ICT FOR MENTAL HEALTH IN COVID-19 PANDEMIC

Malina Jordanova[1], Todor Uzunov[2]

[1]*Space Research and Technology Institute – Bulgarian Academy of Sciences, mjordan@bas.bg*
[2]*Asklepios Clinic for Mental Health, Clinic for Psychiatry, Psychotherapy and Psychosomatics, Academic Teaching Hospital of the Goethe University Frankfurt am Main, Langen, Germany, to.uzunov@asklepios.com*

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Abstract: The outbreak of coronavirus disease (COVID-19) put a stress on mental health. Mental health problems, related to COVID-19, are observed on a population level, including depression, anxiety-driven panic buying and paranoia about attending community events, increased use of alcohol, tobacco and drugs, pandemic-related suicides, etc.
The utilization of information and communication technologies (ICT) for a remote mental health support is one of the most interesting areas in contemporary psychology and psychiatry. The paper indicates the application of tele-mental health counselling and therapy as at present they help coping with part of the problems.

ИЗПОЛЗВАНЕТО НА ИНФОРМАЦИОННИ И КОМУНИКАЦИОННИ ТЕХНОЛОГИИ В ПОДКРЕПА НА ПСИХИЧНОТО ЗДРАВЕ В УСЛОВИЯТА НА COVID-19 ПАНДЕМИЯ

Малина Йорданова[1], Тодор Узунов[2]

[1]*Институт за космически изследвания и технологии, Българска академия на науките, mjordan@bas.bg*
[2]*Клиника за психично здраве „Асклепиос", Клиника по психиатрия, психотерапия и психосоматика, Академична болница за обучение на Университета Гьоте - Франкфурт на Майн, гр. Ланген, Германия, to.uzunov@asklepios.com*

Ключови думи: Информационни и комуникационни технологии, психично здраве

Резюме: Избухването на корона вирусната пандемия силно влияе на психичното ни здраве.
Наблюдаваните проблеми, свързани с COVID-19, са в широка гама – от тревожност, растящо безпокойство за личното здраве и за здравето на любимите хора, паника от загуба на работа и финансови затруднения до промени в съня или режима на хранене; трудности в концентрацията; влошаване на хронични здравословни проблеми, включително психични заболявания; повишена употреба на алкохол, тютюн, наркотици и др., параноя относно присъствието на обществени събития и др.
Използването на информационни и комуникационни технологии (ИКТ) за дистанционна подкрепа на психичното здраве е една от най-интересните области в съвременната психология и психиатрия. Статията посочва прилагането на виртуалното консултиране и терапия, като начин за справяне с част от проблемите.

What is Mental Health?

Mental health is essential part of our health. It includes the emotional, psychological and social well-being and affects our way of thinking, coping with stress, building relationships and realizing our potential.

The importance of mental health is underline with its inclusion in the definition of health in the World Health Organization's (WHO) constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

There are many different mental disorders, including depression and anxiety, conditions due to abuse of alcohol and other substances, severe disorders such as schizophrenia, dementia, bipolar

disorder, etc. Usually mental disorders are characterized by some combination of abnormal thoughts, emotions, behaviour and relationships with others. The following facts outline the global prevalence and importance of mental health disorders [1-4]:

▶ 1-in-7 people have one or more mental or substance use disorders;
▶ Mental and substance use disorders account for ~5% of global disease burden in 2017, but this reaches up to 10% in some countries;
▶ ~1 in 5 children and adolescents have a mental disorder;
▶ About half of the mental disorders begin before the age of 14;
▶ Depression is one of the leading cause of disability, affecting >264 million people. The global economy loses is ~ 1 trillion US$ per year in productivity due only to depression and anxiety;
▶ Suicide is an extreme, but not uncommon, outcome for people with untreated mental disorders. Approximately 1 person every 40 sec dies due to suicide;
▶ People with severe mental disorders die 10 to 20 years earlier that the general population.

COVID-19 Impact on Mental Health

The outbreak of coronavirus disease (COVID-19) put a stress on our mental health. The unpredictability of the situation, the uncertainty of when and how to control the disease and the seriousness of the risk are extremely traumatic. From the other hand, it is commonplace to refer to "Homo sapiens" as "the social animal". Being trapped in a closed space for a long time puts a great deal of pressure on humans as we have always interacted with one another. This led to the formation of communities and to the formation of the society. Actions that stop the grand flow of the past are unbearable stress for humans.

As per November 2nd, 2020, globally there are 46 166 182 confirmed cases of COVID-19, including 1 196 362 deaths, reported to WHO [5]. The wide distribution of COVID-19 and the new rules imposed worldwide such as the applied social distance and isolation, temporary unemployment, closed schools, lack of physical contact with other family members, friends and colleagues go along with an increasing fear and worry about once personal health and of the health of his/her beloved. This is often combined with a panic of job loss and financial difficulties, loss of community and religious contacts, intensive social and media influences. All these cause changes in the sleep or eating patterns; difficulty in concentration; worsening of chronic health problems, including mental health conditions; increased use of alcohol, tobacco, drugs, anxiety-driven panic buying and paranoia about attending community events, pandemic-related suicides, etc.

Mental health problems, relating to COVID-19, have already been observed, not as an exception, but on a population level, Let's cite some wide scale studies:

Cross-sectional, self-report surveys from the first half of 2020 revealed that in the general population:

• In India, clinically significant psychiatric symptoms were reported by 36% of adults. In addition, a 20% increase of mental illnesses was observed [6].
• Other cross-sectional surveys found a psychological distress (e.g., depression, hopelessness and nervousness) in 12 to 36% of the responding adults. The distress was greater in those who were aged 50 years and older, were divorced or widowed, and employed as health care workers [7-8].
• 20% of 2-6 grades students, quarantined at home for an average of 34 days, demonstrate anxiety and depressive symptoms [9].

Mental health disorders occur also in clinicians, exposed to COVID-19, too. Self-report, front-line surveys from Italy and China on 2500 participants, revealed anxiety in 12 to 20% of the respondents; depression in 15 to 25%; insomnia in 8%; traumatic distress in 35 to 49% [10].

Reports of psychiatric clinics showed a deterioration of patients with pre-existing mental health problems. The analysis of the health status of 1400 patients discovered deterioration, related to the pandemic, in 21% of the patients [10].

Patients, diagnosed with COVID-19, also develop mental health problems. 60 studies covering >2500 cases reported that 42% of these patients had insomnia; 38% had impaired attention or concentration; anxiety was found in 36%; memory impairment in 34% and depressed mood in 33% of the patients [10].

ICT for Mental Health in COVID-19 Pandemic

The above illustrated the need for urgent increase of mental health support. Unfortunately, this is not easy in the traditional way, as mental health services were always underfinanced. Less than <2% of the global median of the health budget is dedicated to curing mental health diseases and their

prevention. In addition to the limited financing, the human resources are limited. The rates of mental health workers per 100 000 vary from 2 per 100 000 population in low income countries to >70 per 100 000 population in high income countries. This is in contrast with needs, given that 1 in every 10 person is estimated to need mental health care at any one time.

Here is the role of ICT. The utilization of information and communication technologies (ICT) for remote mental health support is one of the most interesting areas in contemporary psychology and psychiatry. It is inevitable part of eHealth.

Tele-mental health counselling and therapy offer help to those who need it, no matter where they are and at what time of the day or night this happens. The technology is available and working [11-13]. It has proven its potential in a number of pilots and private practices as well as supporting participants of Arctic expeditions and space missions - both at the Mir space station and in the International Space Station (ISS) as well as during ground-based psychosocial isolation experiments as MARS-500 and Moon experiments [14 -15].

Current pandemic once again underlines the necessity to pay more attention of wide applications of virtual mental health services as they help coping with part of the problems. Unfortunately, virtual mental health consultations and support are not part of the accepted and regulated healthcare practice in most countries, including our country. The legislation and reimbursement issues have to be solved at a governmental level or at international level, when cross-border services are concerned.

From the other hand, the efforts of local and international professional communities and enthusiastic volunteers, revealed, once again, the effectiveness of ICT application in mental health support.

What is done so far? Three are the main aspects that flourished after the start of the pandemic.

1. Mental health workers proved their readiness to react and support the community during the pandemic. Psychiatry clinics adapt to the new reality and follow their chronic patients from a distance, if and when possible, adjusting the medications and offering consultations to the patients and families. Unfortunately, the hospital staff is not able to offer help to all – chronic patients, family members, new cases, etc. The focus remains on patients, not on prevention.
2. Psychology communities all over the world extend the online support that they offer, including free wide variety of free of charge consultations.
3. Both international organizations and professional communities prepare and distribute educational materials for citizens, medical staff and caregivers.

Are citizens ready to use tele mental health support? This is an important question. No doubt, there are many questions about tele-mental health services. Due to the limited amount of space, we are not going to discuss here its pros and cons.

Several publications and systematic reviews, published this year [16-17], underline that telemental health services, in the time of pandemic, are a "promising modality for increasing access to evidence-based mental health care for vulnerable patients across geographic regions. Its use, alongside appropriate in-person services, can help to close treatment gaps that contribute to disability, morbidity, and mortality" [18].

Our previous research confirmed that Bulgarian users are also ready to accept tele-mental health support, if and when available. The results were already discussed in details in other papers, yet, it is worth outlining them again.

The survey was online, anonymous, self-reporting with 375 respondents, 20-60 yrs. old and revealed that:

- 75,75% of participants are ready to use Internet to receive tele-mental health support or consultations;
- The preference of the communication with mental health specialist vary. 56,8% prefer email exchange; for 28% - Skype is the best choice; 16,7% would rely on video channels, 4,4% prefer only chat communication, while 11.4% would like to use a combination of several communication channels.

Participants, that had already experience with virtual mental health services, had the chance to estimate their practice. 44% were not satisfied from the remote service, while for 36,6% the service was acceptable. Only 19.5% were entirely satisfied.

Conclusions

What is next? The need for mental health care will increase and the number mental health workers will not be sufficient for a very long time. The technology for tele-mental health services is available. There is no reason not to continue developing and promoting virtual mental health support

widely, despite of the fact that now, virtual psychology and psychiatric counselling are not covered by insurance policies. As there is a movement to solve this problem, giving up tele-support is not a choice. That's why, raising the awareness of healthcare professionals, decision-makers, donors, providing references to good practice models, treatment protocols etc. is important.

Tele-mental health services are a promising way to deliver mental health support but is still underused. The COVID-19 pandemic may serve as an opportunity to promote, among healthy citizens and health service providers, healthcare professionals; patients, diagnosed with mental health disorders and their family members; vulnerable groups of the society – teenagers; citizens living alone, elderly, etc., the knowledge of the possibilities offered by the digital era.

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