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Environmental Risk Factors of Psychosis: A Review

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ABSTRACT

Psychosis is a severe mental health condition that can be debilitating for a person's well-being. It is characterized by disturbances in perception, emotional regulation and thought processes, including symptoms like hallucinations and delusions, leading to a disconnection from reality. Patients often suffer when trying to meet the demands of ordinary life. Genetic predisposition plays a significant role in development of psychosis. Besides these, there are also environmental influences, which contribute as a trigger and later progression of psychotic disorders. These external determinants could possibly be managed in attempts to contain the problem of increased mental health conditions with the main psychotic component. This article reviews the literature reports of current environmental risk factors of psychosis. The keyword used was "psychosis" searched alone or in combination with "risk factors", "environmental factors" or "external factors"

Keywords: psychosis, environmental factor, risk factors, schizophrenia, trauma.

Introduction

Patients suffering from psychotic disorders, including schizophrenia, schizoaffective disorder, and other mental illnesses with psychotic symptoms, impose a substantial burden on themself, their families and healthcare systems worldwide. The key point in leveraging prevention is identifying manageable causes of said mental health conditions with psychotic episodes. The main group of changeable variables is external influences - ranging from early-life adversities to substance use and urban living conditions - which have been implicated as potential

contributors [1]. Recognizing and understanding these risk factors is crucial for implementing preventive strategies and early interventions which would help alleviate hardships endured by patients and their surroundings.

Methods

A literature analysis was performed using the PubMed database. Publications from the last 20 years were included. The keyword used was "psychosis" searched alone or in combination with "risk factors", "environmental factors", "schizophrenia" or "external factors". Articles of various types were analysed. Only publications in English were used. Articles cited in the publication were selected by 6 independent researchers.

Results

Several environmental risk factors emerged as consistent predictors of psychosis susceptibility:

Urbancity

Studies indicate that individuals raised in highly urbanized environments could be at higher risk of developing psychotic disorders compared to others from rural areas. Key factors contributing to these findings have been suggested to be mainly heightened social stress and reduced social cohesion [2]. Other articles link environmental changes that happen because of human actions as potential determinants. The main association with mental health diseases has been proved to be exposure to heavy metals. Air pollution, which is an outcome of poorly controlled or developed urban areas, appears to be an influential point in schizophrenia [3]. Further investigation between particulate matter exposure and mental illnesses has not found significant evidence correlating psychotic syndromes or the development of psychosis with air polluted with particulate matter [4].

Childhood Trauma and Adverse Life Events

Traumatic experiences in early childhood - including physical, emotional, neglect and sexual abuse - are linked to the later development of cognitive difficulties in patients with psychosis related illnesses. Studies show lower scores in executive functioning tasks among individuals suffering from psychosis, even before the emergence of the disease. There is a possibility about life events having an impact on psychosis onset. Based on cognitive models of psychosis an exposure to threatening or intrusive events may shape interpretation of the social environment, potentially fostering hostile perceptions of the external world. Repeated exposure could progressively shift individuals along a spectrum from suspicion to paranoia and eventually to persecutory delusions. [5]

Migration and Social Discrimination

Studies show that ethnic minority individuals and those who migrated to new countries or communities face an elevated risk of schizophrenia and other psychotic disorders, even acknowledging a significant difference that refugees have even greater potential of developing mental conditions than non-refugeem [6]. Notably, this risk persists across second and third generations. Often, the leading cause is facing significant stress, discrimination and exclusion. Those stressors have been associated with increased susceptibility of psychotic symptoms and schizophrenia [7].

Cannabis Use and Substance Abuse

The psychoactive component of cannabis, tetrahydrocannabinol (THC), has been proven to disrupt cognitive function and be the triggering factor of psychotic episodes, particularly in genetically predispositioned individuals. There is a consistently supported link between early and heavy cannabis consumption, and an increased likelihood of psychosis. Use of high-potency cannabis proves to be a high predictor of psychotic disorder. Findings unanimously correlate use of high THC concentration cannabis having more damaging effects on mental health than the lower potency forms [8]. Evidence suggests that psychostimulants, like amphetamines and cocaine, occasional or chronic use may be a cause of psychosis. Stimulant use disorders are clearly more prevalent in patients suffering from psychotic mental illnesses, independent of sex or age. This type of substance affects a person's perception which may lead to suspicion in oneself, leading to potential onset of psychosis [9].

Peer Victimization and bullying

Youths which were victims of overall, as well as specific types of high level bullying, showed more aggravated psychotic experiences and negative affect when confronted with stress. The control group results presented no difference or even less intense negative affect with a similar level of stressor [10].

Even in adulthood, psychotic episodes could be a result of being subjected to bullying via an indirect pathway. Childhood harassment may have consequences in developmental impairment, such as disruption to the formation of neural networks and even altered inflammatory responses. Additionally, they may appear in childhood as motor and cognitive deficiencies, leading into the onset of psychosis [11].

Discussion

Environmental risk factors for psychosis are the main component of effective countermeasure strategies and public health interventions focused on preventing the onset of psychosis in people susceptible to mental diseases. Many different external predisposing factors have been found being connected with onset and progression of psychosis. Scientific findings press the issue on how important environmental determinants should be considered a public priority when preventing psychotic-related illnesses. Instead, the focus is concentrated mainly on treatment, even in patients who, with proper social prevention, could have been stopped before developing into a psychosis or other psychosis related conditions.

While significant progress regarding identifying environmental risk factors has been achieved, further studies are required to exhaustingly explore the possible mechanism by which these factors interact with each other and other non environmental determinants to precipitate psychotic symptoms. Longitudinal studies with larger sample sizes could help establish causality and refine intervention strategies [12].

Conclusion

This article highlights the significance of environmental determinants as core, controllable components in the etiology of psychosis. Addressing these factors through various initiatives, early interventions and support systems may help reduce the widespread burden of psychotic disorders. Future research should further explore these associations to develop effective preventive and therapeutic strategies.

Disclosures

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The authors report no conflict of interest.

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