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Description of a tele-psychiatry program elaborated by Italian Institute of Health to manage psychological effects of COVID-19 pandemic in Italy

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Abstract

During epidemics, there is increased risk of developing distress, anxiety and depressive disorders, as well as discontrol of impulse and aggressive behaviours. Social restraint measures are associated with higher risk of substance and alcohol abuse, self-harming behaviours and domestic violence. There is also an increase in several psychosocial risk factors, such as economic stress, unemployment, bereavement, loss of role romantic break-up, and job loss. We describe an online, structured, manualized program proposed by Italian Institute of Mental Health that relies on standardized assessment instruments and evidence-based interventions. It was developed to be easily incorporated into routine clinical practice in the Mental Health Department. Based on principles and models proposed by the World Health Organization, the Inter Agency Standing Committee and the West China Hospital, the program addresses both the general population and the high-risk people, such as helpers and persons with high bio-psycho-social vulnerability. It is also useful for monitoring and surveillance.

Key words: COVID-19, psychological impact, online manualized program

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Franco Veltro declares no conflict of interest.

In this paper, the Authors describe a structured program which aims: a) to make the action of Mental Health Department more effective and efficient in containing the expected short, medium and long term psychological effects of the pandemic and lockdown, both in the general population and in the first line Health-Workers; b) to prevent, as far as possible, the onset of psychiatric symptoms by means of socio-health integrated interventions to address relevant unsatisfied social needs which may operate as psychological risk factors; c) to be useful for psychiatric follow-up. This program might prove its usefulness in case of a second wave as hypothesized in some studies [1].

The SARS-CoV-2 pandemic has adopted the strategies of quarantine and social isolation as the only effective techniques for "suppressing" contagiousness and reducing the prevalence and incidence of infection at the lowest possible rate. In terms of pandemics comparison, the current SARS-CoV-2 pandemic's impact on public health is similar only to the 1918 H1N1 virus pandemic, which occurred in the absence of the advanced and modern welfare and global financial systems of the third millennium [2].

In Italy, we carried out in the last three months the lockdown to reduce the contagiousness (R0 < 1), a long period characterized by physical distancing of

the entire population, the closure of places of social and productive aggregation such as schools, factories, commercial services and sporting and cultural entertainment centers.

At this time, to avoid epidemic return, some strategies are confirmed, i.e., physical distancing and closure of activities considered at risk (for instance, cinema, theatre, some sports). Some "special" populations, like elderly people, will experience also emotional isolation; in fact to protect them as the most vulnerable to the virus, they will be probably invited not to hang out with their younger relatives.

The social and emotional isolation already experienced and foreseen by the new epidemic control measures had a significant impact on some basic needs of people such as decision-making autonomy, space mobility, contacts with loved ones, with serious consequences on the psycho-emotional balance as documented in China [3].

Since Public Health Impact assessment has rarely been used, we know little about the relationship among acute epidemic phases, lockdown and medium-long term psychological impact on populations.

Our knowledge derives from experiences only partially comparable to the current epidemic, such as the SARS and MERS epidemics, even if scientific production is rapidly increasing also about the recent experience in Wuhan. However, most data concern the psychological impact of epidemic spread and contagiousness.

The lesson we learned from previous experience about short-term psychological impact of social isolation and quarantine leads us to expect a dramatic picture. In the 2003, during SARS epidemic ("only" 8,000 reported cases and 774 deaths worldwide) there was 30% increase of suicides in people over 65. The observed consequences of physical distancing and quarantine measures included: alcohol and substance abuse, suicide and self-harm attempts, domestic violence, child abuse and increased crime [4-6]. Other factors, of course, played an important role in prolonged quarantine, such as fear of infection, stigma, inadequate assistance and information [3]. A study carried out in China showed that adults who had stopped working because of the restrictive measures had high levels of psychological suffering, as assessed by the "K6" questionnaire, and poor physical health conditions [7].

It is conceivable that the lockdown, together with psychosocial factors such as job and role loss, may also have important long-term effects on mental health, leading to psychological and psychiatric problems not very different from those observed during social distancing and quarantine. Psychological distress, anxiety, intense anger or impulse control difficulties, different severity depression symptoms and PTSD can be expected, much more frequently in the first and second line health workers. Loneliness worsens psychological distress and often produces severe psychosomatic effects (cardiovascular and immune health (221, 222) [8,9]. Balive et al. [10], sustain that physical distancing exacerbates feelings of loneliness and could produce negative long-term health consequences.

Other coexisting psychosocial risk factors must be taken into account, such as financial stress, job loss, mourning, perception of an excessive load, loss of role, lack of fixed habitation, and breakdown of or serious impairment in significant relationships [3].

The restriction of access to health care services for users, together with the increased needs of care for the psychological consequences of pandemic outbreak, disrupted the routinely organization of services. Italian services underwent a deep reorganization, taking advantage of the use of phone, chat and tele-psychiatry, to the point that these new practices were incorporated into ministerial instructions or recommendations [11]. Tele-psychiatry, a subset of telemedicine, can provide a range of services including psychiatric evaluations, therapy (individual therapy, group therapy, family therapy), patient education and medication management. Prior to the pandemic, tele-psychiatry had built a strong scientific and real-world evidence basis, demonstrating its effectiveness across a range of psychiatric treatments, populations, and settings [12].

The United Nations [13] suggested that mental health interventions should be delivered remotely, for example telecounselling for frontline health-care workers and people at home with depression and anxiety. Innovative approaches to deliver mental health services are urgently needed to increase access to evidence-based care.

Last but not least, due to several reasons [14] surveillance and monitoring policies are supported and recommended, above all targeting at surveilling and monitoring anxiety, depression, self-harm, suicidal ideation, suicide and other mental conditions.

For all the premises above mentioned, a structured global on line program featuring feasible and reliable assessment tests and evidence based-treatment should be implemented and strongly recommended in mental health services.

This kind of program should have the following characteristics:

1) evidence-based, for an effective management of the psychological impact of the pandemic on the general population and subjects at risk;
2) equipped with tools and procedures for monitoring and surveilling symptoms of mental discomfort and psychiatric disorders pandemic related;
3) able to promote mental health of the population through intersectorial actions encouraging the adoption of correct lifestyles and coping techniques of psychosocial problems;
4) applicable also via phone or internet platform;
5) covering both the general population and the most vulnerable people such as a frontline health workers.

The Program proposed by ISS* as a Report named "*Indications for an intervention program of the Mental Health Departments for the management of the impact of the*

* www.iss.it/documents/20126/0/RAPPORTO+ISS+COVID-19+23_2020.pdf/a5d-4cf5e-f4cc-072e-0c43-d14ae920a2ca?t=1589209649628

COVID-19 epidemic on mental health" fully responds to these characteristics and we believe would be useful to specifically contrast and monitor the medium-long term effects of lockdown, such as stress-correlated psychological problems, anxiety, depression and DPTS.

The additional value of the program presented here will be its capacity to evaluate and distinguish people who meet the criteria for a psychopathological disorder that requires online or direct access to specialist services, compared to those who can benefit from interventions promoting personal well-being or targeting social needs.

The Key features of the ISS program are the following:

a. it is structured and refers to evidence based practices;
b. it is based on a standardized assessment methodology, using questionnaires applicable in the routine and already used in international contexts to allow data comparison;
c. it is sustainable in routine conditions;
d. it is manualized to allow reliability and therefore the comparison of results among services;
e. it uses a global approach, which considers both the general population and the high-risk population, at the same time implementing different intervention methods;
f. it includes actions that can be implemented in synergy with voluntary and professional associations, institutions and local authorities. Hopefully, this synergy should be broad and widespread in a long-term perspective, in order to identify and consolidate prosocial and salutogenic actions and interventions targeted at the general population, interventions to promote social support [15] and peer group initiatives [16];
g. it provides: standardized modules to ensure reliability and completeness in the collection of information; questionnaires for the assessment; sheets to help patients to exercise skills and to cope with problems such as fear, anxiety, anger and insomnia.

Description of the ISS-Programme

The program incorporates the principles contained in the most recent documents elaborated ad hoc by World Health Organization (WHO)[17] and by the Inter Agency Standing Committee (IASC)[18], but above all the principles coming from the West China Hospital model[19]. It must be taken into account that Italian government applied a "suppression" policy model, similarly to the Republic of China. As for the clinical evaluation, the tools most frequently used in scientific literature and Chinese experience were identified. As for psychological interventions, professionals are suggested to refer to scientific literature about the treatment of common mental disorders, e.g., NICE guidelines available on https://www.nice.org.uk regarding the treatment of depression, anxiety and stress related disorders. As for the management of psychiatric treatment, we suggest referring to the recommendations produced by professional societies, recognized by the Ministry of Research and Education.

The model adopted by China was based on timely and integrated interventions provided by non-specialist clinicians, psychiatrists, psychologists and social workers within a working method based on an internet environment. This model is adaptable to the various phases of the epidemic, relating to the epidemic "outbreak" period and the immediately following one. In the epidemic outbreak phase, the "psychological" intervention included two simultaneous activities:

1. intervention targeting fear of disease;
2. intervention aiming at adaptation to the situation.

In addition to these two interventions, which required integration with social workers also belonging to voluntary associations, there were interventions for the high-risk population, which included rescuers and people with particular bio-psycho-social vulnerability exposed to epidemic. The need for collaboration with voluntary associations, professional associations, local authorities and productive sectors was highlighted, as well as the construction of synergic and inter-sectorial protocols and procedures to arrange formal and informal networks and to promote self-help groups, including IT-based groups.

Great attention should be paid, in particular, to the consequences of social isolation on older people, in terms of physical and psychosocial health; as highlighted by previous experiences, they are at high risk. Therefore collaborative agreements with voluntary associations are suggested in order to promote socialization and support interventions, and priority collaboration protocols with general practitioners and geriatric services.

The Expert Team is responsible for preparing the needed material, managing program, monitoring and coordinating the interventions.

In each Community Mental Health Center (CMHC), a Team for Intervention on Psychological/Psychiatric Crisis COVID-19 related is established; at least one Psychiatrist, one Psychologist, one Nurse, one Psychiatric Technician and one Social Worker will be identified for this purpose.

The intervention activities are addressed to the general population (PG) and to the high-risk population (PR).

For both activities, the intervention must be intensive:

PG: depending on the problems highlighted, the intervention can vary from a minimum of 3 sessions to a maximum of 9, except for people who will have direct access to the CMHC. Short interventions focused on the problem are mostly suggested;

PR: the intervention, mainly online, will be based on the clinical evaluation of a psychologist or psychiatrist; it may provide direct access to the service and pharmacological therapy if necessary.

Based on the literature regarding:

PG: stress related mental health problems, anxious symptoms and depressive symptoms are expected;

PR: post-traumatic stress disorder symptoms and more severe anxiety and depression pictures are expected.

FIRST STEP - The contact (DAY 1)

A dedicated telephone line is activated at the DSM to receive the help call, to collect the general information and the phone number to be contacted (calls for psychiatric emergencies are obviously not considered here, but are part of the usual service activity).
The operator asks if the person is a frontline health worker. In this case, the PR path will be chosen. The privacy policy is communicated and consent to the data processing is requested.
At the beginning, 2 morning hours and 2 afternoon hours are scheduled as a service commitment.

SECOND STEP - General evaluation (DAY 1)

Phone interview duration: about 30 minutes.
After receiving the help call, one of the DSM operators calls back, preferably on the same day, to proceed with the collection of information and the evaluation phase. He informs the person and makes it clear that the service will take care of his/her problems, and that indications will be given to deal with them through intensive phone intervention. He clarifies that the collection of information will be of fundamental importance for this purpose.
For the collection of general information, similar for both lines of intervention, a semi-structured informative and anamnestic interview is used. If the person is a healthcare professional working on the front line, a psychologist or psychiatrist leads the interview.

THIRD STEP - First part - Clinical-decisional evaluation (DAY 2)

Phone interview duration: about 20 minutes.

PG. We suggest using K10[20] for a first assessment of the presence of mental discomfort and to weigh the anxious and depressive symptoms. In the case of score $\geq$ 20 and preponderance of anxious symptoms, proceed with further evaluation using a standardized instrument. We suggest the Zung Self-rating Anxiety Scale (SAS) [21] to evaluate the severity level of the anxiety and better plan the intervention. In the case of preponderance of depressive symptoms, the Patient Health Questionnaire-9 (PHQ-9) [22,23] is suggested.
To score the Zung Scale, use the sum of the item scores. A raw score over 40 is the optimal threshold criterion to recognize the presence of anxiety [21].
We recommend to score the PHQ-9 using simply the sum of the scores of the items, since recent extensive meta-analyses of individual data showed that a score higher than 10 is the optimal threshold criterion to maximize sensitivity and specificity in identifying probable depression [23] and provides better results than using the diagnostic algorithm [22].

PR. This intervention activity is dedicated to formal or informal (voluntary) frontline health workers. A psychologist, or psychiatrist, asks questions that are typically used by emergency psychologists. The psychologist or psychiatrist assesses the impact of the event. He/she can refer to the IES-R scale [24]. The health professional evaluates anxiety/depression symptoms for clinical use, for example by using the DASS-21 scale [25].

THIRD STEP - Part two – Introducing the intervention (DAY 2). Phone interview duration: about 15 minutes

PG. The person receives feedback about the evaluation:

1) in the case of K10 with a score lower than 20, the problems are related to mental suffering specifically related to stress. The person is told that his or her psychological problems will be addressed in subsequent phone sessions within a short program. The suggestions for self-management of anxiety are illustrated in the ISS Report (see above);
2) in the case of K10 score $\geq$ 20 and a problem of mild or moderate anxiety, as assessed for example with the Zung scale, the information is returned and the operator communicates that a structured program of 4-5 tphone sessions will be provided, preferably to be carried out on consecutive days by a trained operator identified by the DSM work team. In case of marked or severe anxiety (score$\geq$60, if the Zung scale is used), the person is informed that a more structured internet-based program will be provided or, if the person prefers, direct access to the service is offered;
3) in the case of K10 score $\geq$ 20 and a mild or moderate depression problem (PHQ-9: 10-19 score), the information is returned and the person is told that a program of 7-8 preferably consecutive telephone sessions will be provided by a specifically trained operator identified by the work team, in accordance with the NICE guidelines for the non-pharmacological treatment of depression. Monitoring is scheduled 1 week after the last interview. In case of severe depression (PHQ-9 score > 19), direct access to DSM is advised.

PR. The psychologist or psychiatrist informs the person about the evaluation and plans together with him/her the program to be implemented, including the possibility of a direct access to the CMHC.

FOURTH STEP - Intervention (next days)

PG. Based on the evaluation of the first 3 steps, the program can continue to: 1) cope with mental distress; 2) anxiety; 3) depression.

1) As for mental discomfort it is useful to focus attention on the problems that can be associated with it. We suggest using a Problem List to detect the type of problems in order to help the person strengthen his/her coping strategies; a manual has been elaborated for this intervention26. The intervention starts with two psycho-educational sessions on fear and anxiety.

2) As for the anxiety program, two psycho-educational sessions on fear and anxiety, a session for progressive muscle relaxation, a session of conscious breathing (available in the manual [26]) and other cognitive restructuring and monitoring sessions are suggested.
3) As for the depression program, two initial psycho-educational sessions on fear and anxiety and a third one on Problem Analysis are suggested [27]. Based on the Problem Analysis, the choice of intervention is shared with the person.

PR. Acute epidemic period (critical event). When the person is still actively engaged on the front line, phone sessions are recommended to be led by a specifically trained psychologist or psychiatrist, based on active and empathic listening, on "grounding" or rooting techniques or more simply on learning (body and breath-centred) relaxation techniques and cognitive decentration.

PR. Subsequent period of demobilization. The following steps are recommended:

1) First phase. Psycho-education.
2) Second Phase. Re-elaboration: the operator proceeds with more structured therapeutic interventions, which for the "milder patients" can be psychological interventions of emotional self-regulation and mindfulness meditation. For more severe patients, the "Guidelines for remote psychological intervention in favour of the population in the emergency COVID-19", available on the CNOP website (www.psy.it/gli-psicologi-sul-coronavirus), suggest proven interventions and treatments combining drugs and psychotherapy.
3) Third Phase. Psychosocial recovery phase. In accordance with the recent specific literature [28,29], interventions to improve social skills (including the adoption of lifestyles to improve physical health) and working conditions are needed. Social Skill Training Programs carried out by psychiatric rehabilitation technicians and social support interventions led by social workers are preferred.

References

1 Fergusson NM, Laydon D, Nedjati-Gilani G, et al., on behalf of the Imperial College COVID-19 Response Team. Report 9: Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand. London: Imperial College 2020. https://doi.org/10.25561/77482

2 Morens DM, Daszak P, Taubenberger JK. Escaping Pandora's Box - Another Novel Coronavirus. N Engl J Med 2020;382:1293-5. https://doi.org/10.1056/NEJMp2002106

3 Brooks SK, Webster RK, Smith LE, et al. The Psychological Impact of quarantine and how to reduce it: rapid review of the evidence. The Lancet 2020;26:912-20. https://doi.org/10.1016/S0140-6736(20)30460-8

4 O'Connor RC, Nock MK. The psychology of suicidal behaviour. Lancet Psychiatry 2014;1:73-85.

5 John A, Glendenning AC, Marchant A, et al. Self-harm, suicidal behaviours, and cyberbullying in children and young people: systematic review. J Med Internet Res 2018;20:e129.

6 Turecki G, Brent DA, Gunnell D, et al. Suicide and suicide risk. Nat Rev Dis Primers 2019;5:74.

7 Zhang SX, Wang Y, Rauch A, Wei F. Unprecedented disruption of lives and work: Health, distress and life satisfaction of working adults in China one month into the COVID-19 outbreak. Psychiatry Research 2020;288. https://doi.org/10.1016/j.psychres.2020.112958

8 Haslam C, Jetten J, Cruwys T, et al. The New Psychology of Health: Unlocking the Social Cure. Routledge 2018.

9 Hawkley LC, Cacioppo JT. Loneliness matters: a theoretical and empirical review of consequences and mechanisms. Ann Behav Med 2010;40:218-27.

10 Bavel JJV, Baicker K, Boggio PS, et al. Using social and behavioural science to support COVID-19 pandemic response. Nat Hum Behav 2020;4:460-71. https://doi.org/10.1038/s41562-020-0884-z

11 Ministero della Salute. COVID 19: Indicazioni emergenziali per le attività assistenziali e le misure di prevenzione e controllo nei Dipartimenti di Salute Mentale e nei servizi di Neuropsichiatria Infantile dell'Infanzia e dell'Adolescenza. www.omceo.ta.it/images/allegati/Circolare__Covid19_salute_mentale_1.pdf

12 Grady B. Promises and limitations of telepsychiatry in rural adult mental health care. World Psychiatry 2012;11:199-201. https://doi.org/10.1002/j.2051-5545.2012.tb00132.x

13 United Nations. Policy Brief: COVID-19 and the Need for Action on Mental Health - 13 May 2020.

14 Holmes EA, O'Connor RC, Perry V. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. Lancet Psychiatry 2020 Apr 15. pii: S2215-0366(20)30168-1

15 Dawson KS, Bryant RA, Harper M, et al. Problem Management Plus (PM+): a WHO transdiagnostic psychological intervention for common mental health problems. World Psychiatry 2015;14:354-7.

16 Hogan BE, Linden W, Najarian B. Social support interventions: do they work? Clin Psychol Rev 2002;22:383-442.

17 WHO. Mental health and psychosocial considerations during the COVID-19 outbreak. Geneva: World Health Organization; 2020. www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_2

18 IASC. Managing mental health and the psychosocial aspects of the COVID-19 epidemic 2020. www.auslromagna.it/organizzazione/reti-programmi/psicologia

19 Zhang J, Wu W, Zhao X, et al. Recommended psychological crisis intervention response to the 2019 novel coronavirus pneumonia outbreak. Precision Clinical Medicine 2020. https://doi.org/10.1093/pcmedi/pbaa0

20 Kessler RC, Barker PR, Colpe LJ, et al. Screening for serious mental illness in the general population. Arch Gen Psychiatry 2003;60:184-9.

21 Dunstan DA, Scott N. Norms for Zung's Self Rating Anxiety Scale. BMC Psychiatry 2020;20:90. https://doi.org/10.1186/s12888-019-2427-6.

22 He C, Levis B, Riehm KE, The Accuracy of the Patient Health Questionnaire-9 Algorithm for screening to detect major depression: an individual participant data meta-analysis. Psychother Psychosom 2020;89:25-37.

23 Levis B, Benedetti A, Thombs BD; DEPRESSion Screening Data (DEPRESSD) Collaboration. Accuracy of Patient Health Questionnaire-9 (PHQ-9) for screening to detect major de-

pression: individual participant data meta-analysis. BMJ 2019;365:1476.

[24] Weiss DS, Marmar CR. The impact of event scale – revised. In: Wilson JP, Keane TM, eds. Assessing psychological trauma and PTSD. New York: Guilford Press 1997, pp. 399-411.

[25] Henry JD, Crawford JR. The short form version of the Depression Anxiety Stress Scale (DASS-21). Construct validity and normative data in a large non-clinical sample. Br J Clin Psychol 2005;44:227-39.

[26] Veltro F, Biondi M, Capece A, et al. Intervento Telefonico Psicoeducativo per la gestione delle problematiche stress-correlate nella Popolazione Generale per l'epidemia da SARS-COV-2. Roma: Alpes 2020 (in press).

[27] Leveni D, Michielin P, Piacentini D. Superare la depressione. Un programma di terapia cognitive-comportamentale. Trento: Erikson 2014.

[28] Zhang SX, Wang Y, Rauch A, et al. Unprecedented disruption of lives and work: Health, distress and life satisfaction of working adults in China one month into the COVID-19 outbreak. Psychiatry Res 2020;288. https://doi.org/10.1016/j.psychres.2020.112958

[29] Zhang W, Wang K, Yin L, et al. Mental Health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. Psychother Psychosom 2020;89:242-50. https://doi.org/10.1159/000507639