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A brief description of ISS programme using telephone and tele-psychiatry to cope with psychological effects of lockdown pandemic in Italy

Franco Veltro[1], Gianmarco Latte[1], Mariangela Corbo[1], Massimo di Giannantonio[2], Gemma Calamandrei[3], Angelo Picardi[3], Antonella Gigantesco[3]

[1] ASReM, Campobasso; [2] University of Chieti, Asl 2 Abruzzo; [3] ISS, Roma

Franco Veltro

Summary
In this paper, the Authors describe a structured program which aim is: a) to render the action of Mental Health Department more effective and efficient in contrasting the expected short, medium and long term psychological effects of the epidemic 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 integration measures for relevant social needs as psychological risk factors; c) useful for psychiatric follow-up. This program may also prove useful in case of a second wave, as suggested in some studies.

Key words: lockdown pandemic, psychological distress, ISS programme, tele-psychiatry

The SARS-CoV-2 pandemic has seen the strategies of quarantine and social isolation dusted off as the only effective techniques for "suppressing" contagiousness and reducing the prevalence and incidence of infection at the lowest possible rate. The only comparison to be made with the global impact of the current SARS-CoV-2 pandemic on public health is with the 1918 pandemic by H1N1 virus, which occurred in the absence of the advanced and interdependent health, modern welfare and global financial systems of the third millennium.

In Italy we performed 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 return epidemics, some strategies are confirmed, ie physical distancing and closure of activities considered at risk (for instance, cinema, theatre, some sports). Some "special" populations, like for instance elderly people, will experience also emotional isolation; in fact to protect them as the most vulnerable to the virus, they will probably be invited not to hang out with 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, the reduction of contact with loved ones, with serious repercussions on the psycho-emotional balance as documented in China.

Since Public Health Impact Assessment have rarely been used, we still know

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Correspondence:
Franco Veltro
francoveltro@gmail.com

Conflict of interest
The Authors declare no conflict of interest.

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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 is a dramatic picture. In the 2003 SARS epidemic ("only" 8,000 reported cases and 774 deaths worldwide) there was a 30% increase in suicides in people over 65. The described consequences of physical distancing and quarantine measures included: alcohol and substance abuse, suicide and self-harm attempts, domestic violence, child abuse and increased crime [1-3]. Other factors, of course, played an important role in prolonged quarantine, such as: fear of infection, stigma, inadequate assistance and information [4]. 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" tool, and poor physical health conditions.

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. Psychic distress, anxiety, intense anger up to impulse control difficulty, of different severity depression symptoms up to pictures of PTSD can be expected, much more frequently in the first and second line health workers. Loneliness worsens the psychological distress and often produces severe psychosomatic effects (cardiovascular and immune health). Balive et al. sustain that physical distancing aggravate the 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, unemployment, job loss, mourning, perception of an excessive load, loss of role, lack of fixed abode, and breakdown or serious impairment in significant relationships [4].

The restriction of access of users, together with the increased needs for cure of psychological consequences from pandemic outbreak, disrupted the routinely organization of services. Italian services underwent a deep reorganization, taking advantage of the use of telephone, chat and tele-psychiatry, so effectively that these new practices were incorporated into ministerial instructions. Telepsychiatry, a subset of telemedicine, can involve providing a range of services including psychiatric evaluations, therapy (individual therapy, group therapy, family therapy), patient education and medication management. Prior to the pandemic, telepsychiatry had built a strong scientific foundation and real-world evidence base, demonstrating its effectiveness across a range of psychiatric treatments, populations, and settings.

The United Nations suggested that mental health interventions should be delivered remotely, for example quality tele-counselling 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 [5], surveillance and monitoring policies are supported and emphasized, above all targeting at anxiety, depression, self-harm, suicidal ideation, suicide and other mental conditions.

For all the premises above, a structured a global on line program featuring routine and reproducible 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. practices evidence-based for effective management of the psychological impact of the pandemic on the general population and on subjects at risk;
2. to provide tools and procedures for monitoring and spatiotemporal surveillance of symptoms of mental discomfort and psychiatric disorders related to the pandemic;
3. to promote the mental health of the population through intersectorial actions by encouraging the adoption of correct lifestyles coping techniques of psychosocial problems;
4. applicable also via telephone or internet platform;
5. monitoring schould cover both the general population and the most vulnerable people such as a frontline health workers.

The program proposed by ISS as a report named *Indication for an intervention program of the Mental Health Departments for the management of the impact of the COVID-19 epidemic on mental health* fully respond to these characteristics and we believe would be useful to specifically contrast and monitor the medium-long term effects of lockdown, such as psychological problems stress-correlated, anxiety, depression and DPTS.

The added 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:

- it is structured and refers to evidence based practices;
- it is based on a standardized assessment methodology, by the use of questionnaires applicable in the routine and already used in international contexts to allow data comparison;
- it is sustainable in routine conditions;
- it is manualized to allow reliability and therefore the comparison of results among services;

- it uses a global approach, which considers both the general population and the high-risk population at the same time implementing different intervention methods;
- it includes actions that can be implemented in synergy with voluntary and professional associations, with institutions and with 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 [6] and peer group initiatives [7];
- it provides: standardized forms to assure reproducibility and completeness in the collection of information; questionnaires for the assessment; forms to help patients exercise skills to cope with problems such as fear, anxiety, anger and insomnia.

Description of the ISS programme

The program incorporates the principles contained in the World Health Organization (WHO) document *Mental health and psychosocial considerations during COVID-19 outbreak* [8], in the document *Managing mental health and the psychosocial aspects of the COVID-19 epidemic*, version 1.5 of the Inter Agency Standing Committee (IASC) (www.auslromagna.it/organizzazione/reti-programmi/psicologia), but above all it incorporates the principles from the West China Hospital model "Recommended psychological crisis intervention response to the 2019 novel coronavirus pneumonia outbreak" [9], taking 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, operators are suggested to refer to scientific literature about the treatment of common mental disorders, to 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 recommendations by professional societies recognized by the Ministry of Research and Education.

The model adopted by China was timely and integrated interventions by non-specialist clinicians, psychiatrists, psychologists and social workers within a working method based on an internet environment. A flexible model has been proposed, 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 includes rescuers and people with particular bio-psycho-social vulnerability exposed to epidemic. The need for collaboration with voluntary associations, professional associations, local bodies and production workers was highlighted, as well as the construction of synergic and intersectoral protocols and procedures to arrange formal and informal intervention 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 collaboration agreements with voluntary associations are suggested in order to promote socialization and support interventions, and priority collaboration paths with general practitioners and geriatric services.

The Head Office is responsible for preparing the needed material, program preparation, monitoring and coordinating the interventions.

In each Mental Health Center, a Territorial Team for Intervention on COVID-19 related Psychological/Psychiatric Crisis is established (ETI-PsiCO); at least one psychiatrist, one psychologist, one nurse, one psychiatric rehabilitation technician and one social worker will be identified for this purpose.

The intervention lines are aimed at the general population (PG) and the population at risk (PR).

For both lines, 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 Mental Health Center. 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 related 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 telephone 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)

Telephone 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 telephone 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 (an example is provided in Appendix A1). If the person is a healthcare professional working on the front line, the interview is led by a psychologist or psychiatrist.

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

Telephone interview duration: about 20 minutes.
PG. We suggest using K10 [10] as first assessment of the presence of mental discomfort and to weigh the anxious and depressive symptoms. In the case of score ≥ 20 and preponderance of anxious symptoms, proceed with further evaluation using a standardized instrument. We suggest the Zung Self-rating Anxiety Scale (SAS) 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) 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 [11].
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 [12] and provides better results than the use of the diagnostic algorithm [13].
PR This line of intervention is dedicated to formal or informal (voluntary) frontline health workers. A psychologist, or psychiatrist, asks questions that are typically used by emergency psychologists. The questions for rescuers in Appendix A1 can be used. The psychologist or psychiatrist assesses the impact of the event. He/she can refer to the IES-R scale [14]. The operator evaluates anxiety/depression symptoms for clinical use, for example by using the DASS-21 scale [15].

THIRD STEP - Part two - Presentation of intervention to the person (day 2)

Telephone 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 telephone sessions within a short program. The suggestions for self-management of anxiety developed by the ISS on the basis of WHO indications are illustrated;
2. in the case of K10 score < 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 telephone 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 ≥ 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 ≥ 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 adviced.

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 DSM.

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. We advice to start with two emotional literacy sessions on fear and anxiety;
2. as for the anxiety program, two emotional literacy sessions on fear and anxiety, a session for progressive muscle relaxation, a session of conscious breathing, and other cognitive restructuring and monitoring sessions are suggested.
3. as for the depression program, two initial emotional literacy sessions on fear and anxiety and a third one of Problem Analysis are suggested. 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, telephone sessions are recommended to be led by a specifically trainined psychologist or psychiatrist, based on active and empathic listening, on “grounding” or rooting techniques

(if there are expert operators) or more simply on learning (body and breath-centered) relaxation techniques and cognitive decentration.

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

- first phase: psychoeducation;
- 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 favor 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;
- third phase: psychosocial recovery phase. In accordance with the recent specific literature, interventions to improve social skills (including the adoption of lifestyles to improve physical health) and to better working conditions [9] are needed. Social Skill Training Programs carried out by psychiatric rehabilitation technicians and social support interventions led by social workers are preferred.

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