

The Impact of Covid-19 on Severe Mentally ill Patients in One Mental Health Center in Kosovo

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Abstract

Immediately after the onset of the pandemic some scholars speculated that people with serious mental illnesses would be at uniquely high risk during this period. Recent studies show that people with serious mental illness are at increased risk of being infected by Covid-19 and have higher subsequent rates of hospitalization, morbidity, and mortality. There are studies that also show that stress caused by the Covid-19 pandemic and restrictive measures can precipitate and worsen psychotic symptoms.

Our aim was to understand the mental state of the mentally ill people at one Mental Health Center in Prizren, Kosovo as a result of the situation created by Covid-19.

It's a cross-sectional study. 91 patients diagnosed with severe mental illness (Schizophrenia and other psychotic disorders) and 47 their primary caregivers were interviewed via phone calls or directly about their mental state.

Findings showed that 15.2% of the sample didn't use medication regularly while 27% didn't follow the pandemic rules / restrictions. The level of self-care was not present in about 24.6 % of the sample. Also participants reported the presence of somatic complaints (26.1%), aggression (23.2%), nervousness (21%), fear (20.3%) and suicidal thoughts (2.9%). Moreover, 13.8% of patients were not in a good mood and 12.3% did not sleep well. Our findings are in line with studies reporting that schizophrenic patients are unimpressed by Covid-19 situation.

A quarter to one fifth of patients with severe mental illness showed signs of deterioration. It is difficult to conclude on the extent of their suffering and further studies are needed. Further studies should determine the level and modes of impact of Covid-19 on this vulnerable category of the population.

Keywords: COVID-19, Severe Mentally Ill Patients, Mental Health Center, Prizren, Kosovo

Introduction

There is a widely accepted consensus by now that Covid-19 pandemic has heavily affected people's lives and communities. This is a mental health emergency, too, which presents substantial challenges for our patients, their families, our multi-disciplinary teams and our psychiatrist colleagues (Kelly, 2020). Global health authorities as the World Health Organization are concerned over the pandemic's mental health and psycho-social consequences (World Health Organization, 2020). The world was poorly prepared for the COVID-19 pandemic and this crisis has disrupted the delivery of psychiatric services worldwide (Kola et al, 2020). Even, the WHO general director Ghebreyesus noticed that COVID-19 is likely to exacerbate pre-existing mental health conditions, while limiting access for those in need of services because in many countries, community mental health services have stopped functioning (Ghebreyesus, 2020). Druss (2020) in the same line with other scientific opinions, speculates that people with serious mental illnesses will be at uniquely high risk during this period; (e.g., see Shigemura et al., 2020; Montemurro, 2020; Kaufman et al, 2020; Lai et al, 2020 and Rohde et al, 2020).

But Hao et al (2020) in an article published online in April 2020 states that the psychological impact on people with mental disorders remains unknown because there is still little research on the psychological impact and mental health of psychiatric patients living in the community during the COVID-19 pandemic. Yet in June (2020) Kahl and Corell stated that the number of inpatient and outpatient contacts with severe mental illness has largely reduced during the

COVID-19 outbreak. Another important aspect refers to the great challenges for psychiatrists in managing psychiatric patients during the COVID-19 pandemic (Hao et al, 2020).

Two nationwide cohort studies in the US (Wang, et al 2020; Taquet, et al 2020) show that there is an increased incidence of COVID-19 among individuals with mental disorders. Increased risk of being infected by coronavirus disease 2019 (COVID-19) and having higher subsequent rates of hospitalization, morbidity, and mortality is stated also by Wang, et al (2020) and Li et al (2020). Nemani et al (2021) in a cohort study of 7348 adults with laboratory-confirmed COVID-19 in a New York health system found that the premorbid diagnosis of a schizophrenia spectrum disorder was significantly associated with mortality (odds ratio -2.67).

Individuals with psychiatric disorders might experience worsening symptoms (Gunnell et al, 2020; Sønderskov et al, 2020; Haider et al, 2020) and also may be at higher risk of relapse or new episodes due to the high stress levels associated with the COVID-19 outbreak (Yao et al., 2020; Fischer et al., 2020; Sommer et al, 2020) which might act as a trigger into the manifestation of psychotic symptoms in patients with pre-existing mental illnesses. Finally stress related to a pandemic may also precipitate, exacerbate or impact the content of the psychotic symptoms (Li, 2020; Fischer et al 2020).

However, findings of previous studies on the impact of a natural and manmade disaster on individuals with mental illness were inconclusive (Muruganandam et al, 2020). Muruganandam et al, (2020) reported levels of relapse as high as thirty percent during the lockdown period. A recent study in Italy (Isaevoli et al, 2020) found results indicating that patients with serious mental illness had higher levels of COVID-19-related perceived stress (four times), anxiety (two to three times), and depressive symptoms (two to three times) compared to non-psychiatric participants. Findings from Spain reveal a similar picture; González-Blanco et al (2020) reported that patients with severe mental disorders reacted to the pandemic and the lockdown restrictions with higher anxiety levels as compared to the general public. Liebreuz et al (2020) and Duan et al (2020) assert that prevention measures such as isolation and quarantine, produce fear, anxiety, and uncertainty to patients, causing exacerbation of pre-existing mental disorders. There are also studies indicating a differential effect of the global crisis for patients with affective and psychotic disorders (e.g., Hölzle et al, 2020); more specifically patients with affective disorders showed the strongest correlations of symptoms, while patients with schizophrenia are occupied with serious intrinsic issues and unperturbed by pandemic. Along the same line, a longitudinal study (Pinkham et al, 2020) of the effects of the COVID-19 pandemic on the mental health of 148 individuals with pre-existing severe mental illnesses has shown

that they have some degree of resilience in the face of the pandemic particularly during the early stages.

However, a major issue of concern has to do with adherence to pandemic protection measures and adherence to treatment. Shinn and Viron (2020) reported that severely mentally ill patients may have lower rates of adherence to treatment for medical conditions. In a rapid review (Brown et al, 2020) including three studies, authored concluded that psychotic patients' adherence with protective measures was revealed as markedly more problematic in people with psychosis. Sukut and Balik (2020) pointed out that patients receiving outpatient treatment due to serious mental illness have difficulty maintaining their treatment regimen.

As might be noted from the studies reviewed above, research from the Balkans on this specific topic is still missing, although the problematic might be the same if not worse than the data from other European countries.

The context of study: COVID-19 pandemic in Kosovo

As regards Kosovo, authors managed to find only one study addressing the mental health at the time of the pandemic in the general population in Kosovo. This study (Fanaj & Mustafa, 2021) has reported that 63% of online participants agreed that the situation had adversely affected their psychological state; 35.6% had a mild to severe form of depression and 18.7% had minimal symptoms. These figures show a high level of negative experience from the pandemic compared to other studies cited here (Fanaj & Mustafa, 2021). In this study significantly higher depression resulted for females (as compared to males) and the young age-group of 18 to 24 year olds .

The first case with COVID-19 in Kosovo was identified on 13th of March 2020 and three days later a Public Health Emergency was announced with strict lockdown restrictions put in place. The health system services in Kosovo as expected, were predominantly focused on prevention of infection and provision of treatment for those infected. In mid-March, the Ministry of Health declared a public health emergency due to COVID-19, but did not include any specific guidelines for mental health services. Few efforts were made through the provision of counseling lines for anxiety and stress were launched by the Ministry of Health and several other institutions. Nonetheless, it should be mentioned that mental health workers in these services were mostly volunteer psychologists, graduate students and last year students, some without proper experience and without adequate training. Community Mental Health Centers despite growing challenges have continued to provide reduced psychiatric and psychological services through home visits, follow-up of people with serious mental illness, and telephone counseling. An example is the Mental Health Center in Prizren, which functions as a community service for a region that comprises approximately

300,000 inhabitants. The multidisciplinary team includes psychiatrists, clinical psychologists, nurses and social workers. Faced with the pandemic in Kosovo, the Mental Health Center in Prizren continued the provision of essential mental health services to the population in the form of home visits, emergency psychiatric visits, telephone lines of psychological assistance, etc.

There had been a substantial increase in the number of infected individuals and overall deaths in Kosovo's population in the period when data were collected for this study, i.e., 8th to 22nd of May, 2020; this marks a period after the phase of relief begins after very restrictive initial restrictions.

After the war, Kosovo, like many other post-war societies, has experienced many challenges, including economic stagnation, widespread poverty, high unemployment, the movement of population from rural to urban areas, and poor quality of life, according to many agency reports. CIA The World Factbook (2017) reported that Kosovo's citizens are the second poorest in Europe, after Moldova, with a per capita GDP (PPP) of \$9,600 in 2016; population below poverty line -30% (2013 estimated); an unemployment rate of 33%, and a youth unemployment rate near 60%, in a country where the average age of the population is 26 years old. Mental Health system based in community is considered as success story in Kosovo, despite many challenges of course and several things which need to be improved.

The aim of this study was to understand the mental state of mentally ill patients as a result of the situation created by COVID-19. To our knowledge this is the first study on the impact of the Covid-19 pandemic on patients with severe mental illness in Kosovo.

Materials and methods

The present study has a cross-sectional research design. Participants were patients diagnosed with severe mental illness (Schizophrenia and other psychotic disorders) or their primary caregivers. We were aware of fact that studies have proved high rating concordance between caregiver and persons with psychotic illness about the patient's functioning level, which supports that reliable information can be obtained from their primary caregivers (Chand et al., 2014; Dickerson et al., 1997). Participants gave consent that their participation was voluntary, confidential and unidentifiable. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant authorities on human studies and with the Helsinki Declaration. The questionnaire was delivered and filled by nurses via phone calls or directly during home visits/ MHC visits. The data were processed from the responses

received in the time period of 14 days (08.05.-22.05.2020). Socio-demographic information was obtained regarding age, gender and place of residence. The questionnaire designed by the authors elicited issues like medication, sleep, appetite, nervousness, agresivity, anxiety, suicidal ideation, mood, self care, somatic pain, speaking about pandemics and following rules during restrictions phase. Scoring was based on a Likert type scale with range responses from from 0-3; where 0 (no), 1 (somehow/sometimes) and 2 (yes). The highest score means presence of changes in items asked. Data processing was performed with SPSS 21.0 and Microsoft Excel 2007.

Results

Participants were 138 respondents (91 patients, 47 caregivers). Mental health was assessed for 138 patients with psychotic disorder. The age of the evaluated patients was from 17 to 81 years old ($M_{age} = 46.97$, $SD = 11.58$). In terms of gender composition there were 100 men (72.5%) and 38 women (27.5%). As regards place of residence –the classification was: 81 individuals (58.7%) living in urban areas and 57 (41.3%) individuals living in rural areas. The assessment was conducted by direct meetings at Mental Health Center or home visits to 99 patients (71.7%) and by telephone to 39 patients (28.3%) (Tab. 1).

TABLE 1 Demographic characteristics of the participants in the survey.

Participants(n=138)	N	%
Gender		
Male	100	72.5
Female	38	27.5
Residence		
Urban	81	58.7
Rural	57	41.3
Interview type		
Face-to-face	99	71.7
Phone call	39	28.3
Interviewee		
Patients	91	65.9
Caregivers	47	34.1

Results showed that 84.8% of participants had used medication regularly while

73% of them had followed the rules / restrictions during the pandemic closure period. The level of self-care was also present in about 75.4% of the sample. Regarding the presence of symptoms / signs that would be taken as aggravation of the existing psychiatric disorder, results showed that only about 1/4-1/5 of them have shown problems such as, somatic complaints (26.1%), aggression (23.2%), nervousness (21%), nutrition (21%), fear / anxiety (20.3%), mood (13.8%), sleep (12.3%). One positive finding was that self-harm thoughts were reported in very low rates (2.9%).

TABLE 2 Percentages of questionnaire item responses and mean of the participants in the survey.

Item response	0 (No)	1 (somehow / sometimes)	2 (yes)	Mean
	%	%	%	
Medicaments take regularly	6.5	8.7	84.8	1.78
Has been in a good mood	13.8	34.1	52.2	1.38
Fear presence	63	16.7	20.3	.57
Has been more nervous than before	64.5	14.5	21	.56
Pain complaints	64.5	9.4	26.1	.61
Sleep well	12.3	15.9	71.7	.59
Has eaten as before	21	15.2	63.8	1.42
Saying that he would hurt himself	91.3	5.8	2.9	.11
Has there been aggressive behavior	67.4	9.4	23.2	.55
Self-care taken	8	16.7	75.4	1.67
Has he talked / asked about the situation - the virus - the pandemic	35.5	12.3	52.2	1.16
Has complied with the rules and prohibitions during this period	14.6	12.4	73	.58

As regards gender specificity male patients showed more fear, nervousness, aggression and talk/ask for pandemic situation; while female patients showed more good mood, good sleep, good appetite, took medication regularly, adhered to the rules / restrictions but showed even more suicidal ideation and complaints of pain. Mann-Whitney test revealed significant gender differences only for item of self-care scores ($Md_{females}=2, N=38; Md_{males}=2, N=100; Z=-2.374, p<.01$); whereas females showed higher mean ranks scores than males (Tab. 3).

TABLE 3 Mean scores and significance based on gender

Item response / Gender	Male		Female		<i>p</i>
	Mean	Std. Dev.	Mean	Std. Dev.	Sig.
Medicaments take regularly	1.74	0.59	1.89	0.38	.14
Has been in a good mood	1.35	0.73	1.47	0.68	.37
Fear presence	0.61	0.81	0.47	0.79	.30
Has been more nervous than before	0.63	0.84	0.39	0.71	.13
Pain complaints	0.54	0.84	0.82	0.92	.09
Sleep well	1.62	0.67	1.53	0.76	.54
Has eaten as before	1.38	0.83	1.55	0.76	.26
Saying that he would hurt himself	0.11	0.39	0.13	0.41	.65
Has there been aggressive behavior	0.63	0.87	0.37	0.75	.09
Self-care taken	1.60	0.66	1.87	0.41	.02
Has he talked / asked about the situation - the virus - the pandemic	1.17	0.93	1.16	0.91	.91
Has complied with the rules and prohibitions during this period	1.57	0.71	1.63	0.78	.31

As regards the urban-rural distinction, patients from urban areas reported more complaints of pain, and suicidal ideation. However they reported better sleeping and eating regimes and better care of themselves. Also they revealed increased interest and more talking about the pandemic situation and have respected the rules more. Patients from rural areas had higher levels of fear, nervousness, and aggression. Despite these findings they have been in a good mood and have taken medication more regularly than patients in urban areas. Despite these specifics Mann-Whitney test revealed no significant differences for all items of questionnaires, based on the urban-rural distinction (Tab. 4).

TABLE 4 Mean scores and significance based on residence

Item response / Residence	Urban		Rural		<i>p</i>
	Mean	Std. Dev.	Mean	Std. Dev.	Sig.
Medicaments take regularly	1.77	0.55	1.81	0.54	.47
Has been in a good mood	1.36	0.73	1.42	0.70	.62
Fear presence	0.54	0.77	0.61	0.86	.77

Has been more nervous than before	0.48	0.74	0.68	0.90	.26
Pain complaints	0.65	0.88	0.56	0.86	.49
Sleep well	1.64	0.69	1.53	0.71	.20
Has eaten as before	1.49	0.77	1.33	0.87	.30
Saying that he would hurt himself	0.17	0.49	0.04	0.18	.07
Has there been aggressive behavior	0.52	0.83	0.61	0.86	.45
Self-care taken	1.73	0.59	1.60	0.65	.14
Has he talked / asked about the situation - the virus - the pandemic	1.23	0.91	1.07	0.94	.31
Has complied with the rules and prohibitions during this period	1.65	0.67	1.48	0.80	.22

In terms of modality of data collection, i.e., face to face interview or phone call some specifics were also noted. Patients who were interviewed face-to-face admitted being more afraid, but also said that they slept well, ate well, had a good mood, took medication regularly, took better care for themselves and were also more compliant to rules / restrictions. Conversely, patients interviewed by telephone indicated that they had more nervousness, aggression, suicidal ideation and also talked / asked more about the pandemic situation. Mann-Whitney test revealed significant differences in responses only for two items based on the modality of data collection. The first difference was in self-care scores ($Md_{direct}=2$, $N=99$; $Md_{phone}=2$, $N=39$; $Z=-2.751$, $p<.00$); and the second for compliance with the rules / restrictions during the pandemic closure period scores ($Md_{direct}=2$, $N=98$; $Md_{phone}=2$, $N=39$; $Z=-2.221$, $p<.02$). Patients interviewed directly showed higher mean rank scores than those interviewed by phone in both cases (Tab. 5) .

TABLE 5 Mean scores and significance based on interview type

Item response / Interview type	Face-to-face		Phone call		<i>p</i>
	Mean	Std. Dev.	Mean	Std. Dev.	
Medicaments take regularly	1.79	0.54	1.77	0.58	.95
Has been in a good mood	1.40	0.71	1.33	0.73	.60
Fear presence	0.58	0.80	0.56	0.82	.91
Has been more nervous than before	0.55	0.81	0.62	0.84	.65
Pain complaints	0.62	0.87	0.62	0.87	.98
Sleep well	1.62	0.68	1.54	0.75	.62
Has eaten as before	1.51	0.74	1.23	0.95	.17

Saying that he would hurt himself	0.10	0.36	0.15	0.48	.66
Has there been aggressive behavior	0.48	0.80	0.74	0.93	.13
Self-care taken	1.76	0.55	1.46	0.72	.01
Has he talked / asked about the situation - the virus - the pandemic	1.10	0.95	1.33	0.83	.22
Has complied with the rules and prohibitions during this period	1.66	0.68	1.38	0.81	.03

As regards the data collection modality based on self versus caregiver report, results revealed higher mean scores in almost all items reported by the patients themselves as compared to those reported by Caregivers. Caregivers gave the highest average responses only to nervousness, pain complaints as well as suicidal tendencies. However, Mann-Whitney tests revealed significant differences based on whether the interview was done with patients or primary caregivers only for item of self-care scores ($Md_{patients}=2, N=91; Md_{caregivers}=2, N=47; Z=-2.864, p<.00$); Patient is interviewed they showed higher mean ranks scores than when caregiver was interviewed (Tab. 6).

TABLE 6 Mean scores and significance based on Interviewee

Item response / Interviewee	Patients		Caregivers		<i>p</i>
	Mean	Std. Dev.	Mean	Std. Dev.	
Medicaments take regularly	1.84	0.50	1.68	0.62	.63
Has been in a good mood	1.46	0.65	1.23	0.81	.14
Fear presence	0.59	0.81	0.53	0.80	.64
Has been more nervous than before	0.52	0.78	0.66	0.89	.43
Pain complaints	0.55	0.87	0.74	0.87	.12
Sleep well	1.64	0.67	1.51	0.74	.29
Has eaten as before	1.48	0.78	1.32	0.88	.33
Saying that he would hurt himself	0.10	0.33	0.15	0.51	.97
Has there been aggressive behavior	0.59	0.89	0.49	0.74	.78
Self-care taken	1.79	0.48	1.45	0.77	.00
Has he talked / asked about the situation - the virus - the pandemic	1.26	0.92	0.98	0.89	.07
Has complied with the rules and prohibitions during this period	1.66	0.68	1.43	0.80	.07

Finally, to assess any possible effect of age, on the results, Spearman's correlation analysis was also performed between the age variable and the respondents' answers to the questions. It turned out that none of the questions showed any significant relationship with the age variable (Tab. 7).

TABLE 7 Spearman's correlation analysis between age and item responses

Spearman's rho / Items responses	Age
Medicaments take regularly	-.106
Has been in a good mood	-.016
Fear presence	-.084
Has been more nervous than before	-.093
Pain complaints	.097
Sleep well	-.068
Has eaten as before	-.041
Saying that he would hurt himself	.150
Has there been aggressive behavior	-.064
Self-care taken	-.077
Has he talked / asked about the situation - the virus - the pandemic	.127
Has complied with the rules and prohibitions during this period	.076

Discussion

The present study aimed to understand how Covid-19 pandemic impacted patients with psychotic disorders in Prizren Mental Health Center. It is difficult to make comparisons and arrive at conclusions when we lack a basic previous assessment in similar settings and conditions.. However, findings indicating that 20%-25% of participants showed the presence of pronounced signs / symptoms, indicate that this group of patients was not severely affected. These results are in line with the studies of Hölzle et al, (2020) and Pinkham et al, (2020) who did not report a deterioration of the patients' basic condition and at least not anymore than other categories of mental disorders. Nor can we find in this sample evidence of worsening or new episodes of underlying disease predicted by studies according to which stress from the Covid-19 pandemic may trigger the manifestation of psychotic symptoms in patients with previous mental illnesses or that stress related to a pandemic may precipitate, exacerbate or impact the content of the psychotic symptoms (Gunnell et al, 2020; Sonderskov et al, 2020; Haider et al, 2020, Yao et al., 2020; Fischer et al. al., 2020; Sommer et al, 2020) (Li, 2020; Fischer et al 2020). However it must

be considered that the course of psychotic disorders is known for the stages of exacerbation which might occur. The finding that 84.8% of patients have taken medication regularly is very positive, particularly because non-adherence to prescription drug treatments is recognized as a worldwide problem and may be the most challenging aspect of treating patients with schizophrenia (WHO, 2003). For example, Dolder et al (2003) found that 12-month drug compliance ranged from 54 to 62%. This finding is also contrary to the emphasis of Sukut and Balik (2020) that patients with serious mental illness have difficulty maintaining their treatment. Results on the presence of fear and mood swings are also at low levels as compared to the results in the general population as reported in the literature. Nonetheless these findings should be carefully considered particularly as regards comparisons with studies from other countries (e.g., studies of Isaevoli et al, (2020) in Italy and González-Blanco et al (2020) in Spain) due to important differences the research design and the measuring instruments. Regarding the finding that 73% of the sample have adhered to protective anticovid measures, discrepancies are observed with other studies such as the review of Brown et al (2020) and Shinn and Viron (2020) reporting that patient adherence with protective measures was markedly more problematic in people with psychosis. Therefore it seems that present study reports a quite satisfactory level of compliance, which requires further understanding and investigation particularly as regards the understanding of positive reinforcers. Our findings by signs / symptoms can only be compared with a study found in 132 psychotic patients in India through telephone evaluation (Muruganandam et al, 2020). In almost all similar items our sample has lower results. So while in our study 6.5% did not take medication regularly in India it was 22%. Other similar measures compare between the two studies as follows: as aggression (23.2% vs 28%), intake food (21% vs 23%), fear / anxiety (20.3% vs 27%), sleep (12.3% vs 37.9%), self-care (8% vs 20%), thoughts of suicide (2.9% vs 14.4%).

That the pandemic did not greatly affect psychotic patients of this sample is also shown by the fact that only half of them (52.2%) discussed the situation with family members or other people around. This can be understood when we consider the limited level of awareness for the situation as a result of the disease from which they suffer. Maybe this is protective factor against Covid-9 pandemic stress. Moreover, the greater family support of patients, which characterizes the predominantly collective Kosovo society, might act as an additional protective factor to pandemic stress.

Limitations

Limitations of the present study include a relatively small sample size, proxy (caregiver) report, lack of control groups, and lack of a structured systematic

clinical assessment. These limitations though are quite common in research studies with clinical samples, or psychiatric patients (eg. see Muruganandam et al,2020) .

Conclusions

The present study concluded that only 20%-25% of patients with severe mental illness of the Mental Health Center showed signs of deterioration. Authors speculate that the greater family support of patients, which characterizes the predominantly collective Kosovo society, might act as an additional protective factor to pandemic stress. Despite the apparently optimistic findings, particularly as compared to research from other countries, it is still difficult to conclude exactly on the extent of their suffering. Further studies are needed to determine the level and modes of impact of Covid-19 on this vulnerable category of the population. Continuing to provide mental health services to people with serious mental illness should be a priority of the health system in Kosovo and elsewhere.

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