Dietitians Australia

Nutrition Issues in Psychotic Disorders

Psychotic Disorders

"Psychosis" is an umbrella term used to describe a loss of touch with reality in some way, as well as disorganisation of thoughts and significant disturbances in thinking, perception, emotional response and behaviour.[1]

Key features of Psychosis[1]

- Delusion
- Hallucination
- Thought disorder

Broad categories of Psychotic Disorders[1]
Primary psychiatric disorders

Primary psychotic disorders

- Schizophrenia
- Schizophreniform Disorder
- Schizoaffective Disorder

Mood disorders with psychotic features

- Major depressive disorder
- Bipolar affective disorder

Medical disorders with psychotic features (e.g. cerebral lupus) Substance related disorders (e.g. "drug-induced psychosis")

Schizophrenia, the major focus of this resource, is a severe mental illness which tends to be chronic and relapsing, and may significantly impact on an individual's functioning. The Australian National Psychosis Survey[2] in 2010 estimated that 64,000 people in Australia aged 18 to 64 suffer from schizophrenia, contributing to almost half (47 percent) of all psychotic disorders diagnosed each year. Prevalence and incidence rates of schizophrenia are 4.5 per 1000 and 15.2 per 100,000 (per year) respectively.[2, 3] Despite schizophrenia being considered a low prevalence disorder, it is a substantial contributor to the global disease burden.[4] Schizophrenia contributes 13.4 million years of life lived with disability to the global burden of disease.[4]

Diagnosis of schizophrenia (DSM 5 Criteria)[1]

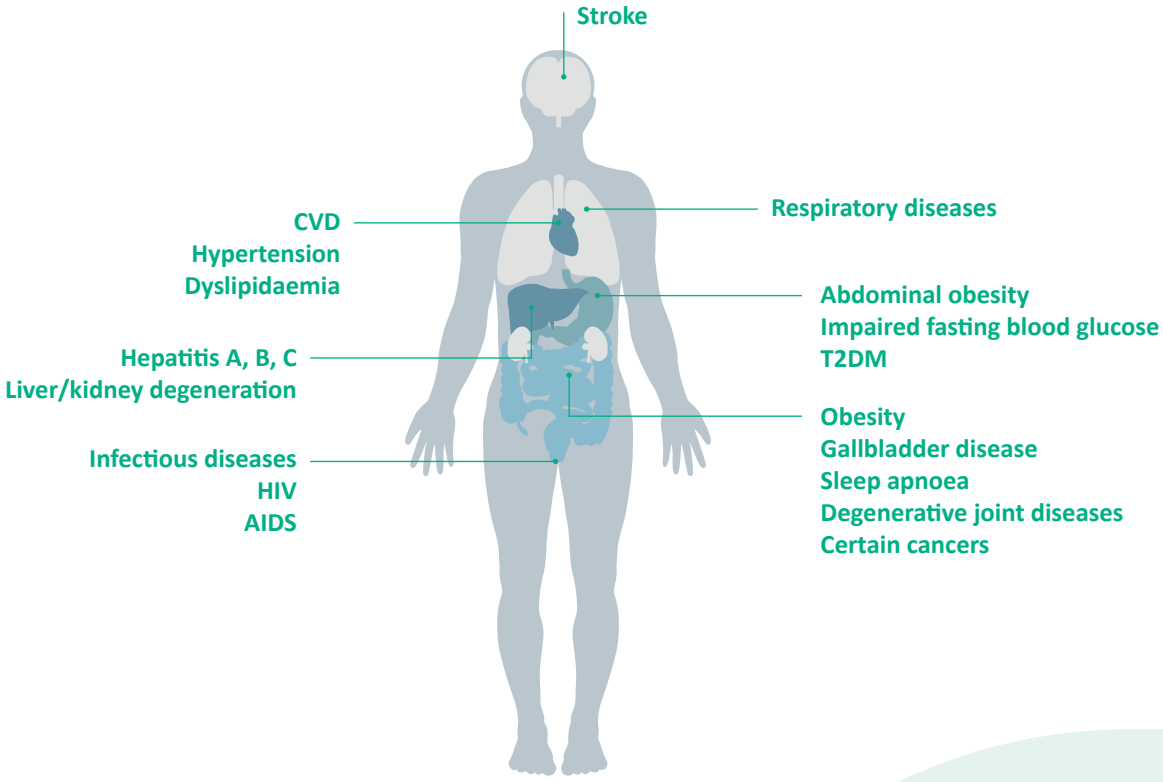
Diagnosis requires at least two or more of the following core symptoms during a one month period (less if successfully treated) and must include 1, 2 or 3, and be associated with a significant impairment in level of functioning (occupation, social, academic, or self-care e.g. adequate nutrition):

1. Delusions
2. Hallucinations (often auditory)
3. Disorganised speech
4. Grossly disorganised or catatonic behaviour (this may include childlike 'silliness' or unpredictable agitation)
5. Negative symptoms (such as blunted emotions, anhedonia and amotivation)

Addressing the Mortality Gap

People with schizophrenia die approximately 13 to 15 years earlier than the population average and this mortality gap is believed to be widening.[5-7] As of 2017 the average life expectancy for people with schizophrenia was 64.7 years, with 59.9 years for men and 67.6 years for women.[5] This mortality gap is attributable to adverse physical health, especially preventable, cardio metabolic risk factors leading to ischaemic heart disease, type 2 diabetes mellitus (T2DM), and chronic obstructive pulmonary disease,[8] as well as social determinants of health, poverty, access to appropriate care and decreased social connectedness.[7] Poor diet quality and excessive energy intake are leading risk factors for cardiometabolic disease.[8] Two thirds of excess death in schizophrenia, compared with the general population, are attributed to adverse physical health outcomes, with the contribution from higher suicide rates than the general population being less prominent.[9] Unnatural causes including suicide account for less than 15% of premature death.[4]

Physical health conditions contributing to premature death in people with schizophrenia[8, 10, 11] include:



Modifiable risk factors contributing to higher morbidity and mortality rates[8, 12-14] in people with schizophrenia:

- Higher smoking rates
- Diets higher in saturated fats, sodium, and sugar; and lower in fibre, fruit and vegetables, vitamin c and beta-carotene
- Obesity
- Alcohol abuse (excessive alcohol consumption)
- Poorer access to mental health services secondary to factors such as itinerant lifestyle, negative syndrome of schizophrenia e.g. amotivation, lack of motivation to shop, cook and prepare healthy meals, paranoid ideation, and disorganisation
- Poorer access to multi-disciplinary lifestyle interventions such as the gold standard Diabetes Prevention Program
- Food insecurity (socio-economic disadvantage, social isolation, marginalisation)
- Poor health literacy (lack of skills and knowledge for healthier food preparation)
- Lower levels of physical activity, sedentary lifestyle
- Impacts of medications, particularly 'atypical antipsychotics'
- Illicit substance use

'Atypical' antipsychotic agents and the metabolic syndrome

Second-generation antipsychotics (SGAs), also known as 'atypical' antipsychotics, are an important therapeutic option for those diagnosed with schizophrenia. There are notable metabolic side effects associated with SGA medications that include varying degrees of weight gain, dyslipidaemia and increased risk of developing T2DM.[10, 15-17] The Australian National Psychosis Survey[2] in 2010 estimated that nearly half of all people with psychotic disorders meet the criteria for metabolic syndrome (49.9 percent) and have a BMI in the obese range (45.1 percent). The mechanisms linking SGA medications to metabolic syndrome are not yet fully understood.[15, 16] It has been reported that drugs with high affinity to serotonin (5HT2c) and muscarinic receptors have the greatest risk for weight gain.[13] The key factors influencing these metabolic abnormalities and obesogenic outcomes is the effect of SGAs on dietary intake and eating behaviours.[13] People receiving SGAs report increased appetite, decreased satiety and increased cravings for sweet foods and beverages.[18] For further information, refer to MHANDi resource Nutrition Issues with Psychotropic Medications.

A key role for nutrition intervention

The growing evidence supports that implementing nutrition interventions for people living with severe mental illnesses, including schizophrenia, is a cornerstone of health outcome determination.[13] There is evidence to support early dietary intervention by a dietitian at the introduction of a medication (SGA) to mitigate disruptions in eating behaviour and associated adverse physical health outcomes.[9, 13] In particular, first episode psychosis has a 'critical period' for targeting lifestyle behaviour to prevent obesity and metabolic dysfunction occurring later in life.[19, 20] Therefore, the nutrition intervention must address the effects of antipsychotic medication on dietary intake and eating behaviours (increased appetite, decreased satiety and increased cravings for sweet foods and drinks) as well as the barriers of possible cognitive deficits, lack of motivation, poor memory and health literacy and food insecurity issues.[13]

Dietary treatment targets for interventions may include: reduction in excess energy intake by replacing sweet, energy dense, nutritionally poor convenience, 'discretionary' or take-away foods; improving vegetable and fruit intake; reducing or avoiding sugar sweetened beverages; label reading (especially sugar, saturated fat, sodium) to enable healthier packaged food choices in the supermarket; and developing simple cooking skills for healthier meal preparation.[13] Therefore, it is vital for people living with schizophrenia and other psychotic disorders to be able to access a dietitian as an ongoing part of multidisciplinary team care.[13] It is essential that metabolic monitoring and referral systems are in place for individuals with mental illness for early detection of physiological changes associated with poorer physical health.[21] Ongoing reviews with a dietitian will support sustainable lifestyle behaviour change, and may reduce the significant life expectancy gap.[13] In addition, the role of a dietitian in acute settings can also focus on addressing malnutrition or limited oral intake which can occur secondary to delusions, hallucinations, catatonic behaviour or negative symptoms. Hence a food service system which acknowledges and addresses the wide variety of nutritional implications of psychosis and antipsychotic medications is vital. Refer to MHANDi resource Food Service in Mental Health for more information.

Implications

1. All people living with a psychotic disorder such as schizophrenia should be routinely screened (every 3 to 6 months or when a new antipsychotic is initiated) and monitored for evidence of metabolic diseases and cardiovascular disease (weight, waist circumference, blood pressure, blood glucose levels, HbA1C, serum lipids).[21] Weight management is essential for those on SGAs.[21]
2. Modifiable risk factors such as excessive energy intake and poor diet quality (low intake fruit, vegetables, high intake of fast food or ultra-processed convenience foods and sugar sweetened beverages), needs to be addressed by a dietitian through an appropriate nutrition intervention as part of an integrated, collaborative multidisciplinary care team.
3. Nutrition intervention is a cornerstone of health outcome determination for people living with schizophrenia and other psychotic disorders. Nutrition care will help close the mortality gap by reducing modifiable risk factors and physical health disparities, particularly metabolic diseases and CVD in this vulnerable population.

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