Fruit and vegetable intake among psychiatric inpatients

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Introduction

Individuals with mental illness are at an increased risk of poor physical health (1).

Modifiable risk factors, including unhealthy dietary habits, contribute to this increased risk (2); it is therefore recommended that these risk factors are assessed as part of psychiatric patient care (3). The Cambridgeshire and Peterborough NHS Foundation Trust (CPFT) offers inpatients a Physical Health Check (PHC) within 7 days of admission.

This project investigated fruit and vegetable (FV) intake across diagnosis, among psychiatric inpatients admitted to CPFT psychiatric wards.

Methods

An anonymised search of de-identified patient records from the CPFT research database was conducted to locate data for patients aged 18+ with an ICD-10 psychiatric diagnosis, admitted between March 2013 and January 2019 inclusive, who had a completed PHC assessment.

Data was extracted on variables including ICD-10 diagnosis and FV intake, which is asked about as part of the PHC assessment.

FV intake between ICD-10 diagnostic categories was compared using a one-way ANOVA.

Results and conclusions

Data on FV intake from 768 patients showed that mean (standard deviation) FV intake across all diagnoses was 2.85 (1.85) FV portions/day. This is lower than the average FV intake among adults in the UK (3.7 portions/day) (4). Furthermore, Public Health England (PHE) recommends consuming at least 5 FV portions/day (5), which is roughly in line with WHO recommendations to consume 400g/day (5, 6). 583 patients (75.9%) reported consuming fewer than 5 FV portions/day.

Figure 1 shows mean (standard deviation) FV intake by diagnosis, in comparison with the UK average FV intake and PHE recommendations. Mean FV intake in patients with schizophrenia was 2.3 portions/day, lower than those with other psychosis (p=0.001), manic episode/bipolar disorder (p=0.026) and unipolar mood disorder (p=0.007) (figure 1). 86.5% of schizophrenia patients reported consuming fewer than 5 FV portions/day.

In summary, FV intake is low among CPFT psychiatric inpatients, compared to the general UK population and PHE recommended intake. FV intake is particularly low among patients with schizophrenia. There is potential for interventions to be trialed in the inpatient setting to improve FV intake.

Figure 1. Daily fruit and vegetable consumption by diagnosis (compared with UK average and Public Health England recommendations)

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In summary, FV intake is low among CPFT psychiatric inpatients, compared to the general UK population and PHE recommended intake. FV intake is particularly low among patients with schizophrenia. There is potential for interventions to be trialed in the inpatient setting to improve FV intake.