



times increased risk of dying from cardiovascular disease, 2 to 6 times more likely to die from respiratory disease, and an increased risk of chronic viral infections such as HIV and hepatitis C. Patient, medication, and healthcare system factors influence the morbidity and mortality of people with severe mental illness. Stigma and discrimination by healthcare workers is a key contributing factor. We conducted this novel study in the Seychelles Islands with the aim of assessing the attitude and mental health knowledge of general practitioners and nurses towards severe mental illness in all 16 government primary healthcare facilities. We also aimed to explore the association of attitude and knowledge variables with socio-demographic characteristics and compare the attitude and knowledge between the two groups. We hypothesized that the greater the knowledge and understanding of severe mental illness the more positive and supportive the attitude would be.

Methods: A probability-stratified sampling technique was utilised to recruit 42 doctors and 97 nurses. The exposure variables were the sociodemographic characteristics. The outcome variables were attitude which was measured using the Mental Illness: Clinician's Attitude Scale (MICA) and knowledge which was measured using the Mental Knowledge Schedule (MAKS). Chi-square test was used to examine the association between the sociodemographic characteristics with the attitude and knowledge variables. The threshold of significance was set at $p < 0.05$.

Results: 24 doctors and 64 nurses participated in the study with a response rate of 57.1% and 66% respectively. 66.7% ($n=16$) of the doctors were expatriates and 93.8% ($n=64$) of nurses were Seychellois ($n=64$, 93.8%). 54.69% ($n=35$) of the nurses had high knowledge and 58% ($n=14$) of the doctors had positive attitude. Male practitioners were more inclined to have a better knowledge of mental health. Doctors with postgraduate qualification had more positive mental health attitude. No statistically significant association was found between attitude and mental health knowledge in the participants.

Conclusion: The study has shown that half of the primary health workers had inadequate mental health knowledge and half of them had negative mental health attitude. Primary health workers lack training in the area of mental health. The key intervention is training in mental health. Additionally, recommendation may be made to revise the orientation programme for doctors and nurses entering the healthcare system in Seychelles.

Abstracts were reviewed by the RCPsych Academic Faculty rather than by the standard *BJPsych Open* peer review process and should not be quoted as peer-reviewed by *BJPsych Open* in any subsequent publication.

Tobacco Use in Schizophrenia: A Literature Review

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Aims: Schizophrenia is a mental illness with chronic course and varied outcomes, characterized by positive, negative, affective and cognitive symptoms along with aggression. Tobacco use is notably more prevalent in individuals with schizophrenia, often accompanied by severe dependence, compared with the general population. This literature review aims to explore the neurobiological mechanisms underlying tobacco use in schizophrenia, as well as potential treatment options and their associated benefits to the individual.

Methods: A comprehensive search was conducted on PubMed using the keywords “Tobacco use” and “Schizophrenia”.

Information from Free Full-text articles, including systematic reviews, meta-analyses, clinical trials, randomized controlled trials, review articles and books and documents published within the last 10 years were included, and studies published in languages other than English were excluded.

Results: The prevalence of tobacco use in patients with schizophrenia is 45–88% compared with less than 16% of general population. Nicotine acts via Nicotinic Acetylcholine Receptors (nAChRs) modulating the release of neurotransmitters. It helps improve the connectivity between salience network and other brain regions such as ventrolateral prefrontal cortex and superior parietal lobule, amongst others, which are deficient in schizophrenia.

The self-medication hypothesis suggests that tobacco reduces cognitive deficits. It also reduces extrapyramidal symptoms by inducing cytochrome P450 1A2, interacting with nAChRs in the ventral tegmental area, and inhibiting monoamine oxidase enzymes, which helps counteract dopamine reduction caused by antipsychotics.

The addiction vulnerability hypothesis suggests that genetic, neurobiological, and environmental factors in schizophrenia also increase susceptibility to tobacco use. Animal model studies also suggest that developmental limbic abnormalities which are seen in schizophrenia could also alter behaviour associated with drug use.

From a prognostic point of view, tobacco use in schizophrenia significantly increases the risk of cardiovascular diseases, shortening lifespan by up to 25 years, and raises the likelihood of metabolic syndrome. Pharmacotherapies like varenicline, bupropion (sustained release), nicotine replacement therapies (NRT), and combinations of bupropion and NRT have shown some success. Electronic cigarettes, along with psychological approaches like Acceptance and Commitment Therapy, Mindfulness, and Contingency Management (both digital and in-person), show promise. Neuromodulation via transcranial magnetic stimulation has shown some promise with limited results.

Conclusion: It is seen that tobacco use in schizophrenia is influenced by genetic, neurobiological, and cognitive factors, with nicotine causing long-term health risks and decreased effectiveness of treatment, hence proper understanding is essential for adequate patient care.

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Epigenomics and Schizophrenia: A Literature Review

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Aims: Schizophrenia is a severe mental illness, characterized by positive, negative, cognitive, affective symptoms with aggression, marked by disrupted structural and functional brain connectivity, as evidenced by neuroimaging, neurophysiological and neuropathological studies. Recent epigenetic research highlights the role of deoxyribonucleic acid (DNA) methylation, histone modifications, and non-coding ribonucleic acid (RNA) amongst others in mediating both genetic predisposition and environmental influences on gene expression as seen in schizophrenia.

Methods: A comprehensive search was conducted on PubMed using the keywords “schizophrenia” and “epigenomics”. Information from