

# Archiv EURO MEDICA

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**ARCHIV EUROMEDICA**

**ISSN 2193-3863**

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Sutelstr. 50A, 30659 Hannover, Deutschland

Tel. 49(0)5113908088  
Fax 49(0)511 3906454

Vorstand Dr. G. Tyminski, Vorsitzender  
Eingetragen ins Vereinsregister  
am Amtsgericht Hannover: VR 7957

Design & layout by  
**Trí barvy, s.r.o.**  
Mariánské Lázně, Česká Republika

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.ed>

## EDITORIAL



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The 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021 took place online during the period 21–25 April 2021 under the aegis of "Dunarea de Jos" University, Romanian Academy and Romanian Minister of Health. The conference was attended by more than 1200 participants — specialists in psychiatry and connected fields. The theme of this event was "Virtual addictions and Interdisciplinarity in Psychiatry during the Pandemic".

The Covid-19 pandemic has transformed the world since the beginning of 2020 and has produced many changes in key aspects of healthcare delivery. The emergence of SARS-CoV-2 has been seen as the promoter of many dramatic changes, especially in the medical field, having a huge impact on health systems around the world. Both patients and healthcare professionals have been subjected to a new stress factor that has resonated strongly in everyday life. This leads to an increased risk of association of psychological disorders, especially for patients suffering from chronic diseases, as they have already had a history of psycho-vulnerability.

Child Psychiatry/Human Development stands in focus of this issue. A toddler plays with a smartphone for a couple of hours daily: does it influence his psychomotor development? The observational cross-sectional study in 260 children aged 8–36 months who used digital devices for  $2.13 \pm 2.04$  hours/day, showed a negative effect on language and action performance (Coppola et al). Particular attention should be paid to support, treatment and schooling of children with special educational needs including autism (Cuvinciuc et al), (Elkan et al).

A total of 601 abstracts were applied. From these abstracts 179 papers were selected to be presented oral or as a poster at the Conference. After the peer-review process (double blind), only 24 papers have been proposed to be published and indexed in the Special Issue of the journal Archiv Euromedica. All the reviewers are specialists in the field of the paper evaluation and they are members in editorial boards or peer-review teams of the indexed (WoS) journals.

<http://dx.doi.org/10.35630/2199-885X/2021/11/5.1>

# STRESS AND ANXIETY IN GENERAL POPULATION IN ROMANIA DURING COVID-19 PANDEMIC

Received 30 August 2021;  
Received in revised form 16 September 2021;  
Accepted 18 September 2021

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**ABSTRACT** — The mental health challenges associated with the COVID-19 pandemic overwhelmingly affect the general population. Stress and health anxiety, the risk of losing a job and working at home, online education for children, and isolation have a devastating cumulative effect. This study aims to achieve the following: i) to identify the epidemiological specifics of the perceived stress levels in the general population during the COVID-19 pandemic; ii) to evaluate the correlation between socioeconomic factors and the level of perceived stress and anxiety; iii) to analyze the correlation between the perceived stress scores and the anxiety scores in the general population. We applied Perceived Stress Score (PSS) validated questionnaire and Hamilton Anxiety Scale (HAM-A) online to a group of respondents (N=1.362), profiling the data based on demographics: age, sex, COVID-19 infection, behavior compliance to sanitary limitations, socioeconomic status, and pre-existing health issues. Results show differentiation of PSS values in female and male respondents; occupation significantly influences the perceived stress score among COVID-19 positive respondents. Educational level and income significantly influence the perceived stress score. Low educational level and low income increase the perceived stress score among negative COVID-19 respondents. Subsequent research is needed to clarify other correlations between the perceived stress levels and general population well-being. While certain life conditions enhance the perception of stress, others could provide protective value to demographic groups. Therefore, we suggest further studies and qualitative approaches to general population stress and anxiety during the COVID-19 pandemic.

**KEYWORDS** — stress, anxiety, health, general population, COVID-19.

## INTRODUCTION

Experiencing occasional sentiment of anxiety is a normal part of life. Most of us experience stress and anxiety from time to time. Stress is any stimulus

on the brain or body. In general, people say they feel stressed when they have to deal with several competing demands. In addition, some events might trigger stress, which induces frustration and a state of nervousness (Fulga et al., 2019). Nevertheless, the pandemic has added significant stress in our everyday lives and increased the health anxiety levels in the general population (Carfi et al., 2020; Fulga et al. 2020; Tendforde et al., 2020). According to literature, a persistent state of anxiety and stress is responsible for precarious health and aggravation of existing illnesses (Brand et al., 2010).

## METHODS

For the study, we selected a group within the general population based on consent. Then, we applied online a validated questionnaire, PSS Scale (The PSS Scale, reprinted with permission of the American Sociological Association, from Cohen et al., 1983) to 1.362 respondents. The Hamilton Anxiety Scale (HAM-A, 1959) was one of the first evaluation scales developed to measure the severity of anxiety symptoms, still used in both clinical practice and research. The scale's 14 items define by a series of symptoms and measure mental anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety) (Thompson, 2015). Data were analyzed using IBM SPSS Statistics 26 software, both descriptive and analytical.

The independent variables were tested depending on the type and characteristics of the data. For example, we use the parametric inferential method at a normal distribution at the sample level- respectively ANOVA with a single intergroup factor (OneWay Anova). If the assumption regarding the normality of the distribution is not fulfilled, we use nonparametric inferential methods, respectively, the generalized U test. The data homogeneity was proved through a Levene test (results show  $p > 0.05$ , 95% CI). For the comparative analysis, we apply the OneWay Anova test (95% CI). The significance level (p-value) (maximum error probability) was calculated at an accurate value of 0.05 (5%) and the probability (confidence intervals) at 95%, validating the approach. We apply the Chi-square test in the case of nonparametric analysis and Pearson test as significance test  $\chi^2$ .

## RESULTS

The demographic analysis indicates an increased frequency of female respondents, 85.02% women and 14.98% men. The study group presents a normal distribution of respondents in terms of age; the maximum frequency of cases corresponds to the age group 41–50 years (35.17%). Age in the study group showed maximum values of 84 years and a minimum of 18 years, 75% of cases with values greater than 38 years, of which 25% were older than 53 years. Socioeconomic aspects can significantly impact stress levels and anxiety, significantly interfere with lifestyle (smoking, alcohol consumption), and have substantial health implications. Regarding the status of COVID-19 infections, out of the 1,362 respondents, 15.42% were infected with SARS-CoV-2, and 84.58% were not infected. For 210 COVID-19 positive respondents (age range from 21 to 72 years), the mean age was 43.60 years (standard deviation = 10.18), registering a slightly higher average value for rural male respondents (50.50 vs. 42.34 years). For COVID-19 negative respondents (1,152), the age ranged from 18 to 84 years; the mean age was 45.79 years (standard deviation = 10.97), with no significant differences between the mean values. The comparison of the two categories of respondents, the mean age was significantly higher in COVID-19 negative respondents (45.79 vs. 43.60 years;  $p = 0.959$ ).

Respondents infected with SARS-CoV-2 accounted for 15.42% of the total respondents, with the following epidemiological characteristics: 83.3% were female, respectively 16.67% male, of which 97.41% were under 65 years of age; respondents are mainly urban in 86.67% of cases and 13.33% of rural origin. Conversely, respondents not infected with SARS-CoV-2 accounted for 84.58% of the total respondents, with the following epidemiological characteristics: 85.33% were female, respectively 14.67% male, of which 94.97% were under 65 years of age; respondents are mainly urban in 86.55% of cases and 13.45% of rural provenience.

One aspect relevant to the study was observing sanitary regulations of isolation upon infection and general lockdown rules. In this regard, the data obtained within the COVID-19 positive group show that 15.42% of COVID-19 positive respondents observed the 14 days self-isolation rule. On the other hand, data collected from the 84.58% negative COVID-19 respondents regarding the ten-day self-isolation rule in case of contact with a confirmed case show that only 63.80% of the COVID-19 respondents followed the isolated stay recommendations. In both the positive and negative COVID-19 groups, we identified homogeneity between sexes, backgrounds, and age variables related to the behavior on isolation

recommendations. COVID-19 positive respondents, who did not follow the quarantine/isolation recommendations, represent 36.19% of the total number of infected respondents: 6.67% men and 29.52% women; 35.71% under 65 years of age and 0.48% over 65 years of age; 30.48% urban patients and 5.71% rural provenience. Among the COVID-19 positive respondents, 31.60% stated that they had deaths in the family or acquaintances caused by SARS-CoV-2, respectively 31.59% of the COVID-19 negative respondents.

With regards to identified stress values, the stress score (PSS scale) vs. the sex of the patients indicated the presence of a significant association ( $\chi^2 = 71.20$ ,  $p < 0.008$ , 95% CI between the sex of the respondents and the perceived stress score. The female population (39,52%) presents higher scores of perceived stress (PSS 29–37) compared to 7,14% of the male population within the same range of high score, and 33,33% of female respondents reported a very high-stress score (PSS > 38), compared to 6,67% of male respondents.

The mean values of the perceived stress score in female respondents ( $35.35 \pm 5.87$ ) is slightly higher than that of male respondents ( $35.02 \pm 6.13$ ) among COVID-19 positive respondents. Respectively, in COVID-19 negative respondents, the mean values of the perceived stress score in female respondents ( $24.75 \pm 6.62$ ) are significantly higher than those in male respondents ( $22.00 \pm 6.80$ ). The values in both groups were homogeneous (FLevene = 0.12,  $p = 0.72$  vs FLevene = 0.16,  $p = 0.68$ ).

HAM-A scores show a higher level of anxiety for 47,14% of female respondents with SARS-COV-2 infection, while 8,57% of male respondents present similar scores. Conversely, anxiety levels decreased for respondents who had no infection — 28,73% of the female respondents and 3,81% of male respondents fit the higher level anxiety category.

## DISCUSSION

Higher values of perceived stress score are associated with higher levels of stress and indicate a higher likelihood of interfering with issues such as lifestyle challenges, such as compliance to sanitary regulations during the COVID-19 pandemic. In addition, higher scores in PSS are associated with an increased vulnerability to compromised health, especially if additional stressors are present (loss of a job, end of a relationship, death of a loved one). Finally, higher scores are also associated with increased exposure to stress-induced and psychosomatic diseases.

Anxiety, on the other hand, is either a fear or a sentiment of worry. Anxiety disorders include pathologies, which have typical characteristics of excessive fear and anxiety and associated behavioral disorders. Fear

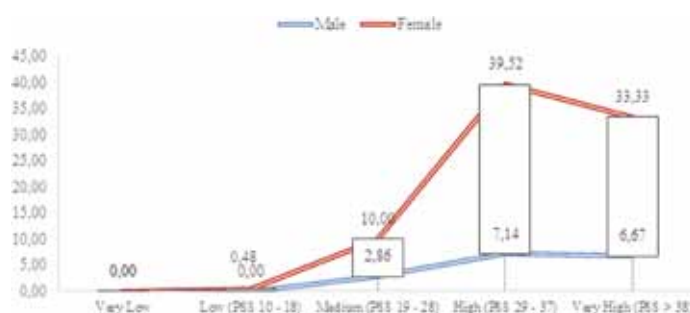


Fig. 1. Perceived Stress Scores in positive COVID-19 respondents by sex

Table 1. PSS values comparison tests

Test	F (95% confidence interval)	p
COVID-19 positive		
Levene Test of Homogeneity of Variances	0,122	.727
ANOVA (Analysis of Variance)	0,088	.767
COVID-19 negative		
Levene Test of Homogeneity of Variances	0,169	.681
ANOVA (Analysis of Variance)	24,747	.000

Table 2. HAM-A scores based on sex and COVID-19 status

	COVID-19 positive				COVID-19 negative			
	F	%	M	%	F	%	M	%
0-4	0	0.00	0	0.00	0	0.00	0	0.00
5-10	2	0.95	0	0.00	157	13.62	57	4.94
11-16	74	35.23	17	8.09	495	42.96	68	5.90
+17	99	47.14	18	8.57	331	28.73	44	3.81

is the emotional response to a real or imminent threat, while anxiety anticipates a future threat. These two states can overlap, but they differ, with fear more often associated with the fight or flight response of the body, thoughts of immediate danger, and escape behavior. Anxiety is more often associated with muscle tension and alertness to prepare for possible danger and precautionary or avoidant behavior. Therefore, evaluating stress and anxiety levels in the general population is necessary, and literature suggests it should be considered as an overall indicator in public health.

The COVID-19 pandemic has effects that are still impossible to estimate globally regarding people's lives and national economies. Even outside the strictest quarantine periods, life contexts are difficult to map from the general population's mental health. Studies conducted so far indicate significant effects on the population's well-being, with specific local demographic and socioeconomic variations, but with a common trunk of manifestations in mental health. The prevalence of depressive episodes, anxiety, and panic attacks affect the population regardless of

the severity of the disease — whether or not a person has had COVID-19.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.2>

# COERCIVE MEASURES IN PANDEMIC PSYCHIATRIC CARE — RETROSPECTIVE STUDY

Received 25 August 2021;  
Received in revised form 14 September 2021;  
Accepted 16 September 2021

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**ABSTRACT** — Coercion raises serious ethical and legal issues in psychiatric care. Coercive medical measures are applied in psychiatric institutions for protective purposes. Alcoholism is a social and medical problem because it especially affects the behavior of the individual. Alcohol consumption can catalyze exacerbations of mental illness and predispose to behaviors with an increased risk of violence.

**AIM:** The purpose of this study is to illustrate medical and legal issues related to coercive measures in emergency psychiatric care during the pandemic.

**Methods:** The study is retrospective, and the data were taken from the observation sheets of patients in the period between March 1, 2020–March 31, 2021, in acute section II in the Institute of Psychiatry "Socola" Iasi.

**RESULTS:** Of those who required coercive measures during hospitalization, most were restraint for symptoms such as: self-aggression and aggression towards others. Mechanical restraint measures were also necessary in cases with hallucinatory-delusional symptoms, associated with self-aggression and aggression towards others. The share of hospitalized patients for alcohol abuse, who required coercive measures, was significantly higher during the pandemic.

**CONCLUSION:** Manifestations of violence among patients with major mental disorders are rare. Mechanical restraint was necessary especially in those who had self-aggression and aggression towards others, symptoms secondary to alcohol consumption. Alcohol consumption amplifies the psychological imbalance in the context of the COVID-19 pandemic.

**KEYWORDS** — coercion, psychiatric emergencies, pandemic.

## INTRODUCTION

Psychiatry has faced many ethical and legal issues since its inception. The development of psychiatry was based on social ideological concepts that pursued ethical goals such as autonomy, independence, the removal of involuntary hospitalizations and compulsory treatment. Urgently, there are certain exceptions that

interfere with the activity of obtaining valid informed consent: patients without disease awareness, unable to decide for themselves (Valcea et al., 2016). Containment, marginalization, stigma, involuntary hospitalization, and involuntary treatment are an important part of psychiatric care in psychiatric emergencies, but at the same time raise many ethical issues (Buda, 2008; Radulescu et al., 2020). Patients with mental disorders, in voluntary hospitalizations, but especially in non-voluntary hospitalizations, may be subjected to various coercive measures such as isolation, pressure and coercion (Olsen, 2003; Widdershoven & Berghmans, 2007). Patients with severe psychiatric disorders often end up in emergency situations where coercive treatment is warranted. These ethical justifications for coercive interventions in most European countries involve criteria such as self-aggression and aggression towards others. Although coercive measures are necessary, they should not become a routine (Janssens et al., 2004). The use of coercion in psychiatry must be accompanied by responsibility and care for the patient with mental disorders (Frueh et al., 2005; Tannsjö, 2004). Coercive practice is the most radical measure in controlling aggression in patients with mental disorders (Ciobotea et al., 2016; Olofsson & Norberg, 2001; Untu et al., 2015;). Coercive measures in psychiatric hospitals have been, are and will be topics with extensive ethical and legal debates in psychiatric care (Luca et al. 2020; Katsakou et al., 2010). The use of coercive measures is regulated in several laws, which differ internationally, depending on the socio-cultural and legal variety. The model of using coercive measures in psychiatric care differs in European countries, restraint and isolation being frequent interventions in psychiatry in patients with aggressive behavior. In the past, measures to abolish compulsory measures in the treatment of patients with mental disorders have been the subject of controversial discussions in several European countries (Brumă (Mancaş), 2020; Hodorogea, 2021; Rotilă, 2021; Strugar, 2018).

Also, in the US, the number of coercive measures that some researchers recalls were nine times more common than they are today. Over time, psychiatry has undergone many changes and the frequency of using coercive measures has decreased significantly (Steinert et al., 2007).

Coercion, a traumatic procedure for the patient, has a negative impact on the doctor-patient relationship. Some studies show that inexperienced psychiatrists have used coercive measures more frequently in patients with mental disorders than experienced psychiatrists. The misuse of these procedures has raised many critical debates. Coercive treatment should only be used in situations where in the absence of this procedure, the patient's health may be endangered. Some studies show that coercive policies have a negative impact on the patient with mental disorders, which will trigger stigmatization and self-stigmatization in significant percentages. However, other authors have shown negative effects of mandatory treatment measures on quality of life and stigma, although there is a decrease in hallucinatory-delusional symptoms. But if several coercive measures are associated, they generate negative effects on the patient with mental disorders, up to self-stigmatization. Coercive treatment such as injectable medication would be more justified than mechanical restraint or isolation. The current study shows many hospitalized patients with alcohol consumption who are associated with mechanical restraint and forced treatment.

## METHODS

The study is retrospective, and the data were taken from observation sheets from emergency hospitalizations from March 1, 2020–March 31, 2021, in section 2 acute from the Institute of Psychiatry "Socola" Iasi. The study group included 71 observation sheets for patients admitted to the emergency room of the psychiatric hospital, according to the mental health law.

## RESULTS

The gender distribution of patients with emergency mental hospitalizations, mechanically restrained, highlighted a higher share of male cases. The distribution of the group, depending on the environment of origin, highlighted the higher frequency of patients with mental disorders, coming from rural areas (Fig. 1).

On the case of patients who were mechanically restrained, 40 unmarried persons was identified, to which is added 11 — divorced persons and widows (in number of 7). Also, hostile, violent behavior is associated with young age and the onset of the disease, but also with the status of single/unmarried person (Fig. 2.).

In the studied group, 39 of the patients with mental disorders are uninsured, a very important aspect in the medical assistance, especially due to their difficulty in obtaining a compensated treatment at discharge.

Patients in the diagnostic category (schizophrenia or other psychotic disorders) are psychiatric patients with a higher level of education (Fig. 3).

The large number of days of hospitalization is associated with mental disorders in the category of psychoses. Factors associated with a short duration of hospitalization are related to the state of marriage, patient occupation, secondary education, and who have not met the criteria for a diagnosis of dementia or schizophrenia (Fig. 4).

Multiple hospitalizations lead to isolation, hospitalism, then over time to institutionalization and labeling. The large number of hospitalizations is associated with mental disorders in the category of psychoses (schizophrenia, bipolar affective disorder, schizoaffective disorder, delusional disorder).

Among the coercive measures in psychiatry, mechanical restraint is the most traumatic measure but necessary especially in emergencies with aggressive potential. Studies show that among the less restrictive coercive forms with less emotional impact during hospitalization is mandatory injectable treatment. But when mechanical restraint is associated with forced treatment, self-stigmatization occurs, and the patient is doubly traumatized.

## DISCUSSION

Psycho-social education interventions aim to reduce the coercion of the patient with mental disorders. Reducing coercive measures such as isolation, restraint, non-pharmacological methods, is a challenge in psychiatric care, and requires trained medical personnel. Forced treatment and mechanical restraint are often necessary measures in psychiatric care. Thus, autonomy is violated in the forms of self-aggression or aggression towards others, in hallucinatory-delusional symptoms in which the patient is not aware of his disease. Coercive measures are still widely used in psychiatric care. Issues regarding ethics in psychiatry remain an open topic, with the possibility of re-evaluating legal and ethical aspects and adapting them to modern times.

### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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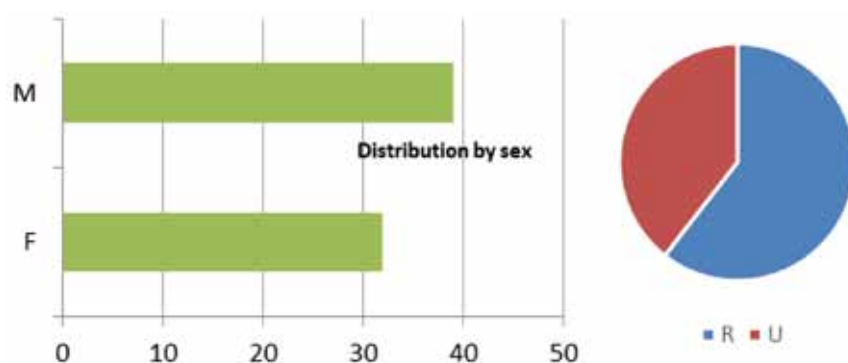


Fig.1. Distribution by sex and means of origin

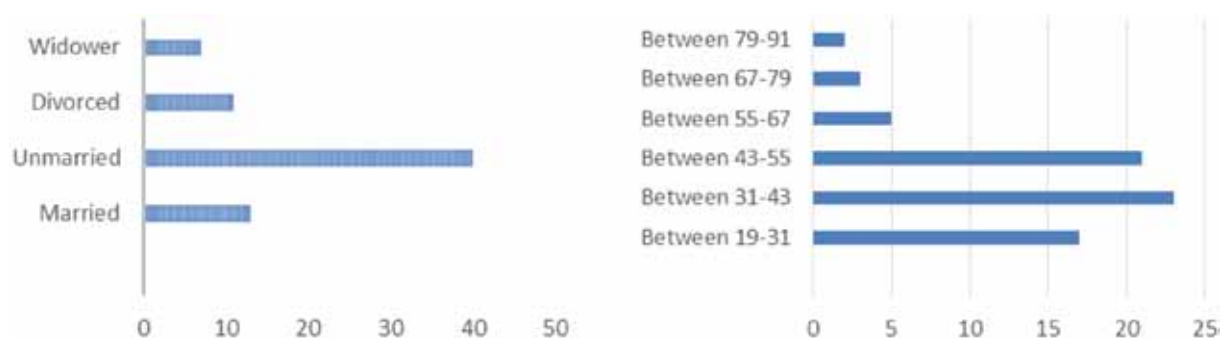


Fig.2. Distribution by marital status and age ranges

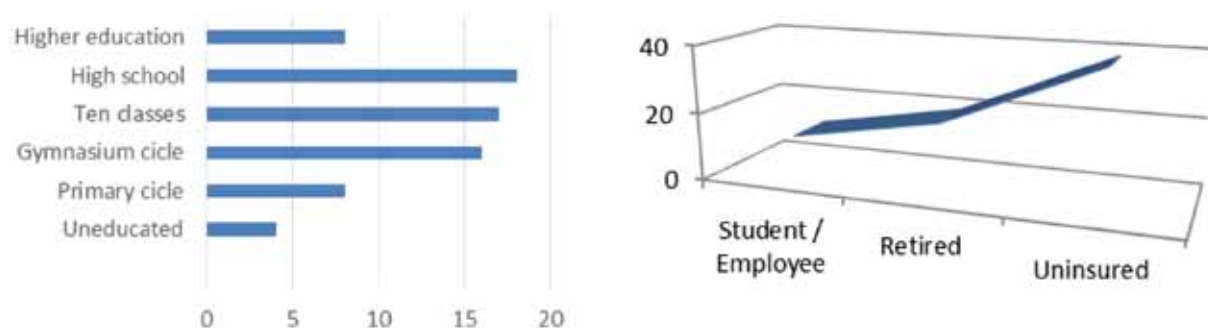


Fig.3. Distribution by schooling and form of insurance

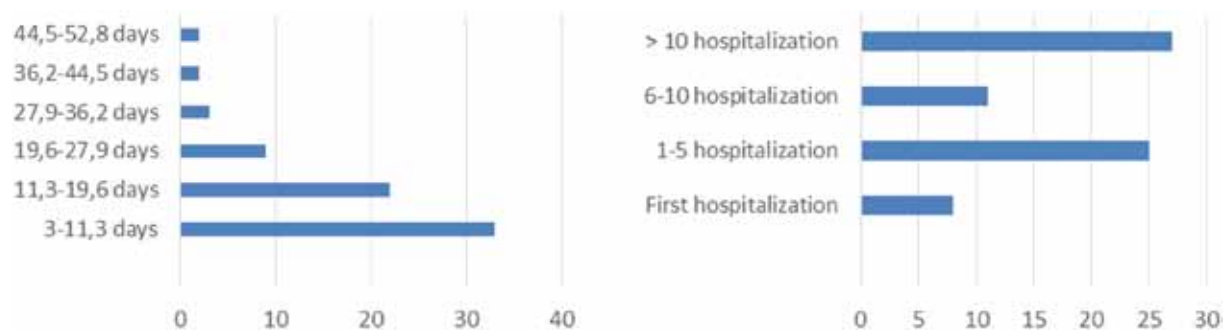


Fig.4. Distribution according to the number of hospitalization days and the number of hospitalizations



- front.net/5498446/rrrb6n2\_2008\_buda\_ro-with-cover-page-v2.pdf?Expires=1629705053&Signature=CiNSkzEgXfz9m5ZL3rvDdOmZrnrcUqUSD5DaF8ZmCK2JOcnzw728wQDeyrHmMHf36Q2leEgg-ZlccYCRnzG9qsqr4yoPJBdER3lbCmhE5RKnUb1k-lyQmv9IYrlpDPlx-OrgLTdnD5L8P0R2qxQmygl8-xpGFxxifB8828htYgftz24h5G2Blq9njfWY8O-mUqQV-bdXRHang4T8aFIIVh6q5QquTlxiQ-HgDUfluSch0nS3x8bQALilg1TnOO~uzq9Oiza-zG CZ1PbnCjWocwZgcxc002PtlbMiEc7cFdQ-DOzWHhZW9GGkVFjx-cSKCX-8ToRBcpS9FXg56x4v56VxAQ\_\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA
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# PREVALENCE OF BURNOUT IN MEDICAL STUDENTS IN ROMANIA DURING COVID-19 PANDEMIC RESTRICTIONS (PRELIMINARY DATA)

Received 20 August 2021;  
Received in revised form 14 September 2021;  
Accepted 16 September 2021

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**ABSTRACT** — Medical student burnout can cause emotional exhaustion and detachment from educational objectives. The objectives of this study were to evaluate burnout using the Maslach Burnout Inventory-General Survey for Students (MBI-GS(S)) associated with online education and pandemic restrictions.

**METHODS:** The MBI-GS (S) was administered to final-year medical students at Romania's most prominent medical faculties from June to July 2021. Descriptive statistics and the internal consistency of the MBI-GS (S) were assessed. In addition, mean MBI-GS (S) subscale scores for burnout were calculated for cynicism (CY), emotional exhaustion (EE), and academic efficacy (AE).

**RESULTS:** 50 medical students completed the online survey, and 42% reported self-perceived burnout. The MBI-GS(S) subscale scores were higher for cynicism (CY) (52%) and low professional efficacy (PE) (60%), and almost half of the students (48%) reported emotional exhaustion (EE).

**CONCLUSIONS:** Recent studies have found strong associations between burnout in medical students and disappointment in their studies, fear of inadequate professional training, not having necessary skills to enter medical practice, being less than satisfied with the educational system and social support, optimism, and motivation in pursuing a medical career. We suggest the continuation of burnout studies to overcome the limitations of a cross-sectional research design. In addition, measuring burnout in the medical student population could be extended to all study years and how adequate educational strategies and wellness initiatives could ameliorate burnout.

**KEYWORDS** — burnout, medical students, well-being, Maslach Burnout Inventory.

## INTRODUCTION

The study aimed to identify burnout in final year medical students associated with online education during the COVID-19 pandemic in Romania. With the distancing measures imposed in the COVID-19 pandemic, the restrictions have affected university

courses unprecedentedly, regardless of discipline (Luca et al., 2020). If for specific student populations the impact on studies has been lower, for medical students, the transition effects, even temporarily, in the digital education paradigm are under continuous evaluation. Lockdown, quarantine measures, and social distancing adversely affect the general population's mental health and student population. Recent studies suggest that the manifestations of anxiety, depression, and stress have increased significantly since the introduction of drastic health security measures worldwide (Baroiu et al., 2021; Grigoras & Ciubara, 2021). However, as the recent epidemiological data show, the situation is far from being controlled globally or nationally, which suggests that the risk of burnout and educational stress is still very much present, and its long-term consequences are still impossible to assess correctly. Thus, the need to continue studies in a longitudinal design on the population of medical students is evident. Moreover, a cross-sectional study considering a level of baseline burnout is needed to assess the risks and consequences of burnout and associated stress in the medium and long term.

## CONCEPTUAL FRAMEWORK

According to the literature, a quantitative study is suitable for mapping trends in stress and burnout depending on the year of study in medical training. Thus, a longitudinal study could represent the continuation of this research, with a significant impact on the assessment and prevention of difficulties associated with poor mental health in medical students and the inventory of possible directions for intervention.

Burnout is gaining more and more attention in educational research. It also plays a significant role in the overall well-being of medical students and has severe implications during the residency period and later. Previous research has shown an increase in burnout after initiating clinical practice in which students face patients, illness, and death (Ishak et al., 2013). In addition, medical students have an increased risk of depression and suicidal ideation (Rotenstein et al., 2016). A cross-sectional study, which included students from seven medical schools, showed that students who face exhaustion are up to three times more likely to have had suicidal ideation in the past. The severity of

burnout is also strongly associated with suicidal ideation, and this association persists after it has adapted to depression in the same population (Dyrbye et al., 2008). Due to the COVID-19 pandemic, most countries around the world have taken extreme measures. Quarantine has been used for centuries to limit the spread of infection by isolating infected or possibly infected populations. Universities have suspended their activities, and education continued online. However, quarantine and social distancing have already had detrimental effects on people's mental health, as depression, anxiety, and stress symptoms have increased dramatically (Ozamiz-Etxebarria et al., 2020).

Thus, studies show that highlighting risk situations by assessing the medical student population is the first step in controlling burnout. Fortunately, the literature suggests that students can recover from this condition by assessing burnout symptoms, and suicidal ideation, if present, is remitted. However, the study by Jordan et al. indicates several reasons why medical studies, unlike in any other field, influence students' mental health. In addition to the implicit rigor imposed by medical studies, the current curricular format, researchers also note expectations that students are "strong" enough to cope with stress to succeed and insufficient attention to mental health compared to physical health. Studies show (Aebischer et al., 2020) that burnout costs are professional or academic and personal - illness, hopelessness, irritability, impatience, poor interpersonal relationships, both with family members and other students, or substance abuse.

The COVID-19 pandemic, according to all current estimates, will continue and develop new facets in affecting the mental status of the general population, health workers, and medical students. Thus, medical education will have to adapt to the context, and digital education in medicine, teaching, and clinical practice will be an ongoing challenge for medical institutions. In addition, a longitudinal study can provide more information on burnout scores in the student population, monitored throughout all years of study, as the pandemic situation varies, as Žuljević et al. (2021) suggest. Other studies also suggest that this phenomenon of digital education in medicine will develop regardless of the epidemiological situation, having many advantages for students (access to resources, simulations, learning efficiency). On the other hand, online studies also have limitations related to students' mental health (stress and burnout). However, there is no consensus on digital medical education, so the situation is still under evaluation, and the advantages and disadvantages of online education are still under discussion.

Every student, educator, and every study situation is particular. Therefore, it is impossible to discuss

a predominant adoption of education in the virtual space for medical studies. Nevertheless, medical education differs from other study contexts firstly by duration and secondly by the need to expose students to the clinical contexts, life, and real suffering of actual patients and professional contexts arising from the specifics of the health system they will practice upon the completion of their studies.

## METHODS

A cross-sectional survey of medical students (MSs) was conducted with a custom-designed Maslach Burnout Inventory General Survey for Students (MBI-GS(S)) to evaluate the prevalence of burnout (Schaufeli et al., 1996).

Fifty medical students (N=50) final study year from leading medical schools in Romania participated in the study through an online questionnaire and informed consent. We used Maslach Burnout Inventory General Survey for Students (MBI-GS(S)) to evaluate the three-dimensional presence of burnout on subscale scores calculated for cynicism (CY), emotional exhaustion (EE), and Low Professional Efficacy (PE). Data were analysed using IBM SPSS Statistics 26 software. The statistical approach addressed the two aspects of descriptive and analytical statistics. Descriptive statistics took into account the classification and synthesis of the obtained data, together with specific statistical indicators that express characteristics and trends of the studied parameter.

Cronbach's alpha was used to calculate the internal consistency of all MBI-SS items and subscales. Reliability scores of  $\geq 0.5$  were considered acceptable, with higher scores indicating greater internal consistency (Taber, 2018) (Table1).

## RESULTS

A total of 50 (N=50) medical students, 36 (72%) female students, with a median (range) age of 24 (23–46), were studied. A total of 24 (48%) of the students present medium and high levels of emotional exhaustion, 26 (52%) present medium and high levels of cynicism, and 30 (60%) students present low professional efficacy. Furthermore, as defined by MBI-GS(S) instrument, 42% of the students show burnout characteristics, as per analysed data. In total, more than two out of five students show burnout symptoms during the pandemic, also related to educational concerns. In addition, the dimensions analysed show significant depersonalization scores, which suggests a detachment from the significance and usefulness of studies and the tendency to become less involved and enthusiastic. One possible explanation offered by similar studies (Zis et al., 2021) is that one of the prerequisites for



**Table 1.** Descriptive statistics and internal consistency for MBI-GS(S) items (N=50)

	Scores				Cronbach's Alpha
	Mean $\pm$ SD	Range	Q25	Q75	
EE	17.08 $\pm$ 9.65	0.00 – 30.00	7.00	27.00	.959
CY	14.04 $\pm$ 8.29	2.00 – 30.00	7.00	27.00	.851
PE	21.90 $\pm$ 8.59	0.00 – 35.00	19.00	27.00	.856

medical education is access to clinical training, which cannot be transmitted through courses or digitally stored information.

Internal reliability (Cronbach's alpha) coefficients of the MBI-GS (S) subscales (EE, CY, PE) can be found in Table 1. The minimum acceptable value for reliability coefficient was 0.5, with values greater than 0.75 being preferable (Taber, 2018) (Table 1).

## DISCUSSIONS

With the distancing measures imposed in the COVID-19 pandemic, the restrictions have affected university courses unprecedentedly, regardless of discipline. If for specific student populations the impact on studies has been lower, for medical students, the transition effects, even temporarily, in the digital education paradigm are under continuous evaluation. Preliminary data show variations in levels of stress, burnout, and resilience over the years of study in medicine and that these values are predictors of the mental health of future doctors. Therefore, burnout prevalence in medical students is of strategic importance for how medical education will continue in Romania, and identifying the most appropriate lines of intervention for the mental health of medical students is imperative.

Further analysis and studies are needed to identify trends and variations in factors that affect the well-being of medical students. However, appropriate interventions will contribute to better academic performance, more psychological stability, and a higher sense of accomplishment, mitigating the risks of stress, anxiety, depression, and burnout.

### Acknowledgment

This research was presented at 5th European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.4>

# BURNOUT SYNDROME FROM PAST TO PRESENT

Received 25 August 2021;  
Received in revised form 15 September 2021;  
Accepted 17 September 2021

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**ABSTRACT** — The burnout syndrome has represented a subject of great interest for both medicine professionals, and those in the sphere of psychology. For years, scientists have carried out researches meant to reveal the main causes and characteristics of this *modern ailment*, but many of the issues arisen remain unresolved. At present, work has become a segment taking up more than half a day. Most times, pressed by their superiors, people grow mentally and physically exhausted, the permanent stress giving birth to various medical conditions that are hard to combat. Unfortunately, the recommendations given by specialists are frequently ignored. Because of this, the symptoms of the *burnout syndrome* affect increasingly more people, regardless of the age range they belong to or their profession. Even if the human resource is finite, it should be exploited very gently. The era we live in, demands that we are productive, while health-related aspects (rest, sport and so on) are deemed less important. The numerous researches have shown that there are certain categories especially affected, as permanent pressure and long work spans are among the main causes for exhaustion. However, there are also certain professions that, despite not requiring an intense physical or mental effort, are predisposed to creating an environment favourable for exhaustion.

**KEYWORDS** — burnout syndrome, depression, workplace, pandemic.

## INTRODUCTION

One of the legacies left by François-Marie Arouet de Voltaire, renowned Enlightenment philosopher, is the following teaching: „Work saves us from three great evils: boredom, vice and need” (Hosy & Bourion, 2017) At present, the economic sphere consumes a finite resource, people, employers demanding results that bring as many financial benefits as possible, man's health being scarcely put first. This is why, throughout the years, the standard of living has enjoyed an important ascension, but what is really the price we are unwittingly paying?

The burnout syndrome has started receiving a special attention along with the evolution of the modern era (Barbu, 2017; Fesun et al., 2020; Novyk &

Mazur, 2021; Tohochynskiy et al., 2020), but certain researchers argue that this issue dates back to Roman times. Given its high incidence, the World Health Organization has included the *disease* in the International Classification of Diseases since 2019, in the section entitled „Problems related to employment and unemployment”, without it being part of the sphere of clinical sufferings.

In literature, the syndrome represented a subject of great interest, its definitions being varied. While certain authors put forth a simple explanation, such as a psychological phase of exhaustion, cynicism and inefficiency at work, others have delved deeper in researching the substance of the problem, analysing its components (Luca et al., 2020b). As such, it has been argued in doctrine that an individual, throughout several weeks, may notice in his own person strong feelings of exhaustion, displaying a considerable decrease in performance, experiencing feelings of alienation from his activity, from colleagues, as well as from the institution (Fengler, 2016).

The burnout syndrome was first described in year 1974, being first mentioned by two researchers: Herbert Freudenberger and Sigismund Ginsburg (cited in Holtz, 2016). Herbert Freudenberger, born in year 1926, was an American psychologist who in year 1980 published a paper entitled *Burn Out: The High Cost of High Achievement*. What it is and how to survive it, in which he defined the syndrome as a state of work-induced exhaustion, due to overworking and the psyche's inability to cope (Lewis, 1981).

In addition to certain consequences that affect the psyche of the afflicted person (impulsivity, frustration, excessive self-confidence, depression, cynicism, decrease of their professional performance, and so on), their body may also suffer from symptoms such as exhaustion, insomnia, permanent fatigue, frequent headaches, gastrointestinal problems and even breathing difficulties, in the most serious cases. (Mikolajczak et al., 2020; Radulescu et al., 2020)

According to the renowned Herbert Freudenberger, the category most affected by this *disease* is represented by people who are very dedicated to their workplace, as well as those whose jobs require a high emotional involvement and level of empathy.

In addition to describing the syndrome, Freudenberger also recommended a series of prophylactic methods, their target being not necessarily an indi-

vidual person, but even the whole organisations they worked in. Thus, the renowned psychologist proposed as methods of combating the burnout syndrome the reduction of the work schedule, the permanent rotation of the individuals working, as well as the use of training techniques meant to prevent the exhaustion of employees. In order to measure the level of exhaustion a person experiences, in year 1980, Christina Maslach created, based on the three phases of the burnout syndrome: exhaustion, cynicism and inefficiency, a questionnaire which included 22 items that covered 3 dimensions of burnout: emotional exhaustion, depersonalization, personal dissatisfaction (Maslach et al., 1997).

Studies carried out on different professional categories revealed that the burnout syndrome may affect a person regardless of their age or health. Thus, for example, in year 1983, a study was carried out with the purpose of researching the impact of exhaustion among librarians. The first phase of research focused on questions regarding the job description, its characteristics, the number of employees working in the said institution, the rest leave enjoyed by the persons working in that environment, as well as the concern of the library management with the personal development of the people working there (Wood et al., 2020).

The second phase focused on getting to know the library's employees, namely their hobbies, whether or not they had pets, their medical history, while the last part of the study included a series of personal questions addressed to the workers, namely civil status, education, their seniority. What was the conclusion of this study? Only a small part of those questioned had actually experienced the state of exhaustion analysed. Most of the questionnaire's respondents proved that they did their job out of passion, expressing their desire to maintain their jobs (Smith & Nelson, 1983). It was, however, proven that practicing a hobby doesn't necessarily ensure the absence of the burnout syndrome; as it affects individuals that are very dedicated to their workplace, perfectionists, there is a high risk for them to allow their passion to lead to exhaustion.

Another study, carried out in Australia, which focused on nurses, revealed a series of interesting results (Patrick & Lavery, 2007). Firstly, it was established that the staff that had received the right to practice by following the courses of a college or university experienced a higher burnout rate than the individuals trained in hospitals. The study also analysed another aspect: the issue of additional hours, which resulted in inner stress, which led to exhaustion (the fact that working extra hours, without additional payment, may represent a discouraging factor for employees was well-known).

Another research, carried out in our country, focused on a sample of doctors specialized in oncology, and employed the Maslach Burnout Inventory (MBI; Maslach et al., 1997) measurement system. The most common symptoms experienced by the medical staff were states of boredom combined with those of indifference, malaise, permanent fatigue, and a feeling of total ignorance.

Looking back to our own times, the impact of the Covid-19 pandemics on the medical systems and hospital staff is overwhelming. Considering the large number of deaths recorded since the beginning of the pandemics until now, health specialists drew attention to the need of supporting and adequately monitoring the manner in which the medical system operates, and its impact on its employees (Luca et al., 2020a, Grigoras & Ciubara, 2021). Many studies have identified factors favouring the increase of physical and mental fatigue, anxiety, stress, and exhaustion. These factors are represented by: the limited resources of hospitals, the exposure to the new virus, whose nature is still unclear, as an additional occupational risk, the lack of sufficient communication and updated information, neglect of personal and family needs, due to the increase of the work volume (Dick, 2020).

One of the researches studying this issue is Occupational burnout syndrome and post-traumatic stress among healthcare professionals during the novel coronavirus disease 2019 (COVID-19) pandemic, published in September 2020 (Raudenská et al., 2020). Healthcare workers are a high-risk segment, considering the demanding nature of their profession and work environment, therefore the prevalence of the burnout syndrome is steadily rising (Luca et al., 2020c). This study correlates the post-traumatic stress disorder with anxiety, depression, low satisfaction and quality of care, and high suicide rates among the population. The results of the study show an increased prevalence of post-traumatic stress disorder and an increase in the occurrence of mental health disorders during the pandemic, both at the level of the general population and that of health practitioners.

## RESEARCH METHODOLOGY

This research analysed a series of reference publications in the field of *the burnout syndrome*, publications which brought to light different results interpreted by each author separately. The technique used within this research was based on a retrospective study, the researchers consulting both international databases (PubMed, Google Scholar) including scientific articles published between years 1981–2020, as well as books on the topic *the burnout syndrome*.

## RESULTS

The results of the study show the importance of the burnout syndrome, its devastating effect, identified since ancient times, and the aggravation of the phenomenon in recent years. Regardless of their work field, people suffer from exhaustion more and more often, but the most aggravating effects were felt during the COVID-19 pandemic.

## DISCUSSION

The burnout syndrome exists since the beginning of humankind. Although it may seem like a *modern ailment*, people were exhausted ever since Antiquity, the best example being the construction of the Egyptian pyramids, architectural miracles that were built with the payment of an expensive human tribute. Every organization is obliged to adopt strategies that prevent the burnout of their employees, turn to the help of specialists, and ensure all necessary conditions to prevent the occurrence of this syndrome.

### Acknowledgment

This research was presented at 5th European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.5>

# DIGITAL TOOLS AND LANGUAGE IN CHILDREN AGED BETWEEN 8 TO 36 MONTHS

Received 30 August 2021;  
Received in revised form 15 September 2021;  
Accepted 16 September 2021

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**ABSTRACT** — AIM: In the last ten years, digital tools have become common in children. Language skills are important and emerge in childhood. The purpose of the present study is to find a potential relation between digital tools use and language skills in children aged 8 to 36 months, considering other factors.

**METHODS:** This is an observational cross-sectional study that included a total of 260 subjects between 8 and 36 months. Parents of all children completed a questionnaire that explores usage of digital tools by children, and another one for language skills (MacArthur-Bates).

**RESULTS:** We found a significant negative relationship between the daily time of use of digital devices and the gestures and actions Quotient ( $\beta = -0.397$ ) in subjects aged 8 to 17 months, and between the daily time of use and the quotient of the lexicon ( $\beta = -0.224$ ) in subjects aged 18 to 36 months.

**CONCLUSION:** We have shown that a major use of digital devices was linked to lower abilities of actions and mimics in subjects 8–17 months of age and to worse language performances in subjects aged 18 to 36 months. The other explored factors were not linked to these results.

**KEYWORDS** — children; digital tools; language; neurodevelopment.

## INTRODUCTION

The language skills develop during the first childhood (Gauvain, 2001) through the exploration of the environment that surround children (Bronfenbrenner, 1979; Burlea et al., 2010). The use of digital devices has increased over the years (Vaala et al., 2015). It was found that cartoons that had a high narrative content were positively associated with wider vocabulary skills and expressive language, if there are not identified physical causes (Lupu et al., 2016a; Lupu et al., 2016b). Parents can stimulate an active use of digital tools. The interactions between parents and their children are

lower due to the presence of television (Courage & Howe, 2010). Almost all 0 to 4 year old used a mobile device (Kabali et al., 2015). Most of children of 1–3 years of age use mobile devices for entertainment, only. Parents refer mobile devices to be more difficult to control in terms of time and contents. Digital tools are often used to calm children (Kabali et al., 2015). There are not many studies on Italian children, toddlers and preschoolers. The aim of this study was to explore the relationship between language skills and the time spent on digital tools in children aged 8 to 36 months, hypothesizing that devices negatively influence language development. Another goal was to highlight the influence of other factors like gender, age, status, content of digital devices and social activities. It was hypothesized that the shared vision and the contents seen may influence the relationship between the use of digital tools and language skills. A difference is hypothesized between children who use digital devices with their parents and those who use them alone.

## METHODS

**Sample and Characteristics** — the present study was carried out in 260 children (140 males=54%) aged 8 to 36 months (mean=23.5±7.18 months) in 20 nursery schools in Salerno (Italy). The sample consisted of two subgroups: 72 children between 8 and 17 months (mean13.8±3.5) and 188 aged 18 to 36 months (mean=27.1 ± 4.4). The sample had a typical psychomotor development and the two subgroups were homogeneous as for the main features considered. Medical or neuropsychiatric conditions were the only exclusion criteria.

**Digital Devices Questionnaire (DDQ)** is a non-standard questionnaire for the assessment of the use digital tools by children.

**Il Primo Vocabolario del Bambino (PVB) Forma Breve** — Italian Adaptation of the MacArthur-Bates Communicative Development Inventory (CDI) Short Form (Fenson et al., 2000): a standardized questionnaire compiled by parents, that consists of the form "Gestures and words", for children between 8 and 17 months, and the form "Words and phrases" to analyze the language skills of subjects aged between 18 and 36 months.

**Statistical Analysis** — Data were expressed as mean, standard deviation and percentage. The distri-



bution of the data was verified by means of a preliminary normality test (Shapiro-Wilk Normality Test). The relationship between the different variables was evaluated by linear regression analysis. The influence of other factors was verified by subsequent moderation analyzes. Bonferroni's correction for multiple comparisons was used; P-values  $< -0.0025$  were considered statistically significant. Data were analyzed by means of SPSS, version 23.0.

## RESULTS

Use of digital devices by children — According to the parents, the first digital tools used by children were television and smartphones, followed by tablets, personal computers and video games. Smartphones (66%) and television (60%) were children's favorite digital devices, but older ones preferred smartphones over smaller ones. The tablet ranked third (252.17%), mainly in older children. The average age of the first use of a digital instrument was always earlier in the group of younger children than in the group of older children. Overall, the mean time spent on digital devices by the children was  $2.13 \pm 2.04$  hours / day. Digital tools were used by children mainly in the presence of their parents (75%) or siblings (9%), while only 5% of cases were used unsupervised; a programmed digital parental control was reported in 11%. Children preferred videos with dialogue (75%). Parents drive digital tool content in 89% of younger children and 41% of older children. Parents in both groups reported allowing their children to use digital tools *to soothe the child* (36%) or *to entertain* (42%). Children often used digital devices even during meals (37%) or before bedtime (9%). According to parents, some children, especially older ones, did not respond to their name when called (2%) or interact with others (5%) when using digital tools. When digital devices were removed, 6% of children were frustrated. About 33% had sleep problems slightly prevailing in the younger group. Finally, 53% of parents said they were concerned about the health consequences of using digital tools, but only 19% of parents consulted their pediatrician.

Relationship between use of digital tools and language skills in children — Linear regression analysis ( $\beta = -0.397$ ;  $R^2 = 0.158$ ;  $p = 0.001$ ) showed a statistically significant negative relationship between the quotient of actions and gestures (AGQ) and the daily total time of exposure to digital devices. Furthermore, linear regression analysis revealed in younger children a statistically significant negative relationship between the total daily exposure time to digital tools and the shares quotient scores and gestures (AGQ).

## DISCUSSION

The aim of our study was to verify whether there was any relation between language skills and the time spent on digital devices in children under 3 years. A significant finding emerged from the analysis of our study is that at least one of the most popular digital devices was used in 97% of children. Digital tools were used by all children aged 18 to 36 months and by 89% of children aged 8 to 17 months. Smartphones (66%) and television (60%) were children's favorite electronic media; a slight preference for smartphones emerged in the group of older children compared to younger children (71% vs 53%). The tablet was preferred by 17% of the total sample and by 21% of children between 18 and 36 months. These results would suggest that there is an increasingly early exposure to digital tools. Digital Devices are used on average 2 h/day, with a slight difference between the two groups. Vandewater et al. (2007) reported that digital media was used by 40% of children aged 6 to 23 months for 2 or more hours per day. Digital devices are used by most children together with their caregiver (75%) or siblings (9%). Automatic parental control is used by 11% of parents. In agreement with previous literature, our results showed that parents let their children use digital devices while they are engaged in other activities (Radesky et al., 2016), to entertain (42%) or to calm the child (36%), during meals (37%) or before the child went to sleep (9%). In some children aged 18 to 36 months, parents reported some atypical behaviors during digital device use, including no response to name when called (2%) or poor interaction with others (5%); 6% of babies cried stubbornly if digital tools was removed. Based on these results, it could be hypothesized the time spent on electronic devices may decrease social relationships and worsen emotional regulation, in agreement with previous studies (Radesky et al., 2014, Reid Chassiakos et al., 2016). On balance, according to reports from parents, about 33% of children had sleep problems, with a slight prevalence in the younger group. Previous studies have already shown an association between sleep disturbances and media overuse by children. Notably, a recent cross-sectional study showed that the daily use of a tablet or smartphone was linked to a shorter total sleep time and a longer sleep onset latency regardless of other factors, for example the type of screen exposure (TV or video game) (Chindamo et al., 2019). Finally, 53% of parents were concerned about their children's health regarding the use of digital tools, but only 19% of parents had already consulted their family doctor. Children who used more time digital devices had a reduced repertoire of communicative gestures. It must be considered that gestures and facial expressions are two important indicators of the pre-

verbal communication skills of children in this age group. In children aged 18 to 36 months, there was a negative relationship between the lexical quotient and the time of digital tools use. In this case, children who used digital tools for longer had less word production. In both cases the relationship found was not significantly affected by gender, age, and socioeconomic status (Reid Chassiakos et al., 2016). Poor cognitive and linguistic skills were associated with early age of onset of media use, cumulative hours of media use and content (Madigan et al., 2020; Moon et al., 2019). Particularly, the evidence shows that media use in children under the age of two has limited benefits; the American Academy of Pediatrics (AAP, 1999, 341–343) discourages media exposure below this age. It would seem, in fact, that verbal and non-verbal problem-solving strategies can be taught thanks to the interaction between parents / guardians and children under the age of 24 months (Brown, 2011). On the other hand, children under 30 months have poor benefit from 2D representations (video deficits) due to the poverty of symbolic thinking, and insufficient flexibility to transfer knowledge to the real world (Barr et al., 2013). Thus, in children under two years old, practical exploration and social interaction would favor the learning of linguistic, sensorimotor, and socio-emotional skills. Other studies suggest that the use of digital devices can benefit children based on age, developmental stage, characteristics of the child, methods of use and content. The use of the digital device, if shared with parents, would lead to an increase in language skills in children (Griffith et al., 2020). In our study the relationship between language and digital device usage was not significantly affected by co-viewing and digital content. This result should better be explored and *active* or *passive* co-vision, should be deepened in future research. Another limitation of the study is to use questionnaires aimed at parents, so further studies should use standardized direct tests to assess language and communication skills through (Radesky et al., 2016).

Over the last ten years, the use of digital tools has become increasingly widespread and, various researchers have shown that new media offer health benefits and risks for young children. In our study it emerged that a prolonged time of use of digital tools was associated with lower linguistic abilities in children between 18 and 36 months, and lower gestural and gestural abilities in children aged 8 to 17 months independently of age, sex, social status economic, content and method of use.

#### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health “Galatia” 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.6>

# VISUOSPATIAL SKILLS AND ANTISEIZURE MEDICATIONS IN CHILDREN

Received 30 August 2021;  
Received in revised form 15 September 2021;  
Accepted 16 September 2021

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**ABSTRACT** — AIM: The aim of this study was to investigate visuospatial abilities in children and adolescents with different types of epilepsy treated with antiseizure monotherapy.

**METHODS:** A neuropsychological assessment was performed at baseline and after one year. 207 subjects diagnosed with epilepsy and pharmacologically treated with monotherapy including levetiracetam, ethosuximide, valproic acid, carbamazepine or oxcarbazepine and 45 controls were recruited and were compared by gender and age. To evaluate visuospatial perception and memory we used Rey-Osterrieth Complex Figure. All subjects performed the test at baseline and after 12 month of drug therapy. For the statistical analyzes we regarded: age at onset of epilepsy, epilepsy type, seizure frequency, side and lobe of seizure onset, ASM dose, epilepsy duration, non-verbal intelligence, age, sex, executive functions. EEG, seizure frequency, and drug dose were also recorded.

**RESULTS:** Subjects with epilepsy executed only in the Immediate Recall test significantly worse than controls at baseline. There are no differences between clinical groups. We observed a correlation between Instant Recall scores and executive functions, age of seizure onset and epilepsy duration. There was a significantly worsened re-evaluation in the mean score to Immediate Recall in the valproic acid, ethosuximide and carbamazepine groups while no change was noticed in the levetiracetam and oxcarbazepine group.

**CONCLUSION:** A visuospatial memory deficit may be present in children with epilepsy compared to control, and this deficit may be related to some aspects of epilepsy and to executive functions; visuospatial memory should be monitored in pediatric subjects which can be influenced by some drugs used for the treatment of seizures.

**KEYWORDS** — epilepsy, visuospatial memory, antiseizure drugs, children.

## INTRODUCTION

Perception skills and visuospatial memory are indispensable cognitive domains for each individual (Burlea et al., 2010; Linn & Petersen, 1986; Sarancha et al., 2021; Vizniuc et al., 2021). Visuospatial perception allows to manipulate non-linguistic symbolic informa-

tion while visuospatial memory allows to store both visual and spatial information (Aliotti & Rajabiun, 1991, Lupu et al., 2016a, Lupu et al., 2016b). These skills begin to develop very early and are perfected during adolescence (Sorrentino et al., 2019). Some studies in literature show that children and adolescents with epilepsy have an impairment of visual-spatial skills; for example in the study by MacAllister et al. (2019) founded that patients with epilepsy have a significantly lower visual perception index than controls. In general, subjects with epilepsy seem to have deficits in some higher cognitive skills such as executive functions, social perception as well as visuospatial skills. These deficits appear to be associated with other factors such as type of epilepsy, frequency of the seizures and even the drug used to treat the seizures (Dodrill, 2004). Antiepileptic drugs are useful for treating seizures, but they can have a negative effect on a cognitive level as they act on the developing nervous system (Operto et al., 2020a; Operto et al., 2020b). However, newer drugs appear to have little impact or no interference on cognitive functioning, such as levetiracetam or perampanel (Operto et al., 2019; Operto et al., 2020c). The aim of our observational study is to analyze the visuospatial abilities of perception and memory in pediatric and adolescent subjects suffering from different forms of epilepsy treated with pharmacological monotherapy, using standardized tests at baseline and after 12 months of therapy. We also evaluated the incidence of clinical and demographic variables (age at onset of epilepsy, epilepsy type, seizure frequency, side and lobe of seizure onset, ASM dose, epilepsy duration, non-verbal intelligence, age, sex, executive functions) bounded to epilepsy on visuospatial abilities.

## RESEARCH METHODOLOGY

**Participants** — The clinical sample in this study consisted of 207 children and adolescents aged 6 to 18 years old with a new diagnosis of epilepsy recruited at the Child Neuropsychiatry Unit of the University Hospital of Salerno between January 2013 and January 2020. The control group includes 45 healthy subjects homogeneous for age and sex recruited during a screening program. The parents of all participants provided written informed consent after receiving a full description about the purpose of the study and about procedures involved.



**Assessment** — All participants were administered tests to evaluate their non-verbal intelligence abilities (Raven's Progressive Matrices). At baseline Rey-Osterrieth Complex Figure Test (RCFT) was administered to the control group and clinical groups to evaluate visuospatial perceptual and visuospatial memory ability and EpiTrack Junior was administered to subjects with epilepsy for assessing executive functions. After 12 months of antiseizures monotherapy: subjects with epilepsy (n=183) after 12 months performed Rey-Osterrieth Complex Figure Test (RCFT).

**Rey-Osterrieth Complex Figure Test (RCFT)**

— It is a neuropsychological test examine the ability to reproduce a complicated drawing by copying and then drawing from memory recall, it is used to evaluate visuospatial perceptual and visuospatial memory ability in children and adults. The drawings are evaluated following by assigning a score between 0 and 2.

**EpiTrack Junior** — EpiTrack Junior is a screening tool for assessing executive functions, it includes six activities aimed at attention, working memory and executive functions. The age-corrected maximum score is 49 and scores below 32 points indicate a deficit in executive function with different levels of severity.

**Statistical Analysis** — Scores were expicted as mean  $\pm$  standard deviation (SD) and the percentage of participants with a score  $<2$  standard deviations was considered. Following the use of the Kolmogorov-Smirnov normality test and after verifying the presence of data not normally distributed, non-parametric tests were used for our analysis. Chi-Square test with Yates correction or Fisher's exact test were used to compare proportions; Kruskal Wallis H test was used to compare mean scores in two independent samples, and Wilcoxon's signed rank test was used to compare mean scores in two related samples. The two-tailed Spearman rank correlation test was used to analyze the relationships between the variables and the correlations were judged as follows:  $<0.2$ , low;  $0.21$  to  $0.40$ , fair;  $0.41$  to  $0.60$ , moderate;  $0.61$  to  $0.80$ , good;  $0.81$  to  $1.00$ , very good. Statistical Package for Social Science software, version 23.0, was used to analyze the data (IBM Corp, 2015) and our assumptions were analyzed using Bonferroni's adjusted alpha levels of  $0.0025$  per test ( $0.05/20$ ).

## RESULTS

**Clinical and control sample characteristics** —

634 medical records were initially considered, but 427 were excluded due to the presence of ASM polypharmacy and other neurodevelopmental disorders. In addition, we retrospectively enrolled 207 children and adolescents with epilepsy aged 6 to 18 years (mean =  $10.35 \pm 2.39$ ) who performed the Rey-Osterrieth Com-

plex Figure Test before and during ASM monotherapy with levetiracetam (n = 58), valproic acid (n = 60), ethosuximide (n = 22), oxcarbazepine (n = 23) or carbamazepine (n = 44). We also recruited a control group consisting of 45 age / sex matched subjects. Subjects in the 5 ASM groups did not differ significantly in demographic or clinical characteristics. After twelve months of treatment with ASM, all subjects in the clinical group had a  $\geq 75\%$  reduction in seizures or were seizure-free. At the one year follow-up, different ASM treatment led to comparable reductions in seizure frequency. The five clinical groups and the control group did not differ significantly in non-verbal IQ, as found by the standard progressive matrices.

**Assesmet at baseline** — Analyzing the scores obtained on the Rey-Osterrieth Complex Figure Test-Direct Copy test, 6.76% of the subjects with epilepsy showed a score below normal ( $<5^{\text{th}}$  percentile), while 7.25% had a score at the low limits of normal ( $5^{\text{th}}$ - $15^{\text{th}}$  percentile) while the controls scored 0% a score below normal and 2.23% a score at the low limits of the norm. These differences were not statistically significant on Fisher's exact test. As shown by the Kruskal-Wallis H test for unpaired sample, average of Rey-Osterrieth Complex Figure Test -Direct Copy scores of the five treatment groups (Leviracetam, Valproic Acid, Ethosuximide, Oxcarbazepine, and Carbamazepine) and the control group did not differ significantly from each other. The Spearman correlation test showed that, in the total sample of epilepsy patients, Rey-Osterrieth Complex Figure Test -Direct Copy scores were related to age, non-verbal QI and age of onset of epilepsy, instead there is no there was no significant association with the duration of the seizure frequency. Furthermore, no significant difference was found in average scores based on variables of sex, side of onset of seizures and the seizure onset lobe (Kruskal-Wallis test). Evaluating the Rey-Osterrieth Complex Figure Test -Immediate Recall scores we found that 7.25% of the subjects with epilepsy showed a below normal score ( $<5^{\text{th}}$  percentile), 12.56% of patients showed a score at the low limits of normal ( $5^{\text{th}}$ - $15^{\text{th}}$  percentiles) versus 2.23% and 4.45% of the control subjects respectively. These differences were not statistically significant on Fisher's exact test. In the sample of patients with epilepsy, Rey-Osterrieth Complex Figure Test -Immediate Recall scores were related to age, age of onset of epilepsy and duration of epilepsy, but no meaningful association with non-verbal IQ and seizure frequency was found, as shown by Spearman's cell linking test. Furthermore, no significant difference was found in average scores based on variables of sex, side of onset of seizures and seizure onset lobe (Kruskal-Wallis test).

**Evaluation at time 1 and comparison of baseline and time 1** — The re-evaluation was performed only in subjects with epilepsy (n=183) after 12 months. Rey-Osterrieth Complex Figure Test -Direct Copy scores in 9.84% of patients were below normal (<5<sup>th</sup> percentiles), while 8.20% of patients achieved a score at the low limits of the norm (5<sup>th</sup>–15<sup>th</sup> percentiles). On the RCFT-Immediate Recall test 21.74% of subjects with epilepsy scored below normal (<5<sup>th</sup> percentiles), and 10.14% scored at the low limits of the norm (5<sup>th</sup>–15<sup>th</sup> percentiles). We found that the mean Rey-Osterrieth Complex Figure Test -Direct Copy scores were not significantly different from baseline in any of the 5 drug treatment groups. Comparing the mean RCFT-Immediate recall scores we found that in the VPA, ETS and CBZ groups the mean scores were significantly lower at Time 1 compared to baseline, while in the LEV and OXC groups the mean scores did not differ at Time 1 compared to the baseline.

## DISCUSSION

There are many elements that contribute to cognitive functioning in children and adolescents with epilepsy (Lagae, 2006). In recent years, the incidence of ASM therapies on cognitive functioning and memory has been highlighted. For this reason, the choice of the type of drug therapy for crisis management must be made with care, especially when it comes to pediatric subjects. In fact, in children, cognitive skills are essential for good adaptability in all contexts of life (Lagae, 2006). The sample from our longitudinal retrospective study consisted of 207 epileptic patients who were introduced to drug monotherapy with levetiracetam, ethosuximide, valproic acid, carbamazepine or oxcarbazepine. All patients underwent a neuropsychological evaluation for visual-spatial perception and memory both before and after twelve months from the introduction of the therapy. In accordance with the previous studies our data showed that subjects with epilepsy had impairment of visuospatial memory skills while the visuospatial perception was preserved. The worst performance in visuospatial memory in our sample was linked to an earlier onset and longer duration of epilepsy and executive functions, while there was no significant association with non-verbal intelligence. The data collected, support the evidence that an early onset of seizures can lead to a worse deterioration of cognitive functions, affect the development of the neuronal system still in development (Kellermann et al., 2015; O'Reilly et al., 2018). In this study there is a positive relationship between visuospatial memory skills and executive functions at baseline, not in visuospatial perception skills. In future studies, the role of executive functions, such as working memory or focused atten-

tion, on visuospatial memory could be investigated with a multifactorial analysis. It is possible hypothesize that visuospatial memory is linked to executive functions, which in epileptics may be deficient or impaired by drugs (Operto et al., 2020a). In our sample, at 12 months of re-evaluation, visuospatial perception skills were not significantly different from baseline in the five treatment groups while visuospatial memory skills changed depending on the type of ASM employed. Kruskal-Wallis H test to compare mean scores showed that the mean Rey-Osterrieth Complex Figure Test-Immediate Recall scores of the levetiracetam, ethosuximide, valproic acid, carbamazepine or oxcarbazepine group were not significantly different from each other, but were all significantly lower compared to the control group. In particular, in our study it was found that visuospatial memory is more impaired in children and adolescents taking older ASMs (valproic acid, ethosuximide and carbamazepine) than in newer drugs (levetiracetam and oxcarbazepine). This data agrees with the data already present in the literature (Hessen et al., 2009). In agreement with our results in the literature, a good tolerability to levetiracetam and oxcarbazepine has been shown (Tziritidou et al., 2005). Furthermore, the study data are in line with another of our previous studies (Operto et al., 2020a). A limitation of our study was the small size of the truck, as well as the use of a retrospective study of a single test to evaluate visuospatial abilities. In addition, no multiple correlation analyzes were performed that took into account multiple neuropsychological variables that could affect performance. In future studies, the role of individual executive functions, such as working memory or focused attention, on visuospatial memory could be investigated with a multifactorial analysis.

## CONCLUSION

This study shows that some of the antiepileptic drugs used in pediatric age have a different tolerability on the cognitive profile and in particular on the visuospatial memory abilities after 12 months of treatment. Specifically, valproic acid, ethosuximide and carbamazepine can contribute to a worsening of memory-visuospatial performance, while levetiracetam and oxcarbazepine do not seem to have the same influence on these abilities. Future studies with larger samples and placebo-treated control groups would be useful to confirm these results.

### Acknowledgment

This research was presented at 5th European Conference of Psychiatry and Mental Health “Galatia” 2021.



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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.7>

# THE EFFECTS OF THE PANDEMIC ON CHILDREN WITH ASD (AUTISM SPECTRUM DISORDER) AND OTHER PERVASIVE DEVELOPMENTAL DISORDERS AND THEIR FAMILIES

Received 20 August 2021;  
Received in revised form 11 September 2021;  
Accepted 14 September 2021

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**ABSTRACT** — AIMS: This paper investigates the effects of the pandemic on children with ASD and other pervasive developmental disorders and their families. There is a significant number of studies in the literature on the effects of the pandemic on the population, but this concept has been less studied among parents of children with autism spectrum disorder.

Thus, this paper aims to determine whether there are significant effects of the pandemic on children with ASD and other pervasive developmental disorders and their families.

**METHODS:** A group of participants consisting of parents of children with autism was used to conduct this research.

**RESULTS:** The results of the research indicate that there are significant differences in the lifestyle of parents and children diagnosed with autism spectrum, before and during the COVID-19 pandemic.

**KEYWORDS** — autism, family, child, autism spectrum disorder (ASD), pandemic.

## INTRODUCTION

We chose to study this topic, because autism spectrum disorder is a condition that is showing an increasing incidence in the last decades.

The child with special needs has an impact on the family as well. Families play an important role in the child's recovery process, and the way family members react and the way they relate to the child and his needs, which can directly impact the child's recovery (Damian et al., 2017; Haraz, 2019; Teslenko, 2020; Valache, 2020).

Parents with children with autism experience a unique stress that is not found in any other parent with a child with other disabilities (Deater-Deckard et al., 1996).

This uniqueness caused by the fact that the parents may notice that as the child grows, loses from

the acquisitions, the child seems physically healthy, but has many behavioral deficiencies. Parents experience the inability to control the child's behavior. The major source of stress for parents is related to the fact that the society shows a lack in understanding of the child's condition (Burlea et al., 2010; Woodgate et al., 2008).

In general, parents are the first to feel and realize that something is wrong with their child. Unfortunately, due to the complexity of the symptoms, but also out of ignorance, some parents wait for the child to grow up, which is a big minus in the little one's recovery (Chilnicean, 2011).

## THEORETICAL FRAMEWORK

### *Resilient family*

With the emergence of the first theories in the literature that refer to the term family and its functioning socially, the typical family was defined as an exchange of traits, specifically, between two people of the opposite sex, resulting in the traditional family with roles and specific statuses (Parsons & Bales, 1955, cited in Finley & Schwartz, 2006). Over the past two decades, much research has shown that family processes are based on individual health and emotional involvement (Beavers & Hampson, 1990).

The parental status of a child with disabilities is built around a specific dynamic. Children are a source of joy, but also a source of unhappiness. The history and evolution of the child with disabilities begins at the moment of doubt and uncertainty at first sight of the mother of the child. At first, she examines the bodily, physical integrity of the newborn, then focuses on gender. This first look at the newborn, in the case of a child with disabilities, is loaded with doubt, which gradually becomes a certainty. The announcement of the existence of a deficiency of the newborn, the first stage of a long and difficult evolutionary process for both the child and the family, has a strong impact. In such cases, each family has its own path, its own way of reacting, depending on the personality of the members, the professional and economic situation, the geographical area in which they live, the support from the extended family, the possibilities of access to

community life, etc. However, the difficulties that the family has to face are similar. (Gavriliță, 2020).

In the case of families of children with disabilities, stress and involvement are stronger than in the case of families with typical children. The feeling of stress is fueled by the fact that parents face a multitude of inappropriate behaviors experienced by the child. Once the therapeutic plan is implemented, the whole family must adapt its behavior, according to the instructions given by the little one's therapist. (Gavriliță, 2020).

In practice in the office, I realized that there are families who, once they found out the diagnosis of the little one, had to change their whole life. One of the families that caught my attention, presents a little girl with a diagnosis of Autism Spectrum Disorder, but also sensory desynchronization. Due to this seasonal desynchronization, the little girl needed continuous movement, which determined the family to spend more than 20 hours a day, in the car, while walking.

### ***Autism***

Autism, until 4-5 years ago, was considered deaf. If in Down Syndrome, from a physical point of view can easily recognize the child's disease, in the case of autism, at the opposite pole, the child has a normal physical appearance. His behavior, on all levels is what betrays the disease (Chilnicean, 2011).

Children's behaviors persist or intensify, and the faster they intervene, the more these developmental disorders can be corrected, even cured, avoiding their amplification over time. It is very important to know that for the child with autism, every second, every hour, is extremely important for the whole recovery process (Chilnicean, 2011).

Integrated into Pervasive Developmental Disorders, along with other disorders such as: Asperger's Disorder, Disintegrative Childhood Disorder, Rett Disorder, Global Developmental Disorder — including atypical autism, as established by the American Psychiatric Association in DSM 4, Autism Disorder or a neuro-biological developmental disorder that affects the functioning of the brain, more specifically affects the normal development of the brain, which is responsible for communication, social interaction and cognitive functioning (Chilnicean, 2011).

### ***Specific therapies***

It goes without saying that a child with a cognitive disability needs an education, with the help of specific therapies. applied behavioral analysis, ABA therapy has developed, coming to the aid of more and more families. Intensely applied, with seriousness and consistency, ABA therapy begins to bear fruit after 2-3 years. ABA can help even to full recovery, depending

on how quickly the therapy started, the child's resources and his diagnosis. ABA is considered a science of human behavior. The ABA method targets the learning of certain skills and their generalization in the natural environment (Chilnicean, 2011).

It is very important to know that every child is different, and the results are different from child to child.

## **METHODS**

### ***Objective***

This paper aims to discover the effect of the pandemic on children with ASD and their families.

We chose this goal because I believe that Autism Spectrum Disorder is gaining momentum in today's society, and the role of the family in the context of the COVID-19 pandemic is very important, and the mission of parents is hampered by the epidemiological context we all go through.

### ***Hypothesis***

There are significant differences in the lifestyle of parents and children diagnosed with autism spectrum, before and during the COVID-19 pandemic (Luca et al., 2020).

### ***Description of the sample***

This presentation was made on a group of parents whose children were diagnosed with Autism Spectrum Disorder.

The parents belonged to an autism intervention association in Bucharest.

### ***Research design***

The research design is transversal.

This type of design was chosen due to its usefulness, but also due to the fact that the research hypothesis does not require a longitudinal design and does not present elements that require the use of an experimental design.

### ***Data collection procedure***

The data needed to make this presentation were collected from the parents of children with Autism Spectrum Disorder.

During the training, the respondents were assured that they will benefit from the absolute confidentiality of personal data according to the deontological norms approved by the Romanian College of Psychologists and according to the personal data protection law, stating that the data collected and the results obtained will be used only for research purposes.

## RESULTS

The aim of the research is to find out if there are significant differences between the lifestyle of the parents of children with ASD, before and during the COVID-19 pandemic (Baroiu et al., 2021).

The results show that there are significant differences in lifestyle. The child with special needs is a real challenge for the whole family. The current epidemiological context has come as an additional challenge for the parents of these children (Grigoras & Ciubara, 2021).

There is a big difference in adapting families to this situation. Not all families are deeply affected. The variability is explained by the severity of the child's diagnosis. The main fear presented by the parents was the one related to the closure of the centers where their little ones did therapy. Following these events, the parents had to take on the role of therapist.

Another major change and a reason mattered. The concern was caused by the loss of a job of one of the parents, which meant the reduction of therapy hours for the little one.

The parents say that another provocative thing was to desensitize the child, in the direction of wearing a protective mask. Some parents say that a simple leave to the store has turned into a whole process of preparation for the little one.

In conclusion, parents realized the importance of being involved in the autism community, even during the pandemic, and that they cannot do everything on their own. Parents say that they have learned more about their children's specific needs and abilities.

## DISCUSSION

The aim of the research is to test whether there are significant effects of the pandemic on children with ASD and other pervasive developmental disorders and their families.

The pandemic has certainly left its mark on all people, especially children with ASD and their families. The parents claim that at the beginning of the pandemic, they experienced feelings of fear. This fear was fueled by the whole context, but especially by the fact that most therapy centers, where their little ones carried out therapeutic programs, suspended activity. At that time, parents asked themselves questions such as: the child?" "If I do not know how to manage certain behaviors that may occur?"

Parents had to adapt to a new way for their little ones to continue therapy, this being telemedicine, online therapy.

The parents looked for solutions on social media. They joined various groups, where there were other parents in the same situation, but also specialists in the

field of psychology. One of the goals of those groups was to make family members aware that they can improve their verbal and nonverbal communication skills. This helps them gain new ways to communicate and interact physically with the child with autism, as well as with other members of the family.

Parents have realized the importance of being involved in the autism community, even during the pandemic, and that they cannot do everything on their own. Parents say they have learned more about their children's specific needs and abilities and that they have communicated with other parents to learn from their experience to become better parents for their own child.

Parents say that they used social networks to get in touch with other parents in the same situation and to find solutions for the different new situations they live.

In social networking groups, parents have the opportunity to ask questions about the difficulties they face in their relationship with their children. The fact that they can learn how to manage certain behaviors, makes them no longer feel powerless and much more in control of the situation.

The parents say that until they participated in these groups, they did not have the support of the others. Most of the time, relatives or friends put more pressure on their shoulders. They saw the situation as sad, frustrating, very tiring, but because they were talking about their own children, they wanted to do everything they could. After participating in meetings on Zoom, parents found ways to communicate them to their extended family, or close friends the experience they are going through.

The effects of the COVID-19 pandemic can be seen everywhere in the lives of children with ASD and their families. The parents say that the first problem they faced was related to the difficulty in convincing the children to wear the face masks. Many children refuse to wear a mask, which develops a feeling of helplessness, frustration and confusion in their parents.

Another important thing acquired during the pandemic is the acceptance of feelings. Parents have learned to talk about how they feel. They have learned that it is normal to have contradictory feelings and sometimes be angry.

In conclusion, there are significant effects of the pandemic on children with ASD and other pervasive developmental disorders and their families. Most parents say that social media had a strong impact during the pandemic and that they felt closer to other parents through social networks. Another very important role in the whole process was played by the online workshops. Through them, the parents maintained contact with the specialists.



*Acknowledgment*

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.8>

# ANOREXIA NERVOSA IN ADOLESCENTS — CASE REPORT

Received 20 August 2021;  
Received in revised form 15 September 2021;  
Accepted 18 September 2021

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**ABSTRACT** — Although there is no universally recognized protocol for the evaluation of eating disorders, all specialists agree that a broad-spectrum evaluation is needed, given the multidetermined nature of this pathology. Therapeutic intervention, supportive psychotherapy and CBT, have as main objective cognitive restructuring, identifying and addressing psychological causes that cause, precede and trigger eating disorders - anorexia nervosa.

**AIM:** To identify the role of psychotherapy and the entire interdisciplinary team in the treatment of anorexia nervosa. **CASE DESCRIPTION:** We present a case report of a 15-year-old girl diagnosed with anorexia nervosa, where I applied CBT. This case confirms by the objectives achieved, that CBT has a primordial role, in interrupting the vicious circle, somatic symptom- psychic-pseudo somatic symptom and to restore the emotional balance of the patient diagnosed with anorexia nervosa.

**CONCLUSION:** Compliance with psychiatric treatment increases, by addressing psychotherapy, as a clinical intervention, in the treatment of this complex condition.

**KEYWORDS** — anxiety, panic attacks, anorexia nervosa, eating disorders, cognitive behavioral therapy CBT.

## INTRODUCTION

Starting from the definition of anorexia nervosa, it represents *lack of appetite* as a specific eating disorder, not a symptom. The main interest in this condition is to lose as much of the weight of the body as possible, even led to an extreme, of a pathological nature, embodied in the constant refusal to eat and the fear of gaining weight (Masoumeh, 2019). The image of one's own body is not accepted, in the vision of teenage girls, who manifest this disease, the desire to be as slim as possible, equals the physical beauty and the image of others about them (the notion of being popular, among groups.). With an ever-increasing incidence, in recent decades, anorexia nervosa is the mental disorder that presents the highest risk of mortality among adolescents and whose treatment is often extremely difficult, (Enea & Dafinoiu, 2012). Teenage girls are the ones who adopt different diets, to have an enviable

figure, even resorting to extreme gestures, starvation, diets, low in protein and vitamins, with rituals in general behavior. The psychological profile of the patient with anorexia nervosa, is structured, mainly by the form of temperament- impulsive - with very high thoughts or standards of self-assessment, unrealistic, with mental inability, to rapport to notions of the super, ideals and personal needs (Radulescu et al., 2020). Scientific research (Acasandre & Bancov, 2020; Chaikovska et al., 2020; Georgescu et al., 2020; Marin, 2018) estimates that this condition has a multicausal origin related to factors: family factors; cultural factors and individual factors (other psychiatric disorders).

Modern western culture promotes anorexic silhouette in general, models are the ones that confront this aspect, and teenage girls take over, through the media such models of behavior, being very careful with the fashion style and diets, to gain popularity and notoriety among young people. DSM classifies eating disorders based on the age of onset and the similarities between the symptoms and the food behavior of the infant period or the small childhood, characterized by persistent disturbances of the feeding process (rumination and feeding), (American Psychiatric Association, 2000). Moreover, anorexia is a mental disorder, presenting an increased risk of death, a risk 4 times higher than in the case of major depression; and the risk increases, around the age of 20.

### *Anorexia involves a grueling lifestyle with certain symptoms:*

1. Imposing drastic limits on the amount of food allowed.
2. Intense fear of gaining weight.
3. Less weight than normal; distorted perception of one's own body, appreciation as overweight.
4. The challenge of vomiting, which develops others.
5. Cutting food into very small portions.
6. Use of diuretics, laxatives or appetite-reducing medicines to lose weight.
7. A draconian exercise program.
8. Refusal to eat with other people.
9. Hide or remove food.
10. Hiding food or removing it covertly during meals.
11. Avoid topics targeting eating disorders.
12. Letprogy, fatigue, slow thinking, confusion.

13. Muscle weakness and loss of muscle mass.
14. Edema of the extremities.
15. Feeling cold, intolerance to low temperatures.
16. Constipations.
17. Irritable colon, (Anorexia..., n.d.).

Treatment for anorexia is carried out through an intradisciplinary therapeutic approach (doctors, mental health specialists, dietitians, psychologists, psychotherapists). The alternative to the treatment of anorexia is supportive psychotherapy and CBT. Family therapy is another therapeutic method, especially in the case of adolescents, who cannot make good decisions about eating or the process of growth and education.

***Warning signs to best identify  
anorexia nervosa, emotionally  
and behaviorally:***

1. Dramatic weight loss.
2. Wearing loose clothing to hide weight loss.
3. The teenager is concerned about weight, food, calories, grams of fat and diets, excessively.
4. Refuses to eat certain foods, switching to restrictions against certain categories of foods (e.g. no carbs).
5. Complains of constipation, abdominal pain, cold intolerance, lethargy and or excess energy.
6. Develop food rituals (e.g. eating food in a certain order, excessive chewing, rearranging food on a plate.)
7. Arranges meals for others but without eating.
8. He seeks excuses to avoid meal times or situations involving food.
9. Expresses the need to burn calories taken.
10. Maintains an excessive and rigid exercise regime, despite weather, fatigue, illness or injury.
11. Retires socially from the group of friends and ordinary activities.
12. Has limited social spontaneity.
13. He has an intense fear of gaining weight or being fat, even if he is underweight, (Dafinoiu, 2010).

In the self-starvation cycle of anorexia nervosa, the body is denied essential nutrients that it needs to function normally. Thus the body is forced to slow down all its processes to save energy, resulting in serious medical consequences.

## CASE DESCRIPTION

C.R., aged 15, the student shows up for therapy, accompanied by her father. The patient was diagnosed with anorexia nervosa six months ago and is undergoing psychiatric treatment. In the last two months, the teenager, amid an overloaded period, has shown panic

attacks, accompanied by feelings of helplessness and anxiety, about everything: that she will not pass the national evaluation exam and always finds it difficult to concentrate.

The patient experiences states of physical weakness and has an intense fear of gaining weight or being fat, even if it is underweight; has a limited spontaneity and withdraws from the group of friends and from ordinary activities and she becomes more and more socially isolated and considers that all children of her age are mischievous and often make comments to her physical appearance and her grades obtained at school. The teenager states that: she does not like school and the school environment, all this exhausts her mentally, daily and the only activity to which she responds with pleasure is: drawing, being passionate about cartoons — ANIME, spends a lot in front of the computer, watching movies and finds all kinds of excuses to avoid meal times or to participate actively in different tasks. The investigation of the more distant history shows that in the past the teenager had social relationship problems and was the victim of bullying, both in school and in the group of friends. Symptoms of anxiety, low self-esteem and pessimism are general states in its conduct.

C.R. is the third daughter in the family and is very attached to her father and the teenager mentions that he represents the reference person for her. The mother is hyperprotective and is always careful with the child's eating behavior and offers her a lot of information about nutrition, being the manager of a store profile. The affective relationship with the other two older sisters is deficient, with disorganized attachment, due to age differences between generations and that the two come from another marriage of the mother. The patient has also received psychological counseling and specialized therapeutic support, but considers that no specialist has so far been able to stimulate her, cognitively or emotionally, the teenager being very resistant to stimuli and manifesting states of chronic boredom and inner vacuum. It is observed from psychological examination, a marked and persistent disturbance of identity, with uncertainties regarding: self-image or sexual orientation, long-term objectives or vocational orientation, preferred type of friends and repeated self-mutilation behavior. The patient is extremely sensitive to the notion of rejection and experiences the feeling of abandonment, following the lowest stressor and therefore has a greater need for control and self-control. Cognitive style is described as inflexible and impulsive, with rigid abstractions, adolescent emotions fluctuate between hope and despair, because, consider that external circumstances are far beyond her control and therefore identify and the inability to tolerate frustration.

*Supportive psychotherapy and CBT:*

The purpose of therapeutic intervention, in this case was the realization of the following:

1. Immediate objectives: identifying and addressing the psychological causes that cause, precede and trigger disorders of food behavior; decrease in anxiety and catastrophic scenarios for interpreting somatic symptoms; increasing self-esteem and personal worthiness.

2. Long-term objectives: reducing negative distorted thinking; developing social skills and stimulating assertiveness; for panic attacks, the techniques used were: cognitive restructuring, to reduce catastrophic interpretations of automatic thoughts; distraction of attention to the symptom, with the dual purpose of arming with a way of rapid management of symptoms, but also to make her aware of the possibility of controlling (indirectly) the appearance of symptoms; breath control - by reducing anxiety; cognitive restructuring by modifying automatic thoughts and central beliefs; relaxation in order to reduce the states of excitability and chronic tension, which the patient experienced; assertive attachment, to improve social skills and facilitate emotional catharsis (decrease negative load.)

**DISCUSSION**

In meetings with the patient's parents, it was considered: to show gratification behavior, respectively to reduce the secondary benefits of the patient drifted from the existence of the status of anorexic patient (attention, which and unconditional support from the family combined with enraging social withdrawal).

The patient's parents were warned that the gratification of anxious behavior only leads to its amplification and they were asked to involve the patient as actively as possible, in various light and short-term chores and to seek new activities, to develop new skills and abilities, in order to increase the feeling of efficiency and responsibility which is very important in the harmonious development of adolescence.

*Acknowledgment*

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.9>

# THE DIFFICULT PATH TO SCHOOL — THE SCHOOLING OF PUPILS WITH SPECIAL EDUCATIONAL NEEDS DURING THE PANDEMIC

Received 25 August 2021;  
Received in revised form 15 September 2021;  
Accepted 20 September 2021

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**ABSTRACT** — Schooling at all levels from kindergarten to high school has suffered during the pandemic, as the school system has had to readjust to stimulate pupil's attention, rethinking teaching methods, maintaining a healthy climate of interaction between teacher and pupil, teacher and parents, but also between colleagues in the same group study. The management of these parameters becomes all the more delicate in the case of students with special educational needs during the pandemic. That is why the preliminary investigations must be thoroughly completed (thorough medical, psychiatric, psychological, pedagogical anamnesis, schooling in the family having a great role here, then rigorous clinical and paraclinical investigations followed only in the last stage of placing the child in a diagnostic class and then stating its requirements). There is a white-gray territory of students who do not have an accurate diagnosis but who still require more attention and special teaching methods. False mental retardation unfortunately still creeps among the diagnoses received by children in some situations, all the more difficult to make a differential diagnosis during the pandemic where communication of all kinds is affected. Modern combined pedagogical methods can be managed in combination for the message to reach the beneficiaries as clearly and comprehensively as possible and the impact on the pupil should be the expected one. The establishment of an interdisciplinary team allows the facilitation of this approach to make the path towards school (be it virtual) easier for all students to create a climate in which the pupil can complete himself to his maximum capacity.

**KEYWORDS** — school; special educational needs; inclusive education; false mental retardation.

## INTRODUCTION

The education of students with SEN in the type of pandemic is subject to a holistic vision, which integrates educational, social, medical, biological, anthropological, cultural and relational factors (Adăscăliței, 2020; Damian et al., 2017; Frumos, 2018; Stăncescu et al., 2020). First of all, defining these requirements becomes much more difficult during the pandemic, desomatization of the child, and then categorizing his needs must be done with great tact and caution, so as not to place the wrong child in groups that require him skills below the level of his possibilities and intellect (Burlea et al., 2010). Fundamental principles regarding the education and development of the child ALL children have the right to education. EVERY child can learn. Romania has signed international agreements in which it assumes the transformation of Romanian schools into inclusive schools.

## METHODS

We have developed an intervention model for children with special educational requirements during pandemics, identifying the needs but also the specifics of the possibility of approaching them.

### *The Models in Approaching Disability*

The problem of deficiency can be approached from the perspective of two models: the individual, of medical inspiration (which considers that the difficulties of people with disabilities are due to their biological and psychological inferiority) and the social, which emphasizes the maladapted social environment, being considered to be generator of difficulties people with disabilities. The dominant model was (and unfortunately continues to be) the individual one, which emphasizes the individual impairments or disabilities considered addictive. The individual model postulates that the problems faced by people with disabilities are nothing but the direct consequences of their specific deficiencies. The medical model projects a dualism that tends to state that "valid" people would be *better* or *superior* to those with disabilities. Thus, the image of the latter comes to be identified with mercy, fear and charity. The hypothesis is justified that it would be legitimate for others to do things for people with disabilities, rather than doing things with them. Table



1 summarizes the issue of false mental retardation often present in assessments of children with SEN (special educational needs).

Table 1. False mental retardation (source developed by the authors)

False mental retardation	Affective deprivation
	Neglect
	Insecure attachment
	Abuse
	Autism spectrum disorder
	The degree of delay can be overestimated
	The child may have a normal or above average intellect
	Delayed intervention
	Genetic and metabolic syndromes
	Endocrinopathies
	The educational limitation given by the disease
	Undiagnosis of the syndrome in time
	Medical malpractice
	Hearing and language disorders, learning disorders
	Dyslexia
	Delayed intervention

The person with mental retardation does not identify the source of internal or external activation of memory often confusing them. In these patients, however, the visual memory was better than the verbal one, the false recollections being much lower for images presented to the subjects. Another interesting fact is that these false verbal memories will increase with the age of the patients. Another important fact is that patients with learning difficulties have normal intellect. Memory is semantic and episodic. Episodic memory is impaired in children with autism. Carlin et al. (2008) redefines the identity of the teacher in relation to the pupil. Educational discourse suffers fractures during the pandemic, sometimes gaps and therefore knowledge accumulates in leaps and bounds.

**The authority of the teacher** is undermined by the academic community itself in which there are different currents of teaching, opinions and ideas about pedagogy and methods applied during the pandemic.

**Rules in schools:** There were philosophical, pedagogical and organizational inconsistencies that led to the re-establishment of habits, rules and objectives pursued in schools. (Blume, 2020; Teruya, 2021)

**Social model:** focuses on disability as a relationship between people with disabilities and discriminatory society: disability is defined as the result of disabling barriers imposed by the environment or policy interventions. It involves strategies to remove barriers, of education, aiming the inclusion (Lloyd, 2008). People with disabilities do not want anything extra, but want to be treated the same as people without disabilities. A large number of people have disabilities due to barriers or prejudices. The child with special educational needs requires additional attention and educational assistance (an individualized approach based on the particularities and / or characteristics of a learning disability / learning disorder), without which we cannot speak of

equal opportunities, access and school and social participation (Burlea et al., 2012). Inclusive policies and practices postulate the complex change of the environment (physical and social) to allow the child's development to its full potential (Egenfeldt-Nielsen, 2004). The establishment of special educational requirements is based on the learning barriers that the pupils encounters in the educational environment in particular (but also in the community) and which must be reduced / eliminated so that the child can progress at his own pace (Ainscow, 2016).

RESULTS

The education of children with SEN in pandemics can be achieved based on the following model developed by our team for inclusive education. The pandemic has created new barriers to learning for all students, but also for teachers and parents. At the same time, after the initial impact, there has been an adaptation effort that has changed and continues to change the educational environment, bringing positive things from the perspective of inclusion, for some children. At the same time, for disadvantaged students and families, there were added barriers and problems regarding the access to education.

DISCUSSION

We empathize with the helpless, the needy, the hopeless, the less fortunate than us. Are we aware of what happened beyond what we can comprehend? Every day many children cross the threshold of school, including a series of mental retardation, sensory or associated, all with special educational needs. Smiling or crying indifferently or ignorantly, they are all driven into the adventure of knowledge. Pre-pandemic education has been characterized by face-to-face activities that involve a physical environment dedicated to teaching, learning, assessment, educational therapy, specific therapies and compensation. Education during the pandemic has been



characterized by Synchronous / asynchronous activities that involve changing the environment of the educational service. Approaching intervention methods and techniques with an emphasis on the diversification of action agents. The development and implementation of educational frameworks, formal and non-formal, to integrate in their content new technologies or intervention methods. The digital solutions in adapting intervention methods and techniques for the category of action agents with independence manifests in participation; we aim at employing the self-directed learning, we train: skills, abilities and acquirements of work and life; we develop: new skills for education (knowing, doing, being, working together), we insist upon: the optimal functioning of the components of the mental system at the individual level, the quality of individual functionality in various contexts. Transposing the interaction with students in the virtual space; used communication channels: specialized e-learning platform, google classroom, specific means of distance learning, applications for asynchronous communication; ways of structuring the content of the activity: open educational resources with digital content (software slides, tutorials, etc.) (Luca et al., 2020). Interactive teaching material, worksheets with audio recording; power point presentations with audio-video recording. For the category of action agents with controlled independence in participation: we aim: capitalizing the individual educational potential; we develop: key competencies in personal and social evolution; For the category of action agents without controlled independence in participation we aim: the implementation of a multifocal intervention program (multimedia modules with extended addressability); we form adaptive work and life behaviors; we develop: positive personality traits reflected in the maximum capitalization of the psycho-physical potential; we insist upon the individual functionality as a reaction to controlled external elements. Human Diagnosis and prognosis: Physical support traditionally restricted, evaluation of procurement difficult to quantify, development of out-of-phase, artificial communication; personalized intervention directly proportional to the degree of skill and involvement of parents. Material order: Lack of devices, insufficient knowledge in the IT field, fluctuating or non-existent internet connection, increased maintenance costs.

In order to change behaviors and promote the integration of new concepts and values, it is imperative that students benefit from experiential learning through a socio-constructivist approach. Digital culture should not suppress the paradigms of the past, it is imperative that they coexist.

### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.10>

# THE RISE OF INTRA-FAMILY TENSIONS FOR CHILDREN DURING THE COVID-19 PANDEMIC

Received 25 August 2021;  
Received in revised form 20 September 2021;  
Accepted 22 September 2021

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**ABSTRACT** — The impact of the COVID-19 pandemic on family life is asymmetric. The effect of patients' illness has multiple and varied effects on all devices and systems. The mental impairment can occur through direct and / or indirect mechanisms. The premise of restricting activities, income, social contacts and extended family support puts families into difficulty, but these issues are not always correlated with income, social status or education of family members. These inaccuracies are increasingly common in families where there are fewer mechanisms to compensate for these losses felt by society as a whole. The need for acceptance, understanding, appreciation is greater than ever and the examples where each family member can evolve and validate are fewer and fewer. The family should be studied in dynamics in terms of relationships, exercise of tolerance and communication between members within the same family. Acceptance of reality is also very important, acceptance of existential problems in the family. We want to unravel the mechanisms that lead to the rise of intra-family tensions, especially in terms of disrupting the lives of minors who are part of the changing family and preventing the effects to provide the best opportunities for education and development of children. Due to the pre-extended restrictions imposed by the pandemic, permanent fatigue sets in, the emotional abandonment of family members, each member taking refuges in his own world (possibly even virtual) that offers them more freedom and sometimes power. It was also observed that if the family works in a smaller physical space, there may be elements of aggression, rejection, abuse even among family members, these elements can be prevented with appropriate programs.

**KEYWORDS** — intra-family tensions; interventions; pandemic; e-learning.

## INTRODUCTION

Both the parental couple may develop older dysfunctions that become more pronounced and the roles of other family members are disrupted. There are also happy situations in which families take advantage of these moments (difficult for all mankind) to

readjust, reset, and refresh (and reinvent) as is naturally effective for its members and for its proper functioning (Luca et al., 2020; Grigoras & Ciubara, 2021). The closure of schools has been taken as measure and other pandemics such as the flu pandemic, based on the idea that children are stronger vectors of transmission of infections from child to child, according to epidemiologists this measure could have reduced the peak of a pandemic by 40%. The measures are not effective if they are not doubled by a responsibility of each family by educating each individual to adhere to the idea of protecting themselves and others (Apostu, 2020; Assante & Candel, 2020; Loue & Lamb, 2020; Robu, 2017). On the other hand, school closure itself can generate other crises and can cause anxiety, disorientation, controversy, differences and distortions between different regions in the education process (Afolabi, 2018, pp. 59–96).

## METHODS

**Objectives:** We want to unfold the mechanisms that lead to the rise of intra-family tensions especially in terms of disrupting the lives of minors who are part of the changing family due to the COVID-19 pandemic.

A tension that occurs in all individuals in society is the opposition between good and personal needs to those of society as a whole, and the moral dilemma of individuals anchored in society get other nuances during the pandemic, these interests becoming more opposite and often almost incompatible, which leads to a higher tension both intra-psychically and between individuals (Afolabi, 2018, pp. 59–96).

Thus, the insecurity of difficult living conditions and/or insufficient food resources for the family poses the risk of shelling of any form but also of neglecting the child in their own family to grow. Tener et al. (2020). The child represents the hope that the family and a community place in the future. It has become a priority to protect the child during the pandemic (Spraker, 2012). A child can decompensate in adolescence from falling in love, excessive use of stimulants, overuse of insufficient rest with fragmentation of sleep and nights lost either by browsing social networks or internet games or parties between young people, experiencing strong sensations such as practicing dangerous sports or incorrect training (at the gym, track, bicycle) or due to severe organic decompensation of

severe diseases (tumors, leukemia, lymphoma that due to specific footprints age may be omitted) (Marchini, et al., 2020). An additional stressor can affect the child already vulnerable by the aforementioned factors. WHO proposes a family intervention that includes attitudes that need to be educated to cope with the pandemic, but also the courage to express fear of their own children, and the courage of the adolescent to express his fears, fears related to COVID-19) (Silva et al., 2020). Table 1 summarizes the causes and intervention in family tensions.

**Table 1.** *Causes and intervention in family tensions*

Causes	Family functioning	Interventions
Death of a family member	Reorganization of the family after death Hard-to-consume mourning	Family support by the extended family
A parent with a mental / somatic illness Pre-existing personality disorders of family members interacting in a pandemic	Costly treatment of a family member, exhaustion of other family members	Resumption of the family social survey, support through NGOs but also through outpatient services provided by the state Health education programs Telephone lines for crisis interventions to compensate a family member
Loss of a family member's job	Reorganization of the work schedule of a family member Financial losses Distrust Demotivating family members	Work Scholarship Online support programs Education for individual readjustment and mutual support in the family
Couple	Couple discussions Unadjusted now couple Anxiety about the future Competition between spouses The subconscious desire for revenge on a family member for the child's fault to be born Neglect Poor communication between family members	Coping strategies Couple therapy Psychiatric consultations as needed Collaboration with the police and social assistance in case of domestic violence
The social dimension of the family	Inadequate living space Substance use of a family member Isolation Feeling useless Little relatives Leaving by friends Renegotiating power relations in the family Achieving new poles of power both at work and within the family Elderly people who feel excluded from social life Using vices in the same family Changing routines and behavioral repertoire in family members Differences in the perception of reality by members of the same family Reduction of adolescents' contacts with those of their age	Social housing programs Limiting consumption or stopping it for the affected family member (alcoholics anonymously group therapies) Identifying as an employer the vulnerable risk groups during the pandemic and making the work schedule more flexible for the affected members where possible or supporting transportation to the workplace, long distance work (long distance to work, large family problems from which the employee comes)
Unforeseen life events	Stressful events related to life Anger repressed or manifested between siblings or a family member. Unforeseen life events (fire, accident, conflict, etc.)	
Resilience deficit	The need for approval and understanding Renegotiation of family roles Family members let it go	Acceptance Confidence in the future Generating new values The multilevel model of education in schools

According to (Calvano et al., 2021; Carlucci et al., 2020; Guessoum et al., 2020; Smiri et al., 2020)

## RESULTS

A reinforcement plan for children has been drafted.

1. Development of new artistic values, volunteering, capitalization of internal or family resources.
2. Development of methods specific to online education for children with special educational needs.
3. Anchoring children online to interact with the school and teachers.
4. Outdoor housekeeping activities for parents with children on the perimeter of their home.

5. The approach of grandparents to grandchildren during the period of isolation (and parents who are overwhelmed by worries may leave children in the care of grandparents and the food and work provider may go to work).
6. Plans to be concrete, setting deadlines for small family reunions, a fixed schedule, deadlines for small tasks and projects.
7. Reorganization of the sleeping space of family members so that differences in the schedule of different activities can lead to irritation, tensions.
8. Discussion of ethical issues regarding the pandemic with adolescents, making creative activities in schools (making posters, slogans).
9. Discussing the marital problems that occurred in the parents' couples due to the pandemic.

## CONCLUSION

The rise of intra-family tensions can be prevented by careful observation and guidance of the family as a whole and each member with his individuality, needs and projections. This helps to reduce psychiatric morbidity and psychological disorders and avoid severe somatic pathologies. Therefore, the medical body of the family is an end in itself to provide a better quality of life for children and their families in times of the pandemic.

### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.11>

# HOW THE COVID-19 PANDEMIC HAS CHANGED THE IMAGE OF PSYCHIATRY

Received 30 August 2021;  
Received in revised form 17 September 2021;  
Accepted 20 September 2021

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**ABSTRACT** — Coronavirus disease (Covid-19) has brought the world at a standstill with unprecedented confinement measures and lockdowns in order to contain the novel virus. Negative effects of the pandemic on mental health are the main focal point. Social isolation, loneliness and the uncertainty of day to day living put a strain on the individual's psyche, therefore psychiatric intervention is highly needed. Mental health care providers are the key to help preserve and reconstruct a post-pandemic society. **METHOD:** Existing literature on the Covid-19 outbreak pertinent to mental health was retrieved from the PubMed database using as a main focal point the role of the psychiatrist in managing the angst caused by the already mentioned stressful factor. In times of uncertainty and fear, mental health care remains the major pillar as it has been for numerous years, with implications worldwide.

**CONCLUSION:** There is a pressing need for developing healthy coping mechanisms during the current crisis and it is mandatory to acknowledge the role of the psychiatrist from an early stage in order to preserve a sense of stability for the individual.

**KEYWORDS** — Covid-19, psychiatry, coping mechanisms, negative effects.

## BACKGROUND

The medical definition of psychiatry is the specialty devoted to the diagnosis, prevention, and treatment of mental disorders, these including distorted mood, behavior, cognition and perceptions (Backes et al., 2013). As we browse throughout history, psychiatry has held an infamous spot due to the nature of its patients and the problems related to them, using the broad term of the institution as a punishing mechanism for raging individuals who were dangerous or a nuisance. The term *psychiatry* was first used in 1808 by Reil, a professor of medicine in Germany, to describe the evolving discipline. Psychiatrists were known as alienists (those who treated mental alienation) until the twentieth century. Mental illness or mental

disorder is a behavioral or mental pattern that causes a great deal of distress or impairment of personal functioning. Such features may be persistent, relapsing and remitting, or occur as a single episode such as an acute psychotic syndrome. Many disorders have been described, with signs and symptoms that have a wide range between other specific diseases. Only the mental health care professional can diagnose such disorders.

Psychiatry as a discipline is broad and varied, with treatments and therapy approach directly linked to society and culture. Psychiatry, in its early stages was used solely for people who had various diseases and were not fit to live with the rest of the population. Another postulate is related to the religious background in which is addressed the problem of evil spirits and possessions. The focal problem of madness was regarded as a result of the sins of patients or other spiritual powers. Such ideas about the cause of mental illness varied throughout history and treatment methods as well. Punishment was seen as a form of healing, skull trepanation curative for certain disease and sending away patients to asylums was a usual practice for nineteenth century psychiatrists. Nowadays, the evolution of humanity has also brought new perspectives for psychiatry. Pharmacological treatment and alternative therapies have a specific role in providing the patient with the best medical care, therefore insuring a next to normal lifestyle.

Infectious diseases have appeared at different times in history, in recent years, globalization has facilitated the spread of pathological agents, resulting in pandemics worldwide. Widespread outbreaks of infectious disease, such as COVID-19, are associated with psychological distress and symptoms of mental illness (Bao et al., 2020; Baroiu et al., 2021; Luca et al., 2020b).

Coronavirus (COVID-19), identified in China in late 2019, has been recognized by the World Health Organization (WHO) as a pandemic, with high contagion potential and widespread transmission, with a high impact on mental health. Anxiety related to COVID-19, fear for family members, instability at work, emotional discomfort secondary to restriction of social activity and an imposed quarantine program have affected all areas of living. The fear of infection decreased the addressability to medical health care, patients with chronic diseases arriving at hospital only by ambulance when they became medical emergencies.

Social isolation and the uncertainties around the virus may bring about depressive thoughts, despair, anxiety, and loneliness. Consequently, psychiatric symptoms in people without a history of mental illness may emerge and preexisting psychiatric conditions may worsen. Health anxiety, which arises from the misinterpretation of perceived bodily sensations and changes, can be protective in everyday life. However, during an outbreak of infectious disease, particularly in the presence of inaccurate or exaggerated information from the media, health anxiety can become excessive (Grigoras & Ciubara 2021; Luca et al., 2020a).

In what concerns psychiatry, people who are in need for mental assistance are divided in two separate groups: patients who were already registered with a psychiatric diagnosis before the pandemic, those diagnosed for the first time during the pandemic, but without symptoms explained directly by the impact of the pandemic and the segment of population which has developed a state of high anxiety and / or mood disturbance, secondary to the pandemic and restrictive measures. Often patients do not require psychotropic treatment but benefit from counseling and guidance.

Patients known to have mood disorders, anxiety and addictions are more susceptible to acute episodes during the pandemic (perceived as a major stressor) and are in need for pharmacological treatment and psychotherapy, while chronic syndromes appear to be less vulnerable to relapse in times of crisis. New cases of adaptation disorders are the focal point of the pandemic, having as central and life-changing stress factor — the pandemic itself and its consequences (isolation, unemployment, economic recessions, virtual socialization) (Ahmed et al., 2020; Radulescu et al., 2020).

## LITERATURE REVIEW

Research has consistently shown that the healthcare professions experience higher levels of work stress than the general population, even under normal circumstances and stress in doctors is associated with both physical and mental health problems (Imai et al., 2010). Also, research from previous epidemics / pandemics (such as the SARS outbreak from 2003, the MERS epidemic from 2012 or Ebola outbreaks in West Africa) shows that health care professionals, especially doctors can experience permanent psychological alterations which may be visible month after the outbreak. Healthcare professionals also have a higher likelihood of suicidality and work-related stress as a common factor in those who complete suicide. Many doctors are reluctant to seek help to their fellow psychiatrists due to perceived stigma and anticipated damage to future career prospects. The relationship between traumatic life events and suicide is well docu-

mented and trauma from disaster events can increase suicidal ideation in emergency workers (McFeeters et al., 2015). Experts in mental health have given psychiatry a new definition as the *second front line in the fight against the pandemic* once the pandemic reaches its end, when a possible increase in cases of post-traumatic stress disorder and anxiety is expected, both among the general population and clinicians. The psychiatrist is a person in the medical field with important roles for the general population, such as education of the public about the common psychological effects of a pandemic, motivating the public to adopt strategies for disease prevention and health promotion, integrating their services with available health care, teaching problem-solving strategies to cope with the current crisis, empowering patients with COVID-19 and their caregivers, and provision of mental health care to healthcare workers (Banerjee, 2020).

As the pandemic reached its highest point, psychiatrists had to adapt in order to limit one to one meeting, as a preventive measure, thus arose the need for online consultations. For this branch of medicine, technology and telemedicine have been a real advantage all for the benefit of the patient.

**Telemedicine** is defined as the use of telecommunication technology to provide medical services (diagnostic, treatment, testing, follow-up of the patient's progress after treatment, etc.), usually provided by doctors, and which facilitates access to a specialist who is not in the same location as the patient.

**Telehealth** is similar to telemedicine, but includes a broader field, in addition to the remote doctor-patient relationship. It includes the help of the social worker, the pharmacist, who educate the patient and the family, the social benefits, the adherence to treatment.

**Telecare** refers to technologies that help patients to be independent and safe in their homes. This field includes, for example, fitness applications, digital tools that connect the patient with their family, exercise-tracking tools or digital means that alert abnormalities in vital signs or remind the time when the patient is scheduled to take certain treatments. In addition, by simply accessing the computer, doctors are able to communicate almost as effectively with all patients and discovered new benefits of eliminating travel time to the office.

## CONCLUSION

In conclusion, the role of the psychiatrist in society has undergone important changes, thus becoming a pillar of support in the fight against the novel coronavirus pandemic. With the help of the technology, it was possible to maintain a state of quasi-normality in terms of therapeutic intervention.

### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.12>

# DEPRESSION AND NARCISSISTIC DISORDER — CASE REPORT AND CLINICAL CONSIDERATIONS

Received 20 August 2021;  
Received in revised form 10 September 2021;  
Accepted 14 September 2021

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**ABSTRACT** — The evolution of research in the field of psychotherapy is not definitive, but always flexible when new therapeutic and/or pharmacological procedures are established.

**AIM:** To show evidence for the importance of psychotherapy in the treatment of depression.

**CASE DESCRIPTION:** As a method of therapy that is used successfully, there is cognitive behavioural therapy (CBT). The reported case study confirms by the results obtained and the objectives achieved, that CBT prevents much better recurrences in psychiatric disorders.

**CONCLUSION:** Our case confirms that psychotherapy increases the quality of the patient's life in the fight against depression, modulation of one's own affect (narcissistic disorder), time management, development of communication and acceptance skills. It decreased anxiety and cardiovascular symptoms. The role of psychotherapy in the treatment of mental illness is beneficial and effective and facilitates compliance with antidepressant and anxiolytic treatment.

**KEYWORDS** — depression, anxiety, narcissistic disorder, psychotherapy, cognitive behavioural therapy.

## BACKGROUND

The presented model of conceptualization of the case study highlights the effectiveness of psychotherapy, cognitive behavioural therapy and Ericksonian therapy, in the treatment of depression (Radulescu et al., 2020, Dobri et al., 2020). The hypothesis we structured tells the idea that depressive syndrome can develop against the background of a narcissistic wound. Narcissistic disorder means a prejudice to the self and all its systems (Luca et al., 2020). In the case described it is about the inability of the psyche to adjust the level of self-respect and to keep it at a normal level, (Sperry, 2018). In depression one can always recognize a narcissistic vacuum, a disappearance, more or less complete, of living one's own value. A disorder in the field of narcissism is the essential nucleus of depression. So-called psychogenic depressions are at the root of narcissistic

conditioned depression (Ciubara et al., 2016). The self encompasses phenomena such as: feeling of one's own value, identity, feeling of personal power, the state of satisfaction of our needs (satisfaction-dissatisfaction), the feeling of having an integrated self, the relationship between oneself and people of relationship (represented by the object), persistent basic emotional states (e.g., resigned bitterness) (American Psychiatric Association, 2013; Lența & Cucu, 2017; Necula, 2020; Robu, 2017; Suci, 2019).

## CASE DESCRIPTION

At the guard room of the Psychiatric Hospital – Elisabeth Madame – Galati, a patient is presented, accusing dyspnoea, palpitations, panic attacks, accompanied by anxiety states.

Woman, 28 years old, married, higher education, not completed by a license exam, currently carries out her activity as a manicurist. The patient has no siblings, the parents are actually separated, but they maintain a toxic, possessive and dominant bond with a father who is also able to maintain his power and social influence in the community where he lives.

The patient's mother suffers from generalized anxiety, due to multiple conflicts with the patient's natural father, who currently has a restraining order and is under judicial control.

Patient I.D. manifests multiple somatizations and panic attacks, cosmetic surgery. She smokes, consumes coffee daily and occasionally alcohol.

The family context is a conflicted one, with negative parental roles and models, especially on the part of the father, who is a violent, influential man who uses violence to always demonstrate supremacy, both in the family of origin and the one that maintains it, and moreover is known as a figure of the underworld.

Current symptoms reappeared 3 months ago, with palpitations that lasted about 7 minutes and then spontaneously decreased in intensity. The episodes were repeated at 2–5 days, the difference, their intensity increased, the frequency did the same, and so their duration; these symptoms have been associated with: cold sweats, fatigue, pallor, lipotimia, loss of motor control and posture. From a food point of view, the patient has regular meals, keeps the diet for 15 years is very careful with what she eats, avoids fast food, ap-



preciates vegan diets and avoids eating in the evening. The only problem she can't control is the desire to eat sweets, when the anxiety state increases and when she is alone and feels fearful.

## PSYCHOLOGICAL EXAMINATION

### *Affective-emotional level:*

The patient manifests an egocentric, grandiose behavior and tends to feel entitled to this attitude, which she frequently adopts; is impulsive and anxious, is considered to be special and in human relationships is always dissatisfied and manages to maintain superficial relationships and seeks to manipulate situations and contexts, which benefits her. The patient shows negative affectivity towards herself, as a physical and aesthetic aspect. The self-accusations resulted in lip enlargement, numerous breast surgeries. However, she is still unsatisfied and wants to sculpt her whole body in order to look like a diva.

### *Cognitive level:*

The patient, I.D. is oriented spatially and temporally, without memory or attention disorders, with a demonstrative speech, slightly theatrical, with the desire to impress.

**QI= 95, Average Normal Intelligence (RAVEN Progressive Matrices)** (Raven et al., 1938)

As attitude she is insistent, slightly hypochondriac, inflexible, with a diffuse perception of one's own body, impulsive temperament and justice with rigid abstractions; condemns with ease the people in her life, who have made her suffer, manifest behavior is cognitive expansiveness and exaggeration.

**SCID V — Narcissistic Personality Disorder** (First & Williams, 2012)

**RORSCHACH TEST** — responses in large numbers of type C (primary color) and type CF (color form) (Gacono & Meloy, 1994)

**T.A.T. TEST:** The patient tends to avoid the essential characteristics of the boards and that is why her stories are lites of significant content (Murray, 1943)

### *Behavioural level:*

I.D. easily moves from a normal mood or euthymia to a dysphoricama mood, with trajectories triggered by an inadequate and intense anger and mania. At the other extreme there are feelings of deep inner vacuum, and general behavioral boredom, up to lethargy and postural immobilization. The patient states that she had months when the only effort she made was to go to the toilet. Regarding to food, the only food ingested was milk and water from time to time. Emotionally unstable and permanently irritable to everything she has experienced in childhood, physical abuse and family abandonment have produced

major changes in general conduct; mixed insomnia and dysfunctional thoughts and especially those of non-acceptance of body image and fear of sudden death, in sleep mental exhaustion.

### *Psychophysiological level:*

1. The feeling of imminent death
2. Feeling of a sly
3. Liptomy stars, nausea and vomiting
4. Palpitations and internal hyperventilation
5. Cold extremities
6. Tingling all over the body

### *Interpersonal Relationship Level:*

The patient requires excessive admiration, does not show empathy, envies or feels envied, always arrogant, truculent, full of vanity and knows how to exploit others.

Attachment style: fearful and dismissive.

Self-perception: "I am special and unique and entitled to extraordinary privileges, whether I have won them or not."

The patient, I.D., although emotionally vulnerable to negative evaluations and the reaction of others, can manage these moments, is very perceptive in relationships with others and uses her advantages to achieve her own goals.

**Psychodiagnosis: Anxiety disorder with panic attacks, depressive syndrome, binge eating disorder** (American Psychiatric Association, 2013)

**Treatment:** In order to improve the patient's quality of life and for psychotherapy to be able to have increased efficacy, it is recommended to maintain psychiatric treatment with antidepressants and anxiolytics.

**Psychotherapy:** Cognitive-Behavioural therapy is recommended for better management of depressive syndrome and anxious states.

Family advice to identify the patient support network.

Both forms of therapy have as objectives: awareness of the inner conflicts that led to the appearance of panic attacks (e.g. fear of death and fear of not being able to work what she likes- the aesthetics of nails.); all these states are specific to Psychobehavioral Type A.

— Mental relaxation therapy and mindfulness techniques aimed to decrease physical tension and improve cardiovascular symptoms.

## DISCUSSION

Throughout the therapeutic process, I.D. actively participated in modulating her own affect; learning



to manage time efficiently and to practice at the same time the ability to communicate and accept the notion of *forgiving* and to understand the people and the mistakes of those around them.

The results obtained as a result of the psychotherapy program, denote the effectiveness of cognitive behavioural therapy, an effectiveness comparable to that of medication, thus preventing the recurrence of mental problems (major depressive disorder and narcissistic disorder.)

### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.13>

# THE EFFECTS OF VIRTUAL WORLD CAPTIVITY DURING THE COVID-19 PANDEMIC

Received 30 August 2021;  
Received in revised form 17 September 2021;  
Accepted 20 September 2021

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**ABSTRACT** — In recent decades, access to digital technology has increased, and labor productivity has required the acquisition of digital knowledge, so that the same skills used to meet hedonic tendencies, have led to the initiation and amplification of harmful behaviors. The COVID-19 pandemic significantly disrupted normal activities globally, generating multiple challenges for people's physical and mental health. The adaptation to the new lifestyle, imposed by this pandemic, has increased the use of digital technology, which has led to the development of addictive behavior in some users.

The purpose of this work is to bring to the attention of specialists, how the effects of virtual addictions, during the pandemic, act on mental health and unexpectedly change the normal rhythm of life. This work is a synthesis of possible addictive behaviors and mental disorders triggered by the use of digital devices, classified according to: the field in which the addictive behavior is installed, predisposed age groups and the association with pre-existing mental disorders. Changing people's behavior, associated with other stressors, can lead to a multitude of ailments, ranging from mental disorders to changes in compliance in organic diseases. Consequently, addictive behaviors have different intensities, occupy variable durations, have a fluctuating mental consumption. They generate a gradual social dysfunction, to which pre-existing mental suffering is added, and people involved develop disorders requiring the intervention of a specialist in the field of mental health.

**KEYWORDS** — virtual addictions, pandemic, coronavirus, mental health, psychiatry.

## INTRODUCTION

The industrial internet is considered by our society, the fourth structural revolution, which changes the behavior of society and work. In recent decades, access to digital technology has increased, and labor productivity has required the acquisition of digital knowledge, so that the same skills used to meet hedonic tendencies have led to the initiation, strengthening and amplification of harmful behaviors (Boşintă et al., 2018; Molchanova et al., 2020; Simion, 2021; Şteţ, 2021).

The COVID-19 pandemic significantly disrupted normal activities globally, creating multiple challenges,

both for people's physical health and mental health. (Ali & Bhati, 2020; Luca et al., 2020a, Grigoras & Ciubara, 2021) The adaptation to the new lifestyle, imposed by this pandemic, has increased the use of digital technology, which has led to the development of addictive behavior in some users.

## METHODS

### Objective

The purpose of this paper is to bring to the attention of specialists, the effects of virtual addictions, during the pandemic, on mental health, by unexpectedly changing the normal rhythm of life.

The paper is a synthesis of possible addictive behaviors and mental disorders triggered by the use of digital devices, classified according to:

### 1. association with pre-existing mental disorders

- depressive spectrum disorders
- anxiety spectrum disorders
- adaptation disorder
- personality disorder
- disorders related to the consumption of psychoactive substances

### 2. types of addictions

- social media addiction
- online shopping addiction
- online stock exchange transactions
- online dating and relationship addiction
- information searched excessively on several sites
- addiction to watching movies and series in the marathon: excessive viewing phenomenon (Starosta & Izydorczyk, 2020)
- addiction to internet pornography
- video games on computer or smartphone
- addiction to internet gambling, also called 'invisible disease' (Gainsbury, 2015)

In the DSM-5 there is also a disorder proposed for further studies called internet gambling disorder, a condition that refers to people who continuously use the internet to play games, insofar as it interferes with social relationships and performance in the workplace (American Psychiatric Association, 2013). Not be confused with social gambling, which occurs on special occasions, with friends, and with predeter-

mined acceptable and tolerable losses (Boland et al., 2021).

More than a year ago, about 3 billion people around the world were forced to stay home, and more than 130 countries have ordered a certain level of restrictions to restrict movement in order to prevent the spread of human infections with the new coronavirus. (Ali & Bhati, 2020; Baroiu et al., 2021)

Also, quarantine and isolation at home, telework or work from home, online school, have significantly increased the use of digital technology.

In the context of the conditions imposed by the pandemic, people, being social beings, have adopted methods to adapt to unpredictable changes:

Some people have satisfied their need to communicate, to relate, through virtual socialization, using the multitude of applications created for this purpose. Depending on the emotional needs of people, virtual socialization has taken forms that can be taken to the extreme, by long duration (hours), by the large number of participants (online conferences, with a very large number of participants) (Luca et al., 2020b).

Some users have adopted virtual socialization as a method of anonymity, which allows them to express their feelings, without always enduring the consequences (trolling, adopting false identities) (Radulescu et al., 2020). The association between anonymity, convenience and escape, promotes the Internet as an object of psychopathology.

Some people have adapted by completely denying reality and expressing it in the virtual environment, thus supporting conspiracy theories, denying the actual existence of the virus, stating that the appearance of this infection has a terrorist purpose, denigrating the medical system, etc.) (Douglas, 2021). Unfortunately, society is also made up of these individuals, who with access to the virtual world, can confirm each other's defense mechanism, can coagulate into groups that mutually enhance their ideas and, through this amplification, end up canceling logical thinking.

Some users have met certain needs, through regression to childhood and refuge in the virtual world. Regression in the childhood world involves reliving the feeling of childhood and the need for protection, by an adult, associated with the flight from responsibilities, depending on the tendencies of dependent personality or associated anxieties (Luca et al., 2020c). These people either became completely isolated or relived childhood-specific activities. When a person begins to take refuge in the virtual world, he will gradually spend more time watching movies, playing online games, socializing with others, shopping online, scrolling through social networks, until these activities take place. obsessive, then compulsive.

### *Symptoms of internet addiction*

It is well known that *internet addiction disorder* is not listed in the mental health official handbooks, like the Classification of Mental and Behavioural Disorders ICD-10 (World Health Organization, 1992) or the Diagnostic and Statistical Manual of Mental Disorders DSM-5, but it has been formally recognized as a disorder by the American Psychological Association (Shaw & Black, 2008).

"Although Internet Addiction can be found on 28 million websites, the APA chose not to include it in DSM-5 in 2014, focusing on content rather than the technology used to convey it." (Sadock et al., 2017)

Individuals with internet addiction suffer both physical and mental consequences:

#### **1. Psychological symptoms:**

- guilt
- anxiety
- depression
- aggressivity
- procrastination
- mood swings
- defensive attitude
- social (physical) isolation
- feeling of loneliness
- the tendency to avoid work
- loss of the notion of time
- state of psychomotor agitation
- loss of patience for repetitive activities
- hedonic feelings of satisfaction, euphoria, while using the internet
- inability to prioritize activities or follow a well-established schedule

#### **2. Somatic symptoms:**

- headache
- insomnia
- malnutrition
- weight fluctuations
- poor personal hygiene
- carpal tunnel syndrome
- pain in any area of the body
- sleep-wake disorders
- eye diseases (dryness, hyperemia)
- spine pain (cervical and lombar)

### *Related disorders*

- online gambling addiction
- online gaming addiction
- internet-communication disorder (compulsive talking with other people) (Wegmann & Brand, 2016)
- virtual reality addiction
- video streaming addiction

## DISCUSSION

Changing the behavior of people associated with other stressful psychological factors (fear of death, anxiety, unpredictability of the future), can generate a range of conditions ranging from mental disorders to changes in compliance with organic diseases.

"Any form of addiction is bad, whether the narcotic is alcohol, morphine or idealism." (Jung, 1962). In other words, it is essential for our health, physical and mental, to stay as far away from harmful behaviors that can become diseases that affect our lives.

Consequently, addictive behaviors have different intensities, occupy variable durations, have a fluctuating mental consumption, and generate a gradual social dysfunction, to which are added pre-existing mental suffering, and some of the people involved develop disorders, which involve the intervention of a specialist in the field of mental health.

As in any other aspect of life, whether we are talking about food, rest or professional life, when it comes to time spent in the online environment, we need balance and moderation.

### Acknowledgment

This research was presented at 5th European Conference of Psychiatry and Mental Health "Galatia" 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.14>

# SHOPPING ADDICTION — A REAL CHALLENGE DURING THE PANDEMIC

Received 30 August 2021;  
Received in revised form 18 September 2021;  
Accepted 20 September 2021

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**ABSTRACT** — We live in a modern society, which imposes an alert pace of daily life for all of us. As a result, there are constant attempts to find ways for people to access any service as quickly as possible. The COVID-19 pandemic has made drastic changes in human behaviour, lifestyle and the reality people live in. There is a concern that people are living in times of multiple existential, economic and instability threats due to drastic changes in daily life. Also known as Oniomania, the habit of compulsive shopping has come to the attention of the medical world. Studies show that the habit of buying excessively has become a concern in today's society, being similar to other well-known compulsive or addictive disorders, such as substance abuse, gambling addiction, or eating disorders. Online shopping offers multiple benefits, therefore there has been an increase in using online shopping, especially during the COVID-19 pandemic, as people had no other option than to stay at home and use the Internet for various purposes.

**METHOD:** The review of the literature draws on searches within databases including Pubmed, Science Direct, Elsevier, EBSCO, Medline.

**CONCLUSION:** Health crises, such as epidemics and pandemics, can be a key factor in compulsive shopping. There are seven variables which are thought to influence the possible development of online shopping addiction: low self-esteem, low self-regulation; negative emotion, enjoyment, gender, social anonymity and cognitive overload.

**KEYWORDS** — online shopping, shopping addiction, compulsive shopping, pandemic.

## INTRODUCTION

Internet has become an important resource for people all around the world, as it has improved almost every aspect of everyday life. When it comes to shopping, the development of online environment, the use of credit cards, along with various media campaigns have made shopping much more efficient and accessible (Luca, Burlea et al 2020).

However, if used excessively, Internet can have a negative impact on individuals and can affect them in many ways, especially from a psychological point of

view (Diaconu, 2019; Jousselein, 2021; Lefter, 2018; Sandu & Nistor, 2020).

COVID-19 pandemic is a global public health emergency. People from all over the world confronted with several challenges related to mental health, such as panic attacks, phobias, anxiety, sleep disorders or dissociative symptoms (Luca, Baroiu et al, 2020; Luca, Ciubara et al, 2020, Baroiu et al, 2021). Moreover, addictive behaviour worsened during this period of crisis, especially among people with preexistent mental health conditions (Rocco et al., 2021; Sujita et al., 2020).

Although it is not officially described in Diagnostic and Statistical Manual of Mental Disorders (DSM-5), it is thought that oniomania or the unstoppable impulse to buy, gathers patterns not only from obsessive-compulsive disorders but also elements from impulse control disorder. Faber and O' Guinn tried to define it as "a type of consumer behaviour which is inappropriate, typically excessive, and clearly disruptive to the life of individuals who appear impulsively driven to consume" (Bighiu et al., 2015).

However, it is a chronic repetitive behaviour which interferes with the wellbeing of the individual. Studies have shown that this behaviour is frequently associated with depression, anxiety, substance abuse or weak impulse control. It is not very common in the general population, but it seems to be a place or increase in insecurity, being an important variable in the context of the COVID-19 pandemic because of the significant increase in fear and anxiety (Liese & Monley, 2021; Rick et al., 2014).

## METHODS

The present paper is the result of the investigation and critical interpretation of numerous studies and reports, documents elaborated on a national and international level regarding the topic under research. The literature that was used is included in the bibliography. The titles and abstracts were evaluated thoroughly in order to determine whether they meet the necessary criteria and information. Additional findings were obtained through manual search and cross referencing. By this method the authors identified the nature of existing research in the field, epistemological assumptions and methodological approaches. This classification provided a framework through which to analyse the literature.

Specialists in social psychology have published preliminary conclusions on the change human behavior during the pandemic. When it comes to COVID-19 pandemic, first of all people confronted with the feeling of uncertainty, a state that comes with others many feelings such as: isolation, anxiety, sadness, which represent normal reactions to the abnormal conditions people needed to adapt (Grigoras & Ciubara, 2021).

During the coronavirus outbreak (COVID-19), quarantine was used as a health strategy to reduce the transmission of the disease. Quarantine efforts ranged from quarantine to mass of large cities, to isolation in facilities provided by the state, to self-isolation at home. Even if quarantine generally serves the public good, it is also associated with psychological challenges (Mueller et al., 2007; Neaga, 2020).

The purchase of goods is rather impulsive than necessary, which leads to a elevated state. Then comes the guilt and the diminution of the positive state when one realises the impact on the financial situation. Then comes the anticipation, manifested by a strong need to shop and finally the preparation for action is made. Then the cycle restarts. People who have this condition say that there is often an uncomfortable tension that is alleviated by the act of shopping. Despite this temporary relaxation, the majority of them feel disappointed due to their lack of self-control (Lejoyeux & Weinstein, 2010).

#### BOX 2 The four stages of compulsive buying

- 1 Anticipation: individuals feel an urge to shop
- 2 Preparation: they start to prepare for shopping and spending, e.g. deciding where to go, what to wear and which credit cards to use
- 3 Shopping: the most important phase – individuals experience either a temporary relief or a great sense of excitement or even sexual feeling
- 4 Spending: soon after buying the item, they start to feel frustrated with their actions

(Black 2007a)

Source: Cambridge University Press (Vijaya et al., 2012)

## RESULTS

There are seven predictor elements that are thought to influence the possible development of online shopping addiction, and they are as listed:

- low self-esteem is relieved by the reward or outcome
- low self-regulation
- negative emotion- a person in a negative emotional state is more likely to shop impulsively and excessively, as engaging in this type of activity is recognised to ease anxiety and stress.
- enjoyment- shopping leads to positive feelings and excitement (frequently people describe it as “a high” or “a rush”) are associated with compulsive buying.
- gender-women usually do the most of household shopping, therefore they are more prone to develop this kind of addiction.
- social anonymity- online shopping allows individuals to keep their behaviour private.
- cognitive overload- cognitive stimulation by the online websites increases cognitive load, which leads to a lack of self-control (Rose & Dhandayudham, 2014).

## DISCUSSION

Internal and external triggers associated with the pandemic (e.g., fear of COVID-19) may increase compulsive shopping. However, it can have negative economic and psychological consequences, such as financial problems and negative effects, including guilt, remorse and anxiety. Moreover, compulsive shoppers are more likely to engage in this activity privately, thus increasing the tendency for social isolation.

In conclusion, compulsive shopping is an unhealthy habit that affects the lives of those. This condition goes beyond simple consumerism and is psychological. Some of the symptoms of compulsion include a shopping obsession, anxiety when not buying, a constant need to shop, and the purchase of unnecessary products.

### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health “Galatia” 2021

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.15>

# FROM MARIJUANA TO INTERNET AND VIDEO GAMING ADICTION- A CASE REPORT

Received 30 August 2021;  
Received in revised form 18 September 2021;  
Accepted 21 September 2021

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**ABSTRACT** — Marijuana is the most widely used psychoactive substance after coffee and it is used for both medical and recreational purposes. It has been known since ancient times and it seems to have been part of the mixture that was put in the pipe of "peace" by Native Americans. Marijuana is psychically addictive, but in its case, there is no physical addiction as in the case of high-risk drugs (heroin) and over 70% of consumers do not recognize marijuana addiction. This substance can induce an acute psychotic episode and the onset of schizophrenia. Usually, the patient's family is the one who asks for help in their case. We chose to present the clinical case of a patient, initially, marijuana addicted, who, after stopping it, developed an internet gaming disorder addiction. The digital environment is constantly evolving, growing exponentially at a considerable rate and online networks mean creating connections between people, minds and memories, regardless of their location in space and time. Many of us have different passions but there are also people who take these passions to the extreme as is the case with our patient who has developed an addiction to video games. Thus, we can conclude that one addiction can be replaced by another one in a very short time.

**KEYWORDS** — marijuana, video game addiction, internet gaming disorder, depression, anxiety .

## INTRODUCTION

Since 2013, the American Psychiatric Association has decided that addictions should be divided into 2 subgroups: substance addictions and non-substance addictions such as gambling and excessive internet use, exercise, work or excessive sex. Even if those in the second category are not finalized as a diagnosis of mental disorder, there are many similarities between the two categories such as: in both can be found withdrawal symptoms when not playing/ consuming the addictive substance, tolerance, unsuccessful attempts to reduce or stop playing/ using the

substance, gives up other activities to play/ use the addictive substance, continues playing/ using despite problems caused by it (American Psychiatric Association, 2013; Petry et al., 2015).

Psychiatric symptoms that are associated with internet gaming disorder are depression, anxiety, social isolation and, also, there are studies that agree that persons with internet and gaming addiction had higher rates of depressive symptoms than those without any addictions (Van Rooij et al., 2010; Mentzoni et al., 2011; Van Rooij et al., 2014).

The patients that are socially isolated and have poor interpersonal skills (Cășvean, 2021; Clero, 2018; Pavlovici, 2021; Sandu & Nistor, 2020) are mostly attracted to games that particularly allow them to develop easy online relationships and take on a multitude of new personalities (Radulescu et al., 2020). Low sociability and social competence seem to be correlated with gaming problems (Festl et al., 2013; Lemmens et al., 2009; Rehbein et al., 2010).

## CASE DESCRIPTION

We will present the case of the patient D.A., a 23 years old male who was brought to the hospital, by his family, for: apathy, increased anxiety, insomnia, delusional follow-up ideas. It should be mentioned that in the patient's family there are no chronic or mental illnesses, and from his personal history we remember: appendectomy at 15 years, psychiatric history (first hospitalization 2 months ago with acute psychotic episode) and there is also no history of chronic, infectious or mental illness. The patient lived alone in the city, have been studying informatics and had a stable job at a multinational (tester position for games), but without a stable romantic relationship being addicted to marijuana since he was 19 years old, an addiction that he did not ever take it seriously.

History of the disease: a 23-year-old patient, having a psychiatric hospitalization so far, who lives in the city, is examined in emergency room for apathy, increased anxiety, insomnia and delusional follow-up ideas, symptoms that started about 3 months ago and exacerbated in the last month prior to the consultation due to therapeutic abandonment and resumption of marijuana use.

From a clinical and paraclinical point of view, there are no pathological changes.



Examination of mental state at the time of examination: the patient has a slightly sad mood, he seems apathetic, anxious, with street clothes and maintained hygiene. From a cognitive point of view, bradypsychia and bradylalia are noticeable and the ideas of grandeur predominates "I have an IQ of 160, you don't even know who you're talking to". At the time of examination, he denies suicidal thoughts, but states that "I thought what I would be like to be dead and have an astral projection". He also presented mixed insomnia, decreased appetite, decreased useful yield (currently sick leave), insight on absent disease "I'm not sick, I just have a bad time".

Psychological examination: after applying the semi-structured interview (SCID), the psychological examination reveals borderline personality disorder (15/15 elements) and antisocial personality disorder (10/15 elements) with IQ=109/180–200. The structure obtained, for the changes noticed after completing the SCID, summarizes a criminal, aggressive, impulsive and irresponsible behavior.

Positive diagnosis: acute psychotic episode based on lack of insight, presence of delusional ideas, disorganized thinking, behavioral disorders, marijuana use and therapeutic abandonment.

The first treatment instituted in the hospital was suspended by the patient without any medical indication ("I didn't need that treatment, they made me sick and I can't stay in this state of mind").

The administration of the treatment is resumed with the patient's consent "I take it, but with one condition, don't make me a vegetable because I won't take it again".

He was administered: Trazodonum 150 mg, Risperidonum solution 4 ml / day (previously had 8 ml/day), Tryhexiphenidilum 2 mg and Modafinilum 100 mg.

The patient returns to the consultation in the first 3 months, every 2 weeks (consultations are scheduled in advance by his mother). The evolution is quickly favorable, marijuana use has stopped ("these drugs you give me make me feel like when I take marijuana and I'm not flattened"), has a difficult social reintegration, but returns to work (game tester) for the second month of treatment. 7 months after the first consultation, he returns urgently for work addiction, in fact it is about internet gaming and video addiction, gaming addiction replacing marijuana addiction. With the "internet and gaming addiction" the nictemeral rhythm has changed, it shows weight loss ("I work hard, I'm a performer, I don't have time for your meals") although there is a well-specified work schedule. The idea of grandeur is present and exacerbated ("I create, I open hearts and minds"). He gives up without the doctor's

advice to drug treatment and refuses hospitalization and help, but promises to continue at home with Risperidonum 4 ml/day, while also trying psychotherapy.

The prognosis and the evolution of the case are unfavorable, the patient being male with personality disorder, vicious type, having insight of the disease absent and therapeutic abandonment.

## DISCUSSION

There is little data about internet gaming disorder or video gaming and substance use (Sussman et al., 2011). There are some studies that found no differences between those with internet gaming disorder and those without this pathology in terms of alcohol use, but there might be a strong connection between the first and the use of illicit drugs such as marijuana (Luca et al., 2020a; Porter et al., 2010), fact also demonstrated in our presentation. There are studies that emphasize the connection between internet gaming disorder and cigarettes smoking, drinking and marijuana or illicit drugs' usage (Desai et al., 2010; Luca et al., 2020b; Van Rooij et al., 2014;) but there were also some researches that could not find any association between alcohol and tobacco use and gaming but there were stated a relationship between marijuana addiction and gaming addiction (Walther et al., 2012).

Our case report is to evaluate the associations between personality characteristics such as impulsivity and lower social competence, marijuana use and internet game playing and it resulted that all of these are connected by impulsivity as a common feature. Impulsivity is a core aspect of substance use disorders, and it may play a role in the development and/or maintenance of the internet gaming disorder as well (Gentile et al., 2011; Petry et al., 2015). Also, in our case, Treatment acceptance and subsequently treatment adherence may depend of our patient's response while doing psychotherapy. It is considered that psychotherapy and the use of motivational interview can change a patient's perspective about medical treatment, accepting it easier and for a longer period of time (Curis et al., 2018; Valcea et al, 2016).

Maintenance of internet gaming disorder was associated with having lower grades in school, reporting poorer relationships with parents, and developing worsening of depression, anxiety, and social phobia symptoms over time, facts confirmed in our presentation (Gentile et al., 2011).

The case presented by the present can be considered a starting point for the evaluation, diagnosis and treatment of patients who initially have substance addiction, and after a period of time, do not return to their consumption, but develop non-substance addictions as on the present case, video game addiction that



can also generate internet gaming addiction as well as vice versa thus being able to conclude that is a vicious circle: marijuana usage (substance addiction) – lower social competence (poor relationship with family and friends) – internet gaming and video disorder.

#### *Conflict of interest disclosure*

There are no known conflicts of interest in the publication of this article. The manuscript was read and approved by all authors.

#### *Compliance with ethical standards*

Any aspect of the work covered in this manuscript has been conducted with the ethical approval of all relevant bodies and that such approvals are acknowledged within the manuscript.

#### *Author contributions*

All authors have contributed equally to this paper.

#### *Acknowledgment*

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health “Galatia” 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.16>

# PREVENTION OF PSYCHOACTIVE SUBSTANCE USE

Received 20 August 2021;  
Received in revised form 14 September 2021;  
Accepted 16 September 2021

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**ABSTRACT** — Substance use disorder in a severe mode is called addiction, it is a chronic disorder of the brain determined by biological and social factors that have unhealthy consequences to individuals and to community. Understanding substance use disorder has improved our perspectives in the last thirty years due to major advancement in researches related to genetics and neuroscience. In addition to the evolution of new technologies and methods that helped us create advanced prevention techniques and interventions.

**METHODS:** PubMed was used to conduct the literature searches, observational and interventional studies focused on adult substance use were obtained. Findings were collected and arranged to cover the main points of epidemiology, neurobiology and prevention.

**RESULTS:** substance-related use patterns have evolved over time, which are informed via peer behaviors, environmental factors, messaging platforms, availability of various substances, and other different variables. Many risk factors in addition to resiliency factors contributed to individual differences in substance use and related results. Prevention methods have achieved mixed results, although many evidence-based treatments were developed for substance use disorder, the results are limited to a moderate level, suggesting the need for additional research to evolve prevention methods and treatment.

**CONCLUSION:** It is necessary to mention that there is a high demand to identify cost effective prevention methods. The integration of prevention methods and techniques, including interventions at the school, family and society levels, is more likely to achieve the results needed.

**KEYWORDS** — substances, abuse, prevention, dependence.

## INTRODUCTION

Psychoactive drugs are the foremost utilized psychotropic substances all over the world. The word "psychostimulant" can be characterized as a psychotropic substance that's able to stimulate the central nervous system (Rădulescu et al., 2020). It causes exci-

tation and elevated mood, in expansion to expanded alertness and excitement. Its major impact is to speed up signals into the brain. In other words, it can be characterized as a substance other than a depressant or a hallucinogenic substance (Favrod-Coune & Broers, 2010).

### *Genetic epidemiology of drug use disorders*

Several studies have demonstrated that substance use disorders are particularly related to genetics. This finding focuses to the important role of developmental and environmental factors in determining who is exposed to those substances or at risk of initiating illegal drug use, as well as genetic factors that contribute to determining an individual's continued risk of developing a substance use disorder (Schulden et al., 2012).

### *Etiology and types of psychostimulants*

#### **1. The Etiology of Substance Disorders**

The triggers of substance use disorders include both genetic and environmental factors. These occur along a continuum starting from the macro level which consists of broad social influences, to the micro level, which consists of influences at the molecular level. These are often seen as external to internal levels. Macro factors, including societal availability and desirability of materials, geographic and temporal differences, pricing, laws, and advertising. Mid-level factors include religiosity and parent and peer social influences. Moving increasingly towards the micro and intrinsic levels, taking into account cognitive and personality variables, subjective responses to substances, specific risks as well as protective genes (Hasin & Keyes, 2010).

#### **2. Types of psychostimulants**

Humans have used naturally occurring psychological stimuli for many decades. They include: cocaine (coca leaf), betel (areca nut), ephedra and khat.

In addition to psychostimulants of plant origin, there are many synthetic products, such as amphetamine-type stimulants and their derivatives (Latt et al., 2009).

### *Vulnerability to substance use disorders*

As with most other chronic diseases, 40% to 70% of a person's risk of developing a substance use disorder is genetic, but many environmental factors interact with a person's genes to modify their risk.

On a personal level, major risk factors include a family history of substance abuse or mental disorder, low school participation, a current mental health problem, a history of abuse and neglect, family conflicts and violence.

Some important personal protective factors conflict with: participation in school, development of good coping skills, participation in healthy recreational/social activities.

Prevention science concludes that there are three main points of vulnerability. First, no individual personal or environmental factor can determine whether an individual will develop a substance use disorder or problem. Second, most risk and protective factors can be modified through preventive programs and policies to reduce vulnerability. Finally, although substance use problems and disorders can present in any age group, the greatest risk was greatest in adolescents and young adults.

Regarding substance use disorders, research now indicates that more than 85% of those who meet the criteria for a substance use disorder at some time in their lives do so during adolescence. In other words, young adults who transition into their teenage years without meeting the criteria for a substance use disorder are not likely to develop them at all (McLellan, 2017).

#### *Substance Use Prevention in primary health care settings:*

A screening test for alcohol, smoking, and psychoactive substances (ASSIST) was developed under the auspices of the World Health Organization in response to the enormous global public health burden associated with psychoactive drugs. ASSIST was created for use in primary health care settings, where harmful drug use among visitors may not be detected. The package includes an 8-item questionnaire created to be administered by a primary health care worker to the visitor. It was created for use in the screening of the following substances: tobacco products; amphetamine-type stimulants; hemp; alcohol; cocaine; hallucinogens; inhalants; sedatives, including benzodiazepines; opioids; other medicines.

ASSIST specifies a risk score for each substance, which is used to initiate a discussion with primary care visitors about their use of these substances. This score falls into the *low*, *moderate* or *high* risk category which identifies the intervention most appropriate for this level of use (ie *no treatment*, *brief intervention*, or *referral for specialist assessment and treatment* respectively).

Finally, these questions provide an indication of the extent of the risks that can be associated with the abuse of a PHC visitor substance, and whether use is risky and likely to cause harm, now or in the near future, if use continues (Renstrom et al., 2017).

## METHODS

PubMed was used to conduct the literature searches, observational and interventional studies focused on adult substance use were obtained. Findings were collected and arranged to cover the main points of epidemiology, neurobiology and prevention

## RESULTS

### *Prevention programs*

#### **1. Universal Prevention Interventions**

Comprehensive interventions seek to reduce specific health problems across all people in a given population by reducing a variety of risk factors and providing a broad range of protective factors. Examples of universal interventions include policies; such as limiting the availability of substances in the community and setting a minimum drinking age; In addition to providing school programs that enhance social and emotional competencies to reduce stressful events students face, express their feelings appropriately, and develop resilience abilities related to negative social influences.

#### **2. Selective Interventions**

Selective interventions are made for specific communities, families or children who, because of their higher exposure to risk factors, are at increased risk of developing substance abuse problems. The target audience for selective interventions may include children with difficulties with social skills, children of depressed or drug-abusing parents, or families living in poverty.

Selective programs are more efficient because they can focus efforts and resources on those who are most likely to develop behavioral health problems.

#### **3. Indicated Interventions**

The indicated preventive interventions are conducted directly for those who already engage in risky behavior, such as drug use, or who have begun to experience problems, but have not yet developed a substance use disorder. Such programs are often intensive and costly but may still be cost-effective, given the high probability of costly disruption or other costly negative outcomes in the future (Surgeon General, 2016).

Effective prevention programs in each of these categories address the protective factors and risk factors associated with drug use. At different stages of development, young people are exposed to different combinations of protective factors and risk factors, and these effects can be altered by the presence of preventive interventions. For example, it has been found that children and adolescents who have been exposed to positive youth development programs are less likely to use tobacco, alcohol and other harmful substances (Thombs & Osborn, 2019).

In summary, the level of progress in behavioral treatment for substance abuse in recent years has exceeded the expectations of many researchers and practitioners. Effective behavioral therapies exist, and patients can be treated with a combination of behavioral and drug therapies that are more effective than either type of therapy alone. More work can be done to improve effect sizes in research on behavioral therapies and to develop strategies to assist substance users who do not respond to current treatments (Carroll & Onken, 2005).

## CONCLUSION

The insistence on program evaluation succeeded in identifying cost-effective prevention methods. Integration of prevention methods and techniques, including interventions at the school, family and community level, is more likely to achieve desired goals.

While amphetamine-type stimulants remain a concern in many areas, other substances will undoubtedly appear in the coming years. Thus, when addressing ATS-specific concerns, it is important to build a protective infrastructure for all substances. If this infrastructure is not currently in place in an area or community, a comprehensive and sustainable approach to addressing the use of amphetamine-type stimulants, despite its effectiveness in preventing or delaying the use of amphetamine-type stimulants, would be a step towards building capacity for substance use prevention (United Nations Office on Drugs, 2007). When this happens, the benefits to individuals, families, and communities will be noticeable.

## Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health “Galatia” 2021.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.17>

# SUBJECTIVE AND OBJECTIVE CHARACTERISTICS OF PHYSICAL ACTIVITY IN OLDER ADULTS

Received 6 August 2021;  
Received in revised form 15 September 2021;  
Accepted 20 September 2021

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**ABSTRACT** — Physical activity is often considered as an essential component of a healthy lifestyle and is required to be studied in detail. It is especially important to study this issue in reference to the population of older age groups. The aim of the research was to analyse subjective and objective characteristics of physical activity in population of older age groups.

Methods of sociological survey, parametric and nonparametric statistics were used in the work. Data on the characteristics of physical activity were obtained on the basis of a study of 1,045 subjects of both genders aged 60 years and older. The participants of the survey did not have any kinds of disability and were not engaged in any sport activities.

According to the results of the study, the age of the men and women was the determinant of assessing a level of physical activity. The average level of physical activity prevailed in men aged 60–74 years. Low levels of physical activity prevailed in men aged 75 years and older. Women had mostly low levels of physical activity.

Comparison of subjective and objective characteristics of physical activity showed a significant overestimation of subjective characteristics of high levels of physical activity and underestimation of the prevalence of low levels of physical activity in both men and women. As a result of gender comparisons, it was revealed that men aged 60–74 years overestimated their level of physical activity by a fourfold, while women were more objective assessing their level of physical activity.

**KEYWORDS** — public health, population of older age groups, physical activity.

## INTRODUCTION

Human health is formed under the influence of a large number of factors and determinants [1, 2, 3, 4]. Human movement is not limited to his kinetic functions, but it is a fundamental part of everyday life and is the focus of public health guidelines on physical activity. Steps can be accumulated throughout the day while doing housework, fulfilling professional requirements, taking care of children, performing assignments and transportation. Walking and exercise are the most common free time activities. Exercise and sports can also be considered as ways to increase the number of steps per day, but they are not easy to track with pedometers. And taking into consideration the fact that a certain part of the population is not engaged in any sport activities, pedometers may be considered as the most effective tools for assessing physical activity. Using pedometers in behavioural modification programs allows evaluating physical activity that is directly related to moderate weight loss and blood pressure regulation. Studies have shown that 3,000 steps in 30 minutes is roughly equivalent to walking at an average intensity in adults. These steps should have a moderate intensity and be more than 100 steps per minute. A value of less than 5,000 steps per day is regarded as the *sedentary lifestyle index* of groups [5]. The study of subjective and objective characteristics of physical activity and their comparison is an urgent and, however, insufficiently studied problem, especially in relation to the population of older age groups [6]. On the one hand, objective data is needed to develop programs aimed at increasing physical activity level. Nevertheless subjective opinions on the level of physical activity are also very important. They are indicative, even if they do not coincide with objective characteristics. If the level of physical is perceived as high, a person will not make any effort to increase physical activity. In such situations, recommendations for more physical activity will not be implemented. So when identifying risk factors, it is necessary to determine not only objective, but also subjective characteristics of the level of physical activity. If there is a discrepancy in its estimation, the work on its correction should be carried out.

*Objective:*

the analysis of subjective and objective characteristics of physical activity in the population of older age groups.

## MATERIALS AND METHODS OF RESEARCH

Data on the characteristics of physical activity were obtained on the basis of a survey of 1,045 respondents of both genders aged 60 years and older. The respondents lived in Moscow, did not have any kind of disability and were not engaged in any sport activities.

As subjective characteristics of physical activity, we considered the opinion of a respondent, who was supposed to choose from three possible answers: high, medium, and low. As an objective indicator of physical activity, we used the data on the hiking distance per day. During the analysis, three ranges intensity of physical activity were identified. The first range of physical activity implied its high level — walking more than 3 km a day, that is, about 7–10 thousand steps. The second range included 3 km (5 thousand steps), which was characterized as a middle level of physical activity. The third range included a distance of less than 3 km per day (less than 5 thousand steps), and the corresponding load level was considered *low*. When estimating the distance, all physical activity was taken into account (moving around the house, shopping, dog walking, etc.). Since other types of physical activity were rare among the respondents of the studied age groups, the data on hiking distance (number of steps) was chosen as the most objective criterion used to divide groups into subgroups with high, medium and low physical activity. The research analysis was carried out in two age groups: 60–74 years and 75 years and older.

## RESEARCH RESULTS AND DISCUSSION

According to subjective perceptions,  $16.9 \pm 3.8$  per 100 men surveyed believe that their physical activity is high, and half of them estimated it as average ( $49.2 \pm 3.9$  per 100 men surveyed). Age has a very strong influence on subjective perceptions of the level of physical activity. Thus, in the age group of 60–74 years, men were significantly more likely to consider their level of physical activity to be high ( $26.6 \pm 4.4$  in the age group of 60–74 years versus  $7.6 \pm 2.1$  in the age group of 75 years and older per 100 men surveyed) ( $p < 0.05$ ) (fig. 1).

The average level of physical activity was observed by more than half of the surveyed men aged 60–74 years ( $56.5 \pm 3.5$  per 100 surveyed men). In the older age group, there were two times fewer of them ( $25.2 \pm 4.1$  per 100 male respondents) ( $p < 0.05$ ). Accordingly the number of men with low levels of physical activity was higher in the older age group ( $46.5 \pm 3.1$  at the age of 75 years and older versus  $14.3 \pm 2.5$  at the age of 60–74 years). According to subjective perceptions, the level

of physical activity in women is less than in men. Only  $10.2 \pm 1.9$  per 100 women surveyed believe that their level of physical activity is high. The majority assesses their level of physical activity as low ( $63.3 \pm 2.9$  per 100 women surveyed).

The age of women, as well as men, has a very strong influence on subjective perceptions on their level of physical activity. If in the age group of 60–74 years, female respondents were significantly more likely to consider their level of physical activity high ( $19.3 \pm 3.6$  in the age group of 60–74 years versus  $4.6 \pm 0.8$  in the age group of 75 years and older per 100 women surveyed) ( $p < 0.05$ ). The average level of physical activity was observed in more than half of the women surveyed aged 60–74 years ( $51.3 \pm 3.4$  per 100 women surveyed). In the older age group, there were significantly fewer of them ( $29.5 \pm 3.8$  per 100 women surveyed) ( $p < 0.05$ ). Accordingly, the number of women with low levels of physical activity was higher in the older age group ( $63.3 \pm 2.1$  at the age of 75 years and older versus  $28.9 \pm 2.1$  at the age of 60–74 years) (Fig. 2).

An objectively high level of physical activity was found in  $5.1 \pm 1.8$  per 100 surveyed men aged 60 years and older. In the first of the selected age groups (60–74 years), there were significantly more men with a high level of physical activity — 7.14 at the age of 60–74 years versus 3.14 at the age of 75 years and older per 100 men surveyed. The data obtained is significantly lower than subjective perceptions. So, in the age group of 60–74 years, 27% of men claimed to have a high level of physical activity, while objectively they were able to confirm it four times less. In high school In the age group (75 years and older), the differences were smaller, but also significant – 8% of men declared a high level of physical activity, while objective criteria indicated that 2.5 times fewer men of the corresponding age had such a level of activity.

The average level of physical activity was found in almost half of the surveyed men ( $46.9 \pm 3.1$  per 100 surveyed men aged 60 years and older). A low level of physical activity according to objective criteria was observed in almost half of the men in the group under study ( $44.7 \pm 3.5$  per 100 respondents). According to subjective estimates, 56% of the surveyed men aged 60–74 reported an average level of physical activity, which also corresponds to objective indicators. In the age group of 75 years and older, two-thirds of the men surveyed ( $60.2 \pm 2.89$  per 100 respondents) walk less than 1 kilometer per day. Differences in the level of physical activity of men in the age groups 60–74 years and 75 years and older are significant ( $p < 0.05$ ).

In older women, a high level of physical activity was observed in  $4.2 \pm 1.0$  per 100 women surveyed. This level of activity was registered more often, as in men, in

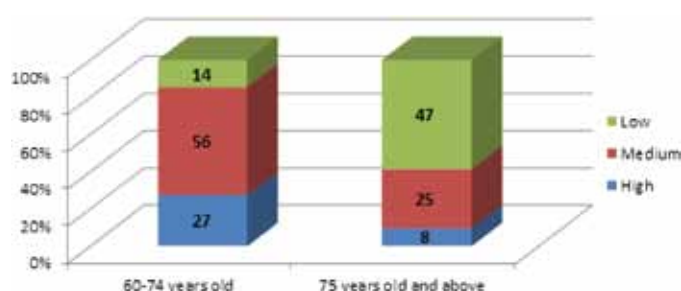


Fig. 1. Data on subjective perceptions of the level of physical activity of men in different age groups (per 100 surveyed men in each age group)

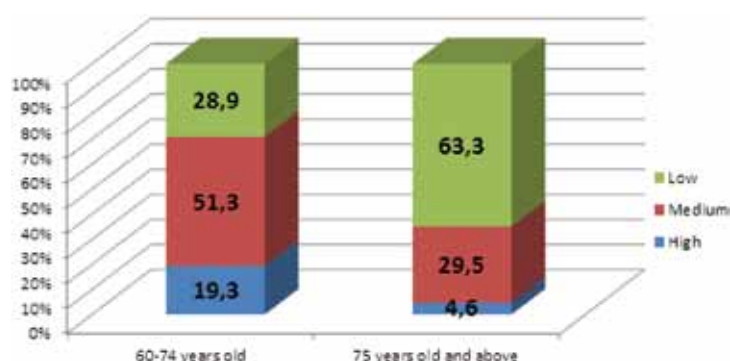


Fig. 2. Data on subjective perceptions of the level of physical activity of women in different age groups (per 100 women surveyed in each age group)

the age group of 60–74 years ( $7.5 \pm 1.7$  per 100 respondents). In the age group of 75 years and older, this level of physical activity was observed only in  $2.1 \pm 0.8$  per 100 women.

The average level of physical activity was found in one third of the women surveyed ( $33.6 \pm 4.1$  per 100 women aged 60 years and older). In the age group of 60–74 years,  $53.1 \pm 5.5$  per 100 respondents have an average level of physical activity. According to subjective estimates, 51% of the surveyed women in this age group reported an average level of physical activity, which is exactly the same as objective indicators. In the age group of 75 years and older, only one in five women ( $21.7 \pm 4.5$  per 100 respondents) walk more than 1 km per day. According to subjective estimates, 29% of the surveyed women are in this category. The respondents of this age group reported an average level of physical activity, which slightly exceeded the objective parameters. Differences in the walking distance among women in the age groups of 60–74 years and 75 years and older were significant ( $p < 0.05$ ).

Women, as well as men, seemed to sufficiently overestimate their level of physical activity. In the age

group of 60–74 years, it was overestimated by 2.5 folds and in the age group of 75 years and older by 2 folds.

## CONCLUSION

When comparing subjective and objective characteristics of physical activity, there is a significant overestimation in relation to a high level of physical activity (subjective perceptions) and an underestimation of the prevalence of low levels of physical activity, both in men and women.

Gender comparison showed that mostly men in the age group of 60–74 years overestimated their level of physical activity. In our study, the discrepancy score was up to 4-fold. Women were more critical of their level of physical activity.

Men in the age group of 60–74 years in the majority have an average level of physical activity (covered more than 1 km on foot per day), while men in the age group of 75 years and older have a low level (covered less than 1 km on foot per day). Women in the age group of 60–74 years in the majority have an average level of physical activity (covered more than 1 km on foot per day), while women in the age group of 75 years and older have a low level (covered less than 1 km on foot per day). The results obtained have almost no gender differences.

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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.18>

## MEANING IN LIFE IN ELDERLY

Received 20 August 2021;  
Received in revised form 13 September 2021;  
Accepted 15 September 2021

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**ABSTRACT** — AIM: Starting from the research of the Austrian psychiatrist Viktor Frankl, the meaning in life proved its importance, being studied in the context of different research traditions, existential psychology, positive psychology, clinical psychology, developmental psychology. This is a pilot study targeting a group of twenty elderly Romanians who live in a Residential Center in Bucharest. METHODS: The study assumes that we'll have statistically significant correlations between independent variables (presence of meaning, search for meaning) and dependent ones (depression, anxiety, stress, life satisfaction). Method: The research uses correlation analysis for the variables: meaning presence and meaning search from M. Steger's MLQ questionnaire, defined as independent variables in the study and dependent variables: depression, anxiety, stress (DASS-21 questionnaire), and life satisfaction (Satisfaction Scale with Life, SWLS). RESULTS: The research results highlight good internal consistency (Cronbach's coefficient  $\alpha > 0.70$ ) for the two subscales of the M.L.Q. questionnaire. The statistically significant inverse link between the level of stress and the presence of meaning in life is confirmed, the statistically significant inverse link between the total score of depression and the presence of meaning in life is confirmed; the variable life satisfaction is the only dependent variable for which statistically significant links are confirmed with both independent variables simultaneously (presence of meaning in life and search for meaning of life); Pearson correlation coefficients are statistically significant, Sig values, associated, lower than the 5% threshold, require the rejection of the null hypothesis.

**KEYWORDS** — meaning in life, old age, mood, stress, depression, anxiety, satisfaction with life.

## INTRODUCTION

According to Viktor Frankl's theory, people need to give meaning to life and this motivation he called *the desire for meaning* (Frankl, 1962). The personal values of the individual are generative of meaning (Breaz & Moldovan, 2017; Strugar, 2018; Talos, 2021; Tudor et al., 2019). Viktor Frankl's psychotherapy (logotherapy) is based on the meaning in life, the personal significance of life at a moment in time.

This approach is continued by Michael F. Steger, who also focuses on the present meaning in life and the re-significance of events.

I decided to use as a research paradigm the *presence and search* model developed by Michael F. Steger, which assume that the meaning of life is important to the human being; when people feel that their life is little significant, or when they lose meaning, they will seek it (Steger et al., 2008). Therefore, he agrees with Frankl's theory, which refers to the search for meaning as a primary human motivation.

The research results are important for the psychology of interpersonal relationships in old age and Romanian society today.

The central hypothesis of the study is that the meaning of life, the subjective perception of one's life history, its interpretation based on the system of personal values can lead to the conclusion that life is worth living or not, the mental balance reflected in a good general health, or a dysphoric mood dominated by anxiety-depression.

This study aims to correlate the meaning in life in old age, life satisfaction, and emotional balance. This pilot study opens an extensive study on the meaning in life in older adults.

## METHODS

The subjects participating in the research, aged 56 to 88 (twenty persons), were selected from a residential Center in Bucharest, the criterion for including is the willingness to participate in tests and cognitive capacity.

The research hypothesis is that we'll have statistically significant correlations between independent variables (presence of meaning, search for meaning) and dependent ones (depression, anxiety, stress, satisfaction with life).

For the purpose of this research, the participants completed three questionnaires to assess their scores for the presence of meaning in life, the search for meaning in life, depression, anxiety, mental stress, and satisfaction with life.

The following questionnaires were filled:

— *The Meaning in Life Questionnaire (M.L.Q., Steger et al., 2009)*. This is a questionnaire of primary importance for general well-being (M. Steger et al., 2009), valid and reliable for assessing the meaning of life in different socio-demographic populations (Naghiyae et al., 2020), has a good internal consistency and Alpha Cronbach coefficients ranging from 0.81-0.86 for the *Presence of meaning* subscale and 0.84-0.92 for the *Search for meaning* subscale (Steger



et al., 2006), the validation in Romania on a sample of 320 students highlights a good internal coefficient Cronbach's  $\alpha = 0.79$  for the *Presence of meaning* subscale and Cronbach's  $\alpha = 0.85$  for the *Search for meaning* subscale (Balgui, 2020). The Depression Anxiety Stress Scales (D.A.S.S.-21, Lovibond et al., 1995) is a set of three self-report scales designed to assess negative emotional states: depression, anxiety, and stress. This questionnaire can be used in research and clinical use in people over 17 years of age (Lovibond et al., 1995).

— **The Satisfaction with Life Scale (S.W.L.S., Diener et al., 1985).** The scale was developed to assess people's satisfaction with life as a whole. The scale has a good convergent validity with other scales and other types of subjective well-being assessments. Preliminary studies with S.W.L.S. reveals that life satisfaction is a significant and useful psychological concept in research (Diener et al., 1985).

## RESULTS

Internal consistency analysis for the M.L.Q questionnaire: Cronbach's coefficient's  $\alpha = 0.819$  for the *Presence of meaning* subscale and Cronbach's  $\alpha = 0.85$  for the *Search for meaning* subscale. Cronbach's  $\alpha$  can take values between (0, 1), and the values obtained by us are  $> 0.70$  considered the threshold in research for a good internal consistency of the scale. The Presence and Search subscales highlight a good internal consistency (Table 1).

**Table 1.** Cronbach's coefficient  $\alpha$

Reliability Statistics PRESENCE SUBSCALE			Reliability Statistics SEARCH SUBSCALE		
Cronbach's Alpha	Cronbach's Alpha Based on standardized Items	N	Cronbach's Alpha	Cronbach's Alpha Based on standardized Items	N
.819	.819	5	.814	.825	5

Regarding the average values, the presence of meaning in life has the highest value of all the variables analyzed, of 25.9 points, followed by the satisfaction with life, with an average of 22.1 points. The total anxiety score is the variable with the lowest average score of 6.2 points (Graph 1), a threshold corresponding to a normal level of anxiety. The average level of stress and depression is within normal limits.

The only average calculated representative for the study population is in the case of the score of the presence of meaning in life (Pearson's coefficient of variation below 30%). For the other variables analyzed, the coefficient of variation indicates that we are dealing with a heterogeneous sample for research.

Regarding the possible links between the analyzed variables, we want to validate the correlation between independent variables (presence of meaning in life, search for meaning in life) and those considered to be dependent (depression, anxiety, stress, satisfaction with life).

Pearson correlation coefficients are statistically significant, Sig values. associated, lower than the 5% threshold, require the rejection of the null hypothesis, for most pairs of tested variables, except for anxiety, for which the calculated coefficients are statistically insignificant.

Between the level of stress and the presence of meaning in life, the statistically significant negative connection of medium intensity is confirmed (coefficient of  $-0.47$ ). If the scores of the presence of meaning in life will increase, the total scores of stress will decrease. There is no statistically significant link between stress levels and the search for meaning in life. Identically, between the total score of depression and the presence of meaning in life is confirmed the statistically significant correlation, negative, of medium intensity (coefficient of  $-0.651$ ). If the scores of the presence of meaning in life will increase, the total scores of depression will decrease. There is no statistically significant link between the total score of depression and the search for meaning in life. The intensity of the statistical link between depression and the presence of meaning in life is the most intense, of all the combinations analyzed.

Satisfaction with life is the only dependent variable for which statistically significant links are confirmed with both independent variables simultaneously (presence of meaning in life and search for meaning in life). Both links are of medium intensity (coefficient of 0.506 and  $-0.46$ , respectively), the difference is the direction of the connection, positive connection with the presence of meaning in life, negative with the search for meaning in life (Table 3). Therefore, if the scores of the presence of meaning in life will increase, the total scores of satisfaction in life will increase also.

## DISCUSSION

The research hypothesis is confirmed, except for the total level of anxiety, which does not correlate

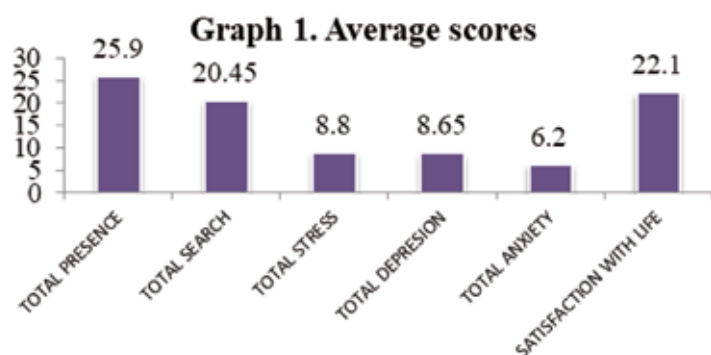


Fig. 1. Average scores [SPSS]

Table 3. Pearson linear correlation coefficients [Source: SPSS]

	Total Presence	Total Search
Total Stress	-0.47*	0.28
Total Depression	-0.65**	0.23
Total Anxiety	0.38	0.39
Satisfaction with life	0.50*	-0.46*

Note: \*\* statistically significant at the 1% threshold

\* statistically significant at the 5% threshold

with any of the independent variables. For the other combinations tested, except for life satisfaction, the rest of the dependent variables do not correlate with the search for meaning in life.

### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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Table 2. Descriptive statistics at the sample level [Source: SPSS]

	Average	Median	Standard Deviation	Coef. Vari.	N (sample)
Total Presence	25.90	27.50	7.67	29.61%	20
Total Search	20.45	22.00	8.02	39.23%	20
Total Stress	8.80	7.50	5.01	56.95%	20
Total Depression	8.65	7.00	6.55	75.79%	20
Total Anxiety	6.20	5.00	5.03	81.18%	20
Satisfaction with life	22.10	23.50	10.04	45.43%	20

<http://dx.doi.org/10.35630/2199-885X/2021/11/5.19>

# THE EFFECT OF USING FACEBOOK ON ELDERLY PEOPLE DURING COVID-19 PANDEMIC

Received 30 August 2021;  
Received in revised form 17 September 2021;  
Accepted 20 September 2021

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**ABSTRACT** — The use of the Facebook communication network during the pandemic Coronavirus by the elderly was beneficial because it played a role in connecting family and friends, when physical encounters could not take place. Social media has presented numerous benefits on mental health, such as: developing skills in using new technologies that delay cognitive impairment, lower levels of loneliness and positive visions of the future. Many users said that in addition to being close to family, they learned about the pandemic and what it means, but they also expanded their list of friends in the virtual environment. Through the video call option, they were able to communicate with the loved ones and managed to overcome social isolation and the feeling of loneliness. Therefore, the use of Facebook has been beneficial among the elderly, giving them a pleasant environment of social and emotional connection with the loved ones, communication with virtual friends has been developed, and self-confidence has increased. Facebook communication network users obtained a higher score when assessing social satisfaction and increased confidence in technology.

**KEYWORDS** — psychiatry, pandemic, the elderly, Facebook, benefits.

## INTRODUCTION

With the onset of the Coronavirus pandemic, social media quickly became one of the main communication tools used among the category of young adults (Brez, 2020; Cucu & Lența, 2020; Sandu, 2019; Șteți, 2021), and therefore the services of Facebook has had significant advantages helping to reserve the communication between people in a safe conditions.

Not just for bring them nearer to family and favorite ones, additionally by managing to beat the sensation of loneliness and social isolation and provide them the opportunity to reach out, regardless of the pandemic conditions (Hajek & König 2020).

## METHODS

This study is based on a questionnaire that consists of a set of 18 questions using both the "Google Forms" online platform and another physical questionnaire that was completed by elderly respondents.

This form aims to focus on the advantages of Facebook among the elderly. The questionnaire consists of questions on general and personal data (age, gender, location), the effect of Facebook on their perception of life throughout the pandemic, how they managed to get over the loneliness and the way they adapted to the restrictions through the web setting.

It was found that almost all the subjects got closer to their families through the Facebook network. Additionally, they had access to useful information regarding the pandemic, and its continuous updates; Moreover, elderly people could enlarge their list of friends, even within the virtual setting (Ciobotea et al 2016; Rinderud, 2021; Zhang et al, 2020).

The accuracy of the answers provided by the participants is considered a limitation, because it is difficult to control.

According to the study conducted within the United States of America, that involved 1620 participants in the age of over fifty years old, it had been shown that individuals who use social networks had lower levels of loneliness compared to different group of participants (Bell et al, 2013, Yu et al, 2016).

In people aged over sixty years, who participated in a study, conducted in third world countries, it was demonstrated that using the social network platforms were not associated with the feelings of loneliness neither social or emotional isolation. (Hajek & König 2020, Luca et al 2020)

Studies were conducted in different countries, such as Germany, which showed that elderly who used the Facebook network throughout the pandemic reported lower scores of social isolations; In contrast to participants who didn't frequently use the Facebook network. (Hajek & König 2020)

## RESULTS

Following the distribution and completion of the questionnaire, it was shown that the people who used Facebook most often are between 60–64 years old, which represents a percentage of 45.1%. In the

second place, people aged 65–70, which represents a percentage of 21.6%. People aged 71–75 and 76–80 are represented by the following percentages: 19.6% and 13.7%, respectively.

Regarding the distribution by the sex of the participants, the elderly in the study group are 62.7% females, and 37.3% are males.

Regarding the area of origin, 74.5% of the people who completed the questionnaire are from the urban area, and 25.5% from the rural area.

When asked if they used the social network Facebook during the pandemic, 90.2% had a positive answer and only 9.8% answered that they only used it for a few times.

It was found that the majority (58.8%) of the elderly used Facebook between 1–3 hours a day, 31.4% used it between 4–6 hours a day, 7.8% used it between 7–9 hours a day and only 2% utilized it for 30 minutes a day.

They declared that the time spent on this social network increased significantly with the onset of the pandemic.

As for the purpose of using Facebook during the pandemic, the participants have

Declared that they used it to communicate with their families (70.6%), for informational purposes (65.2%), and 54.9% communicated with both family and friends.

When people were asked if Facebook helped them get closer to family and the loved ones during the pandemic, most of them had a positive response (78.4%), only 17.6% reported the answer *sometimes*, and a negative answer was represented by a percentage of 3.9%.

This question demonstrates that the social network during the pandemic was beneficial for most elders by bringing them closer to their loved ones.

Among the communication options offered by Facebook, the participants involved in this study stated that they prefer the video call option in a percentage of 62.7%, text messages by (49%), audio call by (29.4%), and audio messages by (19.6%).

Following the question *Who did you communicate more with on Facebook during the pandemic?* it was found that 86.3% of people answered that they have communicated with their children, 68.6% communicated with their grandchildren, 25.5% did communicate with their friends, and 9.8% did connect with their former colleagues.

After communicating with family and friends, 66.7% of the elderly in the study group said they felt calm, 43.1% said that the feeling of loneliness had decreased, 35.3% said that the state of anxiety was reduced and the impact of social isolation was not so strong, 31.4% felt safe, and 29.4% said they were happier. These are just some of the benefits that the social

network Facebook has brought to the elderly. The answers to the question about how Facebook was helpful were: 54.9% answered that they met new people, 45.1% met their former colleagues / friends, 41.2% had renewed friendships.

When older people use the social network Facebook, they said they feel comfortable because: they talk to family (80.4%), they talk to close friends (58.8%), they get news updates (51%), watch funny videos with children or animals and make them feel good (41.2%), communicate with virtual friends (29.4%), watch favorite shows (19.6%).

People who participated in this study stated that they prefer this social network because it has the option of video calling (62.7%), have access to photos of family and friends (51%), can call both audio and video relatives from another country at no extra cost and can hold a video conference with all family members (47.1%).

The people from the studied group declared in a percentage of 100% that the decision to create a Facebook account, as well as the use of this social network was a correct one.

## DISCUSSION

During the pandemic, the use of the social network Facebook was beneficial among young people, and more specifically among the elderly. Not only it did bring them closer to their families, but it also gave them information about what was going on around the world and helped them reunite with former colleagues / friends.

Communication on social networks offer the elderly a pleasant environment to stay socially and emotionally connected with loved ones.

Through the video calling option, they were able to communicate with loved ones and managed to overcome social isolation and feelings of loneliness more easily, by increasing the level of support and social contact.

The ability to communicate with virtual friends has been developed and was beneficial for increasing self-confidence.

The use of the Facebook communication network was associated with a state of peace, support and security. It helped them during the pandemic to access information, kept in touch with family and the loved ones, adapted more easily to the sudden changes associated with the pandemic, and social isolation did not have as strong an impact as before.

## Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health “Galatia” 2021.



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<http://dx.doi.org/10.35630/2199-885X/2021/11/5.20>

# TRIOGENESIS OF EXTREME HETERO-AGGRESSIVE BEHAVIOUR IN PSYCHIATRIC FORENSIC EXPERT PRACTICE

Received 30 August 2021;  
Received in revised form 18 September 2021;  
Accepted 20 September 2021

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**ABSTRACT** — An individual's behavior can be defined as a set of complex reactions of the body to internal and external stimuli.

**CASE DESCRIPTION:** We present a case of a young adult student who, under the circumstances of an anomic environment, causes a female person multiple stab wounds to the cervical region. The patient has an addiction to virtual reality, personal psychiatric history of a depressive disorder, emotional and anxious behavioral disorders, as he was a regular cannabis user. The young man was attending an event where he was consuming alcohol and banned substances (Ecstasy), whose effect combined with antidepressants creates a virtual reality in which the individual has a particular mental state, having the impression that bystanders want to hurt him. Under the impulse of this state, the individual uses a bladed weapon and causes multiple wounds to the victim. The patient is examined in the psychiatric forensic examination commission to determine the discernment at the time of the act of violence and for recommendations regarding safety measures.

**CONCLUSION:** The approach of hetero-aggression behaviour is based on three categories of causal factors, in a triune concept that implies the consequence of the interaction of the existential environment, with the personality structure of the young individual and with the circumstantial factors that precipitate the act.

**KEYWORDS** — hetero-aggressive behaviour, depressive disorder, psychoactive substances, virtual reality addiction.

## INTRODUCTION

Hetero-aggressiveness, defined as a set of complex reactions of the body towards internal and external stimuli, reactions driven and organized by innate or gained reflexes, which guide the adaptation and integration of the subject in environmental relations ensuring its existential continuity (Ciubara et al., 2015; Scripcaru & Astarastoe, 2003; Radulescu et al., 2020). Innate behavior is registered in the genome and ensures

adaptation to a stable environment (Scripcaru & Astarastoe, 2003, pp. 60–76.). This type of behavior becomes deficient to an unstable environment, when the innate potential is influenced by external factors that disrupt the integrity of the personality.

In specialized literature (Cogian & Karner Huțuleac, 2020; Coppola et al., 2020; Damian et al., 2020; Rodideal, 2018), the aspects regarding triggers of hetero-aggressiveness were frequently analyzed separately, the particularity of our case being given by the coexistence of the three factors: depression, gaming addiction and psychoactive substances.

## CASE DESCRIPTION

20-year-old male patient, student, unmarried, belonging to a single-parent family, with a personal psychiatric history of one psychiatric examination performed 4 months before the crime, in the specialized ambulatory medical care, after which he got an antidepressants and anxiolytics treatment. He has also been investigated in the past for cardiac arrhythmias and anxiety disorders. The patient stated that he went for psychological counseling for both depressive episodes and behavioral and emotional disorders, which occurred during childhood and adolescence. Personal history of occasional consumption of multiple psychoactive substances, with chaotic consumption patterns, for experimental testing purposes. Average history of cannabis use, with a significant period of compulsive use, with a nearly daily frequency.

Brief history of the crime following the judicial investigation: “on day X, in his home in the city of Y, he consumed alcoholic beverages and drugs with other people. He stabbed the victim with a knife in the neck area, causing multiple stab wounds with interest in the pectoral muscles and latimus with a juxta-tracheal trajectory”.

The patient underwent a psychiatric forensic examination, which shows that the patient has an average level of intelligence, oriented to time and place, attention and memory within normal range, normal flow of ideas, coherent, without abnormalities of thought and form content; without productive perception disorders at the time of the examination, emotionally unstable and impulsive. The psychological examination records, after the investigation of the subject with

the Questionnaire of Psychoneurotic Tendencies Risk: self-censorship effort, adaptation difficulties, indeterminacy, indecision, insecurity, with an explosive spirit and hasty reactions; old or recent emotional conflicts (due to family climate); recent accentuated depressive tendencies; the desire to do good, to straighten out due to a sense of guilt. The psychoanalytical test (Szondi Test) highlights that the subject is afraid of not being believed of being capable of some things, he lives in fear of what people would say when they find out about his act of violence. Regarding the crime, he stated that after consuming alcohol, antidepressants and Ecstasy he had a particular mental state, "I was feeling like I was in virtual reality and I had the impression that those around me wanted to kill me, my girlfriend was holding the phone to her ear and I thought she wanted to kill me and then I hit her, then I ran down the street and called the police".

The conclusions of the psychiatric forensic expertise report are the following: the said N, presented behavioral manifestations of acute psychotic disorder with hallucinatory-delusional character, with multifactorial etiopathogenesis. In relation to the act for which he is investigated, he presented diminished discernment and medical safety measures were recommended pursuant to Art. 109 CP.

## DISCUSSION

We approach the case in a triune way, performing a comparative analysis with works from specialized literature. Next, I will present the three factors, depression, video games and psychoactive substances, individually. I must specify that I will not enlarge upon the topic of depression, as it is a well-known and studied pathology.

The World Health Organization defines depression as a common pathology that causes sadness and lack of interest; It affects about 350 million people worldwide, and the most severe forms can lead to suicide (Dias et al., 2018). Over the past decade, depression has, in many cases, been associated with Internet gambling disorder (IGD), but its epidemiological impact has not yet been systematically assessed (Ostinelli et al., 2021).

**Video games** — their popularity has grown heavily in the last decade. About half of America's population plays video games, and 10% of them consider themselves as *gamers*, meaning their daily activity is consistently marked by these games (DeCamp, 2017). A study of the positive effects of video games (Ferguson & Ferguson, 2010) reveals their positive characteristics such as the reduction of *flashbacks* in a post-traumatic syndrome, the reduction of chronic pain and even the formation and development of pro-

fessional skills (Ferguson & Ferguson, 2010). At the same time, the excess of video games can raise many problems. A 3-year study ran on teenagers in Sweden reveals that gaming problems are relatively consistent over a longer period of time (Vadlin et al., 2018). Many studies have shown that the characters chosen from video games are reflected over time on the real personality of the players, especially in adolescents. For example, RPG (role-playing games) whose character is violent, can develop a violent personality in real life (American Academy of Pediatrics, 2013). Another Norwegian study on adolescents has shown that video game addiction is frequently associated with personality disorders, depression and relationship disorders (Quwaider et al., 2019). All these personality changes and subsequent degrading disorders are due to the fact that adolescents have not developed a permanent character yet (Ciobotea et al., 2016; Luca et al., 2020).

People's motivation to use video games includes a variety of explanations. Snodgrass conducted a qualitative study in which he discovered that excessive video games are a way of combatting everyday stress (Snodgrass et al., 2014). Precisely for this reason, many teenagers and young adults take refuge in this virtual reality, where the comfort zone is present, they can control their actions and no longer feel the pressure of the daily goals of real life. Another study conducted by Shi in 2019 on 16 people, 11 males and 5 females, reveals that the time spent per week falls within a range of 10-36 hours. Participants said that video games are significant and that they have an important place in their lives from a social point of view. For example, they make new friends, discuss various topics, and some of them want to work in the video game industry in the future, spending a lot of time thinking about how they could turn passion into a source of income (Shi et al., 2019).

Therefore, video games are located at two opposite poles, one that is associated with depression, isolation from the real world and one that combines passion, joy and future perspectives.

**Psychotropic substances.** Addiction is characterized by compulsive, uncontrolled behavior, exemplified by drug use, despite their side-effects, under the influence of genetic or environmental factors (Ciubara et al., 2016; Quwaider et al., 2019). Drug addiction has euphoric forms (opium, cocaine, heroin), fantasy (cannabis), drunkenness (alcohol) and excitants (coffee) (Chirita et al., 2012; Scripcaru & Astarastoe, 2003). Adolescents and young adults are more prone to changes in the neurotransmitter and hormonal system, following the use of alcohol or drugs, due to the immaturity of neuronal cells, which are more vulnerable to exposure to these substances (Winters

et al., 2012). Also, the uneven maturation of brain structures, for example the limbic system (region that involves emotions and behavioral rewards), develops faster than the cerebral cortex (the region that mainly deals with reasoning) which otherwise contributes to increased feelings of assumption (Steinberg, 2004; Zabetian, 2015), playing a role at the moment before an act, by creating a false impression of entertainment or even danger.

Scripcaru and Astarastoea (2003) concluded that the individual is naturally born neither good, nor bad, but with aggressive impulses that are counter-annihilated through culture and education. Depression issued on the background of coming from a single-parent family, isolation in virtual reality and the need for post-consumption endorphins of psychotropic substances, materialized hetero-aggression in the presented case.

Depression, depicting the basic pathology in this case, may explain some actions which aim to minimize symptoms, such as the consumption of psychotropic substances, which through their action on the central nervous system, create euphoric states. In an anomic society, psychotropic substances become a pseudo-necessity that is imposed as the main factor of resorting to the act, by forming a personality characterized by irritability, impulsivity. In conclusion, the three categories of causal factors focused on a triune concept reveal that deviance, and implicitly, delinquency are the consequence of the interaction between the existential environment of the individual in which the personality was shaped and the circumstantial factors that preceded the resorting to the act.

#### Acknowledgment

This research was presented at 5<sup>th</sup> European Conference of Psychiatry and Mental Health "Galatia" 2021.

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