi.org/10.1037/a0036547.

Das, N. (2020). Psychiatrist in post-COVID-19 era - Are we prepared?. A*sian Journal of Psychiatry, 51, 102082*. https://doi.org/10.1016/j.ajp.2020.102082.

Dell'Osso, L., Carmassi, C., Stratta, P., Massimetti, G., Akiskal, K.K., Akiskal, H. S., Maremmani, I., & Rossi, A. (2013). Gender differences in the relationship between maladaptive behaviors and post-traumatic stress disorder. A study on 900 L'Aquila 2009 earthquake survivors. *Frontiers in Psychiatry, 3*(111). https://doi.org/10.3389/fpsyt.2012.00111.

Goyal, K., Chauhan, P., Chhikara, K., Gupta, P., & Singh, M. P. (2020). Fear of COVID 2019: First suicidal case in India ! *Asian Journal of Psychiatry, 49*. https://doi.org/10.1016/j.ajp.2020.101989

Gerst-Emerson, K., & Jayawardhana, J. (2015). Loneliness as a public health issue: the impact of loneliness on health care utilization among older adults. *American Journal of Public Health, 105(5)*, 1013–1019. https://doi.org/10.2105/AJPH.2014.302427

Hilty, D. M., Ferrer, D.C., Parish, M.B., Johnston, B., Callahan, E.J., & Yellowlees, P.M. (2013). The effectiveness of telemental health: a 2013 review. *Telemedicine journal and e-health: the official journal of the American Telemedicine Association, 19(6)*, 444–454. https://doi.org/10.1089/tmj.2013.0075.

Inter-Agency Standing Committee (IASC). IASC guidelines on mental health and psychosocial support in emergency settings. https://interagencystandingcommittee.org/iasc-task-force-mental-health-and-psychosocial-support-emergency-settings/iasc-guidelines-mental

ISTAT Rapporto salute mentale Analisi dei dati del Sistema Informativo per la Salute Mentale (SISM) Anno 2018. http://www.salute.gov.it/portale/documentazione/p6_2_2_1.jsp?lingua=italiano&id=2932.

Li, S., Wang, Y., Xue, J., Zhao, N., & Zhu, T. (2020). The impact of COVID-19 epidemic declaration on psychological consequences: A study on active Weibo users. *International Journal of Environmental Research and Public Health, 17*(6), 2032. https://doi.org/10.3390/ijerph17062032.

Li, W., Yang, Y., Liu, Z. H., Zhao, Y.J., Zhang, Q., Zhang, L., Cheung, T., & Xiang, Y.T. (2020). Progression of mental health services during the COVID-19 outbreak in China. *International Journal of Biological Sciences*, *16*(10), 1732–1738. https://doi.org/10.7150/ijbs.45120.

Mozer, E., Franklin, B., & Rose, J. (2008). Psychotherapeutic intervention by telephone. *Clinical Interventions in Aging*, *3*(2), 391–396. https://doi.org/10.2147/cia.s950.

Patel, S.Y., Huskamp, H.A., Busch, A.B., & Mehrotra, A. (2020). Telemental health and US rural-urban differences in specialty mental health use, 2010-2017. *American Journal of Public Health*, *110*(9), 1308–1314. https://doi.org/10.2105/AJPH.2020.305657.

Saltzman, L.Y., Hansel, T.C., & Bordnick, P.S. (2020). Loneliness, isolation, and social support factors in post-COVID-19 mental health. *Psychological Trauma: Theory, Research, Practice and Policy, 12*(S1), S55–S57. https://doi.org/10.1037/tra0000703.

Robb, C. E., de Jager, C. A., Ahmadi-Abhari, S., Giannakopoulou, P., Udeh-Momoh, C., McKeand, J., Price, G., Car, J., Majeed, A., Ward, H., & Middleton, L. (2020). Associations of Social Isolation with Anxiety and Depression During the Early COVID-19 Pandemic: A Survey of Older Adults in London, UK. *Frontiers in Psychiatry*, *11*, 591120. https://doi.org/10.3389/fpsyt.2020.591120.

Usher, K., Bhullar, N., & Jackson, D. (2020). Life in the pandemic: Social isolation and mental health. *Journal of Clinical Nursing, 29*(15-16), 2756–2757. https://doi.org/10.1111/jocn.15290.

Torales, J., O'Higgins, M., Castaldelli-Maia, J.M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *The International Journal of Social Psychiatry, 66*(4), 317–320. https://doi.org/10.1177/0020764020915212.

#CALLPSY collaborators Martina Mallia4 4, Mirella Cozzetto 4, Jasmine Cardullo 4, Fabina Currenti 4, Renata Governali 4, Valera Ortega 4, Sara Valeri 4, Alfredo Bonafede 4, Antonella Castellana 4, Rosaria Di Stefano 4, , Barbara Praticò 4 , Arianna Cirmi 4, Federica Marano 4, Silvia Longo 4, Maria Vittoria Pulvirenti 4, Federica Scrofani 4.

CallPsy collaborators handled phone call psychological management.