

IMPACT OF NEGATIVE SYMPTOMS ON HEALTH-RELATED QUALITY OF LIFE IN SCHIZOPHRENIA

Authors: Yanhui Li^a, Gurpreet Rekhi^b, Mei San Ang^b, Jimmy Lee^{b,c,d}

a East Region, Institute of Mental Health, Singapore

b Research Division, Institute of Mental Health, Singapore

c North Region & Department of Psychosis, Institute of Mental Health, Singapore

d Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

ABSTRACT

Background: Health-related Quality of Life (HRQoL) is an important outcome in the management of schizophrenia. Although there are studies on how negative symptoms (NS) affect HRQoL, evidence regarding NS domains is limited and no prior study has looked into contributions of NS subdomains on HRQoL. Previous research showed a significant negative association between the Motivation and Pleasure (MAP) domain and HRQoL. In this study, we examined the association between NS, its domains and subdomains on HRQoL in schizophrenia. We hypothesized higher severity of NS, in particular MAP, to be associated with a lower HRQoL.

Materials and Methods: Two-hundred and seventy-four individuals with schizophrenia were assessed on the Positive and Negative Syndrome Scale (PANSS) and Brief Negative Symptom Scale (BNSS). PANSS scores were used to derive EuroQol five-dimensional (EQ-5D-5L) utility scores as a measure of HRQoL, via an algorithm previously validated in Singapore. A five factor hierarchical model of BNSS was used for this study, in which Anhedonia, Asociality and Avolition belonged to the Motivation and Pleasure (MAP) domain while Blunted Affect and Alogia belonged to the Emotional Expressivity (EE) domain of NS. Negative symptom remission (NSR) was assessed using the scores on the BNSS five subdomains. Association between EQ-5D-5L and BNSS was examined with EQ-5D-5L as the dependent variable and BNSS Total, MAP and EE, BNSS five domains and NSR as independent variables in four multiple regression models, after controlling for depressive symptoms and other covariates.

Results: Lower scores on BNSS total ($\beta=-0.116$, $t=-2.166$, $p=0.031$), BNSS MAP ($\beta=-0.128$, $t=-2.143$, $p=0.033$), and BNSS asociality ($\beta=-0.137$, $t=-2.196$, $p=0.029$) were found to be significantly associated with higher EQ-5D-5L scores. Individuals in NSR were more likely to have higher EQ-5D-5L scores ($M=0.82$, $SD=0.09$) than those not in remission ($M=0.77$, $SD=0.10$; $\beta=0.126$, $t=2.341$, $p=0.020$). Age ($\beta=-0.341$, $t=-6.076$, $p<0.001$), age at onset of psychotic symptoms ($\beta=0.113$, $t=2.041$, $p=0.042$) and severity of depressive symptoms ($\beta=-0.500$, $t=-9.800$, $p<0.001$) were also significantly associated with HRQoL.

Discussion:

As hypothesized, our study showed that a higher severity of negative symptoms, particularly MAP and asociality, was significantly associated with a lower HRQoL in schizophrenia, after controlling for covariates. Those in NSR had a higher HRQoL than those not in NSR. This is consistent with previous studies which found SQoL in schizophrenia to be primarily related to experiential deficits, as opposed to expressive deficits. MAP was also previously reported to have a stronger association with QoL as compared to EE. No previous studies have looked at the impact of asociality on HRQoL in schizophrenia, but a better social network was previously found to be associated with higher SQoL in schizophrenia. We postulate that asociality is associated with reduced protective effect of social factors against other factors such as psychopathological factors and their resulting distress, resulting in lower HRQoL.

Conclusion:

To our knowledge, this is the first study to examine the associations between the five subdomains of negative symptoms and HRQoL in schizophrenia. This study emphasizes the importance of addressing negative symptoms, in both research and clinical therapeutics, to improve outcomes in schizophrenia.