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Quality of Life in Patients with Schizophrenia Disorder Exhibiting Manifestations in Oral Cavity During Severe Acute Respiratory Syndrome, Corona Virus Disease 19 and Omicron Pandemic Era: An Original Research

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Abstract

Poor oral hygiene status is witnessed in patients with schizophrenia disorder. Daily routine lifestyle of the patient is affected due to schizophrenia. These studies focus on the patients with schizophrenia disorders during the severe acute respiratory syndrome, corona virus disease-19, omicron pandemic particularly in relation to the oral health. This systematic review is based on PRISMA guidelines. Studies focusing on patients with schizophrenia disorder in relation to oral health were described. Personal factors such as resilience, sense of coherence, hope, self-esteem and self-determination were considered among the 10 studies included. Peer review and rehabilitation programmes which are the part of environmental factors are also considered. Among all the factors which was most influential was dental stress pertaining to schizophrenia patients. Oral health of schizophrenia patients is highly influenced by the coping strategies. Future research should focus on translation process pertaining to oral health and environment in patients with schizophrenia.

INTRODUCTION

Routine life expectancy of patients with schizophrenia is 20% less than that of the general population. Oral and maxillofacial disorders, endocrine pathology, infectious diseases, neoplastic conditions, respiratory disorders, gastro intestinal upset and cardiovascular pathologies may be witnessed in these patients. Global population about 0.7-1% accounts to schizophrenia. Gain of weight, disturbances to the metabolic system and poor oral hygiene status are the main side effects from psychiatric medications^[1-5]. Moreover, the side effects also include dry mouth in case of anti-psychotics whereas clozapine induces increased salivary secretion which is also common first generation anti-psychotics, increased smoking habits, carbohydrate rich diet and also illicit use of alcohol and drugs. Dental treatments in such patients is really challenging because these patients develop hallucinations and delusions which are triggered by stress and anti-psychotic drugs in order to avoid stressful and aversive stimulations. The individual's ability to cop-up with the situation determines the impact of stress. Main obstacles in case of learning new strategies which might lead to improvised health includes personality disorder, dysfunctional self-esteem and social life ultimately leading to isolation and victimization^[6-10].

Aims and Objectives: The main aim of the study is to explore the strategies which may help in coping in patients with schizophrenia disorders pertaining to oral health and quality of life.

MATERIALS AND METHODS

This systematic review entirely depends on the PRISMA guidelines. PRISMA stands for Preferred Reporting Items for Systematic Reviews and Meta-Analyses. Inclusion criteria involve cross-sectional, longitudinal, qualitative and quantitative studies. Exclusion criteria involve editorials and conference abstracts. A detailed search was done using databases such as pubmed, scopus and cochrane library. The search terms were Oral, dental health, quality of life, psychiatry, schizophrenia, maxillofacial, hygiene, stress and psychology. Importance was given to full studies pertaining to the topic involved.

RESULTS AND DISCUSSIONS

The basic search included 50 studies which led to narrowing down to 20 studies, entirely based on inclusion and exclusion criteria and finally ending up in 10 studies to be included in systematic review.

Characteristics of Included studies: All the 10 articles, the qualitative studies are written in English. These

studies were conducted in many countries like France(n = 3), India(n = 1), Canada(n = 1), China(n = 1), Thailand(n = 1), Malaysia(n = 1), Romania(n = 1) and Syria(n = 1).

The main domains are coherence, personal responsibility, religion, socialism, peer group, spirituality, self-confidence, stress, stigma, self-determination, hope, resilience and neuropsychology. Future research has to be done on areas like neuropsychological functioning with interlinked to coping strategies in patients with schizophrenia pertaining to oral health. There is an important relation between coping strategies and neuropsychology which might result in flexible adaptive mannerism. The main determinants for a person with schizophrenia to cop-up with the stress are problem solving skills, ability to access stored knowledge, strategies, planning and abstractive thinking. Emotionally focussed coping style is much more important traditional feature in healthy population^[21-25]. Resilience is an important factor which plays a vital role in relationship between adaptive strategies and adverse events in relation to positive oral health. There is a direct proportional relation between sense of coherence and mental health, whereas indirect proportional relation between sense of coherence and physical health. Excellent oral health, related quality of life and decreased incidents of oral health problems are witnessed in patients with strong to moderate sense of coherence. Hope is defined as an expectation of a positive welcome and achievements

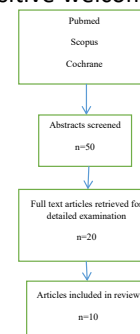


Fig.1: Prisma flowchart of the identification process of included studies

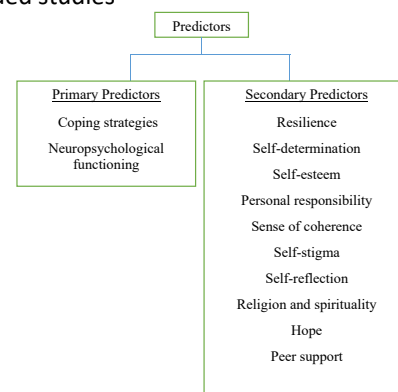


Fig.2: Primary Predictors and Secondary Predictors

Table 1: Factor's influencing coping strategies

Author	Year	Country	Description
Frederic Denis <i>et al.</i>	2020	France	Compared with the general population, PWS were less likely to have had tooth scaling and dental treatment but more likely to have undergone dental extraction.
Francesca Siu Paredes <i>et al.</i>	2019	France	This review suggests that coping strategies play a role in the recovery process for oral health of PWS. crucial Translation processes in oral health should be more explored in the future to clarify the capacity of PWS to cope with essential self-care in oral health on daily life.
Mi Yang <i>et al.</i>	2018	China	Our systematic review suggests that patients with schizophrenia have worse oral health than the general population but have received less dental care services. Hence, the oral health services should be taken into account in the patients with schizophrenia.
Sathaka Thatreenaranon		Thailand	Dental staff should work together with psychiatrists, nurses and care givers to follow patients having the risk factors and provide appropriate dental treatment plan as well as preventive dental care.
Frederic Denis <i>et al.</i>	2017	France	For these fragile patients with specific needs, simple measures can be implemented to improve their oral health. Better taken into account, the oral health of these patients should contribute to the overall improvement of quality of life and to the general health of these subjects.
Swati Gupta <i>et al.</i>	2016	China	Some of the clinical features of this illness are not evident and the therefore the dental practitioner must understand more common presentations and management considering that poor dental condition in schizophrenics may be associated with an increased risk of systemic comorbidity as well. Physicians have to work in coordination with dental practitioners to maintain good oral health.
Mang Chek Wey <i>et al.</i>	2015	Malaysia	Therefore, knowledge and awareness of different aspects of this disease will help dental professionals in diagnosis and planning of better treatment strategies for this specific population. Dental disease in people with schizophrenia deserves the same attention as other comorbid physical illness. The disparity in oral health is most marked for dental decay. Possible interventions include oral health assessments using standard checklists designed for non-dental personnel, help with oral hygiene, management of iatrogenic dry mouth and early dental referral.
Andreea-Silvana Szalontay <i>et al.</i>	2021	Romania	This study helped us understand that various factors influence oral health in people diagnosed with schizophrenia. First of all, this disorder causes functional disability, so without a special program that helps them integrate into society, most of the patients are unemployed, so they don't have the financial support in order to go to the dentist's office for regular check-ups. Also, patients with this disorder are often suspicious and paranoid and their lack of trust stands in the way of them going to the doctor and have access to the dental care they need. Also, the disinterest regarding oral hygiene, along with the harmful behaviour like smoking or drinking alcohol helps with the accumulation of bacteria and formation of tartar, process that is aided by xerostomia and hyposalivation. The cognitive impairment makes it difficult for them to recognize the severity of dental problems. Also, the attention deficit makes it harder for them to follow the doctor's indication during the consultation and the excessive gesturing makes the examination long and uncomfortable for the patient. Thus, it is important for the dentist to know what to expect from a patient with this disorder, to talk to them and make them feel safe and unjudged because communication will help increase the compliance of the patients suffering from schizophrenia.
Bahaa Aldin Alhaffar <i>et al</i>	2018	Syria	This study presents the general oral condition of the psychiatric patients. Those patients had higher rates of decayed, missed or filled teeth than general population and higher rate of gingivitis (GI) and plaque (PI). A significant relation was found between total DMFT score and gender. Also, positive correlation was found between the total DMFT score and number of medications taken by the patients. No significant relation was found between total DMFT and medication type and duration of in taking psycho tropic medications or type of mental disorder.
Dennis Frederic <i>et al.</i>	2016	France	The psychometric validation of the SOHP scale, involving a large PWS sample of PWS, is currently in progress. The SOHP is important to evaluate oral health needs and to offer appropriate strategies to improve oral health of these persons ^[11-20] .

and goals of people's own efforts. The main paradigm of hope includes cognition, motivation, behaviour and emotion. There is inter-link between self-determination, hope, self-stigma, sense of personal responsibility and depression in patients with schizophrenia. There should not be social inclusion, exclusion and discrimination in relation to oral health care in patients with schizophrenia. Exercise might control the influence the risk of the disease even in the presence of high stress and can play a major role as a productive factor. In schizophrenia, the main key factor is powerlessness. This powerlessness can be overcome

by decision making, motivation, self-responsibility, coping strategy and emotional well-being which are all the features of empowerment^[26-30]. The relationship between oral and systemic health is very much important because if oral health is not maintained, it may affect the patient's quality of life and psychological insight resulting in loss of functions, aesthetics, self-esteem and self-confidence. Patients with schizophrenia can have the ability to cop-up with the stress by two kinds of evaluations such as threat and challenges which are the successors of nature and degree of risk^[31-35]. The primary predictors of stress are

coping mannerism and neuropsychological function whereas the secondary predictors are emotion, resilience self-esteem, social support and self-efficacy. In order to maintain resilience, coping building, social support or peer supports depends entirely on a see through network without discrimination and excellent social interaction. In such stressful situations, we can help out the people by encouraging and supporting. Patients get benefitted and lead a better quality of life when joining a peer group rather than isolation. Negative aspects of stress can also be prevented with the help of religion and spirituality^[36-40].

Predictors

The aim of this review is to determine the strategies used for coping in patients with schizophrenia pertaining to oral health there by improving their quality of life. There is a strong relationship between dental health behaviour and psychology, symptomatology, self-determination, resilience, sense of coherence, neuropsychological functions, self-esteem and self-stigma. Poor dental environment can be overcome by using peer support and rehabilitation programmes^[41-45]. Main important factor to cope with the oral health problems for a patient with psychiatry disorder is the coping strategies. Coping strategies refers to efforts which are done in a conscious manner to solve problems and fulfil daily life needs. Subjective coping strategies refer to self-esteem and hopelessness whereas objective coping strategies refer to symptom severity. In case of increased stress, concentration, effective coping strategy depends on independent decision making, motivation and emotional well-being. Till date, there is a scarcity of literature among the scientific community pertaining to quality of life in schizophrenia patients focussing on the oral health care^[46-50]. Usually, patients with schizophrenia have negligence over their self-care both physical and oral, hygiene, cleanliness, lifestyle, dietary habits, use of psycho active substances, etc. Sufficient care can be provided to the patients with schizophrenia by clearing the obstacles which are the mental illness fear and deficient training, difficult in gaining access to private practice, cost and environment. Promotional oral health in patients with schizophrenia can be done via social support group or peer group and learning programmes^[51-55]. Motivational programmes focus on self-stimulation, better dental hygiene, clock index scores and oral prophylaxis which include the most important factors like tooth brushing and mouth washing^[56-59].

CONCLUSIONS

This is the first and foremost study which explains the quality of life in patients with schizophrenia pertaining to oral health. Our study highlighted the coping strategies which are the most important

primary indicators to deal with the stressful conditions. This may ultimately result in good quality of life thereby fulfilling the daily needs of the patients. Moreover, oral health programmes can be done in the multi scale or large scale priorities to focus on oral and maxillofacial pathologies as well.

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