

# COVID-19: Its impact on a cohort of patients treated with clozapine

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## Introduction

- ❖ The unpredictability and the uncertainty of the COVID-19 pandemic; the associated lockdowns; social distancing; and other containment strategies as well as the resulting economic impact all pose a significant threat to individual and collective mental health. It is assumed that psychological morbidity will inevitably rise as a result of the COVID-19 crisis. [1]
- ❖ Individuals with pre-existing severe mental illness may be more vulnerable to the impact of the COVID-19 restrictions, particularly as reduced community supports may be available.

## Aims

1. Assess the levels of symptomatology in patients with pre-existing major mental illness attending secondary mental health services for clozapine treatment, during the COVID-19 pandemic.
2. Analyse free-text responses from patients to gain an understanding of their subjective experiences of the impact of COVID-19 on their mental health and social functioning.



## Methods

- ❖ A cross-sectional single-centre study. All eligible patients attending the adult West Galway Mental Health services for clozapine treatment were invited to participate.
- ❖ Demographic and clinical data of participants are demonstrated in Table 1.

Table 1. Demographic & Clinical Data	n (%) / Mean (SD)
Gender	
Male	44 (69.8)
Female	19 (30.2)
Age (years)	44.7 (10.6)
Primary Diagnosis	
Treatment-resistant Schizophrenia	59 (93.7)
Other psychotic disorders	4 (6.3)
Duration of clozapine treatment (years)	11.6 (6.9)
Current smoking status	
Yes	26 (41.3)
No	37 (58.7)

- ❖ Beck Anxiety Inventory (BAI) and Hamilton Anxiety Rating Scale (HARS)
- ❖ 5-item questionnaire using 10-point Likert scales (0= no change, 10= severe effect) to probe patients' views on the impact of the COVID-19 pandemic and associated restrictions on anxiety, mood, quality of life, social and vocational functioning was obtained, along with a free-comments section.
- ❖ Statistics were provided utilising descriptive analyses through SPSS (26.0). Statistical significance was set at  $p < 0.05$  and all tests were two-tailed. Free-text data were open-coded and grouped into themes by consensus of the researcher.
- ❖ Ethical approval from the Galway University Hospitals Research Ethics Committee

## Results

- ❖ Likert scale data demonstrated low levels of symptomatology and impairment in the context of COVID-19, as displayed in Table 2.
- ❖ The BAI and HARS scales showed very low levels of anxiety. Median BAI score was 4.0 (min=0, max=30, IQR=10) and the median HARS anxiety score was 1.0 (min=0, max=4, IQR=1).
- ❖ Moderate-high levels of agreement between the Likert scales and the validated tools evaluated by spearman's correlation; Likert anxiety with HARS ( $\rho = 0.56$ ,  $p < 0.001$ ) and BAI ( $\rho = 0.56$ ,  $p < 0.001$ ).

Table 2. Likert Scale Data

Symptom	Median	Minimum / maximum	Interquartile range (IQR)
Anxiety Levels	3.0	0 / 10	6
Mood Symptoms	2.0	0 / 10	5
Functioning: social	3.0	0 / 10	6
Functioning: occupational	0.0	0 / 10	5
Quality of Life	3.0	0 / 10	5

- ❖ A positive correlation was found between higher anxiety levels and longer duration of clozapine treatment ( $\rho = 0.36$ ,  $p = 0.004$ ) as shown in Figure 2, in addition to higher age groups ( $\rho = 0.33$ ,  $p = 0.008$ ).

Figure 1. Themes emanating from free-text responses

- ❖ Fifty-five (87.3%) participants provided a comment regarding their experiences during the COVID-19 pandemic, with responses grouped according to common themes, illustrated in Figure 1.

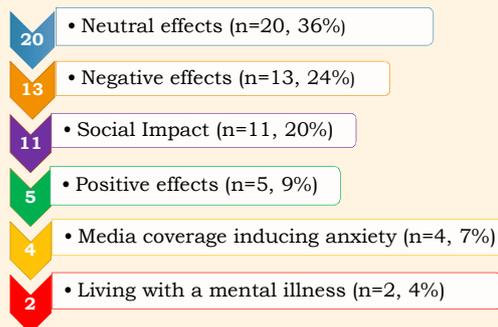
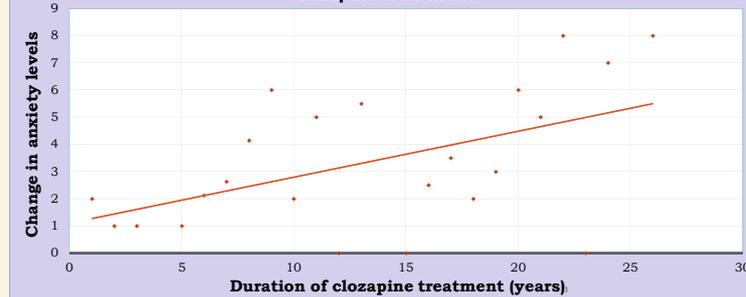


Figure 2. Change in anxiety levels associated with duration of clozapine treatment



## Discussion & Conclusions

- ❖ This study has highlighted variations in how individuals are responding and coping during the COVID-19 pandemic. These patients, attending the secondary mental health services for clozapine treatment, experienced quite low impairment or illness destabilisation in the context of COVID-19. When compared to published findings, the results of this study showed much lower anxiety levels measured using BAI and HARS scores. [2, 3] As displayed in figure 2, positive correlations became evident, it is possible that those who were older and longer on clozapine represented a more dependent subgroup who needed support from services, such as the day centres, that were curtailed in the pandemic.
- ❖ The qualitative data allowed a deeper evaluation, with many patients describing social isolation and loss of usual activities (e.g. training centre/group meetings) and the negative impact on their mental health. Others highlighted the distress caused by the relentless media coverage. Interestingly, the majority of the comments were neutral, finding no difficulty with the restrictions. It may be that COVID-19 and lockdown was of only minor significance compared to the challenges these patients face on a day-to-day basis.
- ❖ Perhaps, COVID-19 as a "shared trauma" may prompt the wider society to reflect, develop a greater empathy and understanding of how it may feel to live each day with a mental illness. The COVID-19 crisis significantly threatens our basic human need for human connection, which might serve as a crucial environmental factor that could underlie the overall insult to mental health.[4]

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## References

1. Maunder R, Leszcz M, Savage D, Adam M, Peladeau N, Romano D et al. Applying the Lessons of SARS to Pandemic Influenza. Canadian Journal of Public Health. 2008;99(6):486-488.
2. Vrbova K, Prasko J, Ociskova M, Holubova M. Comorbidity of schizophrenia and social phobia & impact on quality of life, hope, and personality traits: a cross sectional study. Neuropsychiatric Disease and Treatment. 2017;Volume 13:2073-2083.
3. Oh H, Park K, Yoon S, Kim Y, Lee S, Choi Y et al. Clinical Utility of Beck Anxiety Inventory in Clinical and Nonclinical Korean Samples. Frontiers in Psychiatry. 2018;9.
4. Hagerty S, Williams L. The impact of COVID-19 on mental health: The interactive roles of brain biotypes and human connection. Brain, Behavior, & Immunity - Health. 2020;5:100078.