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Background: Increased mortality and reduced life expectancy have been described in patients with schizophrenia (SZ), essentially due to low cardiorespiratory fitness (CRF) and sedentary behavior. Otherwise, although antipsychotic drugs can improve positive symptoms, their beneficial effects on negative symptoms remain limited. Emerging evidences suggest that physical activity (PA) could reduce symptoms severity and improve global health in SZ. No study has investigated the impact of adapted PA program delivered and supervised via web-based videoconferencing (e-APA). We present preliminary results of the PEPSY V@SI trial (ClinicalTrials.gov identifier: NCT03261817). The objective of the present study was to demonstrate the benefit effects of e-APA on CRF and clinical symptoms in SZ, in particular negative symptoms and apathy dimension.

Methods: Thirty-three SZ were included in a web-based 16-week program (2 x 60min/week) and were randomized either in the active group (SZ-APA = 17) or in a control group with health education (HE) delivered in the same conditions as APA (SZ-HE = 16). Maximal oxygen uptake (VO_{2max}) as an indicator of CRF, Ricci Gagnon (RG) representing PA level and clinical symptoms (Positive and Negative Syndrome Scale (PANSS), total and apathy dimension of Brief Negative Symptom Scale (T- and A-BNSS) and Self-report of Negative Symptoms (T- and A-SNS)) were evaluated at baseline and/or after 16-week intervention. At baseline, VO_{2max}, RG and clinical symptoms were compared between SZ-APA and SZ-HE using the independent samples t-test. In order to evaluate group differences in VO_{2max} evolution, we used one way ANCOVA with the VO_{2max} relative variation as dependent variable, the intervention (e-APA vs. e-HE) as independent variable and RG as covariable. Same design was used to evaluate group differences in clinical symptoms evolution. Finally, Spearman's correlations were used to evaluate the relationships between VO_{2max}, RG and symptoms in all SZ at baseline and in each group for relative changes in VO_{2max} and symptoms.

Results: Twenty-nine of thirty-three SZ completed the study (87,9%). At baseline, there was no group differences for VO_{2max}, RG and symptoms severity. At baseline, only RG was negatively correlated with negative symptoms (T-BNSS: r = -0.392, P = 0.024; A-BNSS: r = -0.516, P = 0.002; T-SNS: r = -0.506, P = 0.003; A-SNS: r = -0.561, P < 0.001). ANCOVAs revealed only a significant intervention effect for VO_{2max} relative variation (P = 0.023), SZ-APA presented a VO_{2max} improvement compared to SZ-HE. No correlation between VO_{2max} and clinical symptoms relative variations were found.

Conclusions: Findings of this study revealed that e-APA was feasible in SZ since adherence rate was 87,9% although the study duration was more than 4 months. Interestingly, e-APA improved CRF in SZ compared to e-HE. However, CRF changes in SZ-APA did not impact symptomatology. Nevertheless, negative symptomatology and, more particularly, apathy dimension could be responsive to sedentary behaviors. Thus, e-APA represent a promising adjunctive treatment because of its benefits on physical health in SZ. Nevertheless, further studies are necessary to better understand impact of e-APA on pathophysiological mechanisms in SZ and relationships with patient's symptomatology.

No conflict of interest

P.0815
Internet-related variables negatively predicting quality of life and sleep during the pandemic

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Introduction: The coronavirus disease of 2019 (COVID-19) pandemic is, in many ways, specific. In addition, the Internet usage during the pandemic has taken on a new dimension. On one hand, maintaining social contacts with friends/families to reduce psychological impacts of isolation, providing access to entertainment and even materials guiding physical exercises are all realized through information and communication technologies. All these are also the strategies recommended by the WHO. On the other hand, longer Internet hours coupled with the specifics of the Internet usage during a pandemic, could lead to exploring particular contents (pornography) as well activities (social networks, games). The aforementioned could negatively reflect on important mental health factors in daily living such as quality of life or insomnia. Aim: The aim of our study was to investigate if quality of life and sleep during the pandemic are predicted by Internet-related variables such as the general use of Internet.

Methods and methods: This cross-sectional study is a part of a wider international multicenter research. The study was approved by Ethics Committee of the Clinical Centre of Serbia and the Board of Clinic of Psychiatry, Clinical Centre of Serbia. The study included 3330 participants (71.1% females, average age was 40.78 ±12.21 years). The participants filled in an anonymous online self-report questionnaire, comprising the following: 1) socio-demographic questionnaire; 2) questionnaire on Internet use during the pandemic (designed for the purpose of this study), assessing whether participants had more frequent use of Internet, and performed any of the online activities more (e.g. playing online games, using Instagram, Facebook (FB)), or browsed any of the Internet contents more (e.g. sexual contents) during the pandemic; 3) the Insomnia Severity Index (ISI); 4) the COVID-19 - Impact on Quality of Life (COV19-QoL) scale. Multivariate liner regression was used to produce two models, with COV19-QoL during the pandemic and the ISI score as outcomes, and Internet-related variables as

predictors, controlling for gender, age, and the number of persons living in the household. Results: Both linear regression models were significant, explaining about 6% of variance each. Worse QoL during the pandemic was predicted by more time on Internet during the pandemic, more frequent gaming, FB use, and searching for sexual content, whereas the more frequent use of Instagram had no predictive effect. Higher insomnia severity was predicted by more time spent on Internet during the pandemic, and more frequent search for sexual content, while other Internet-related variables had no predictive effects.

Conclusions: The findings of this study speak in favor of the negative association between the general and specific use of Internet on side, and the quality of life and sleep during the pandemic, on the other. These findings may have important implication for both prevention and further research.

No conflict of interest

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How social media big data can improve population-based suicide prevention

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Introduction. Since 2016, when European Commission developed recommendations for Big Data use in prevention and health care in the European Union [1], studies have been emerged to identify Big Data applications not only for the health of the individual but also for the health of the whole population. Big Data in Health is already being generated and ready for use from various different sources. Social Media is undoubtedly one of those evolving data sources which were listed in European Commission Report as offering large opportunities for research in prevalence and prevention. Over the last years, increasing evidence has occurred on social media and suicides relation. Social media suicide groups that romanticize the suicidal deaths and their means can influence suicide-related ideation and possibly lead to an increased number of self-injuries and suicides [2]. Recent findings confirmed the mediating role of suicide-related social media use behaviors and suicidal risks [3]. Importantly, the most vulnerable group to suicide-related media content can be youths, a group with dominance on sites such as Facebook, Twitter, and VK [4, 5]. In this study, we provide results on three-month data collection on suicide group followers on one of the largest social networking sites.

Objectives. We focused our study at identifying suicide group followers on social networking site, particularly, their basic population characteristics by years of age, sex, and any social background.

Method. During January-March 2020, we collected and analyzed open and publicly accessible data of large social networking site VK (vk.com). The analysis of Big Data requires significant resourses and computing power. Supercomputer with 6.2 thousand computing cores, high-speed Internet connection, and a high-performance cluster for collecting, storing and processing data was used. Big data search algorithm employed linguistic toolkit based on eight keywords, such as "suicide", "to kill myself", "wanna die", "it is better to die" and other. The study was conducted according to International Regulations on studies involving human participants, HRA's Research Ethics Service, the Declaration of Helsinki and the Human Rights Act.

Results. As a result of a three-month data collection, we found 24 suicide-related groups on social networking site with total number of 570,156 followers. The largest group consisted of 209,478 followers, while the smallest one had 1,497. Employing a profile-matching search algorithm, we dected 70,881 social media users who followed two or more suicide-related groups. In fact, their share reached 1/8 of total follower's number we identified. Larger share of suicide groups' audience was females, who were 58.51% of the followers aged 21.25 years in average. Males were of 24.33 years of age and amounted 41.49% of the sample.

Conclusion. The study revealed that young people aged between 21 and 24 contributed the majority of 570,156 suicide-related social media groups' followers. We consider our findings a highly relevant for age-based target suicide prevention in general population. Moreover, we emphasized that further research in this area based on Big Data analysis and mental health screening is strictly necessary to achieve a better understanding of social media use behavior, certain behavioral signs, and suicide risk interrelation.

Conflict of interest
Disclosure statement:

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