Letter to the Editor

Establishing a dedicated metabolic clinic for patients with chronic mental illness

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Various guidelines have been developed that place importance on regular metabolic monitoring in people with severe mental illness (SMI) (Kuipers *et al.* 2014; Shiers *et al.* 2015). The Irish national policy framework document 'A Vision for Change' (2006) acknowledges the presence of poorer physical health in people with SMI and makes a recommendation for all mental health service users to be registered with the general practitioners (GP) for physical health monitoring. It further states this role is generally in collaboration with local mental health teams.

In accordance with it, a specialist clinic was set up in day hospital of one community sector of Sligo/Leitrim Mental Health Services for patients with SMI taking psychotropic medications. A clinical proforma was designed that focussed on diagnosis/es, medications, mental state findings, past psychiatric history, cardiovascular and family history, diet, exercise, and smoking habits. Clinical examination was performed by the doctor in collaboration with CPN and included height, weight, waist circumference, pulse, BP, and ECG. Laboratory investigations among others included blood glucose and HbA1c. As per Saklayen (2018), three or more of the following five risk factors indicated metabolic syndrome: a) Waist circumference: male >102 cm female >88 cm b) triglycerides >1.7 mmol/l c) HDL cholesterol: male <40 mg/dl (1.03 mmol/l), female <50 mg/dl (1.29 mmol/l), d) blood pressure ≥130/ ≥85 mmHg, e) fasting glucose ≥110 mg/dl (6.1 mmol/l).

Several interventions were also offered including a) Adjustment in psychotropic medications if needed, b) Psychoeducation, c) Referral to occupational therapy if functional impairment, d) Referral for smoking sensation if they agreed and e) Inform the GP if new physical problems found for further assessment.

The clinic started in middle of the year 2016 and suspended at the beginning of 2020 because of COVID-19 restrictions. This letter aims to present data collected from this specialist clinic. Descriptive statistics are presented as counts and proportions for categorical variables and as means and standard deviations (SD) for continuous variables. IBM SPSS v25 softward was used for the analysis.

The distribution of main diagnoses of patients attending the clinic was: Schizophrenia, schizotypal and delusional disorders (F20–29) $n = 52$ (65%), Mood [affective] disorders (F30–F39) $n = 26$ (32.5%), others $n = 2$ (2.5%). In 44 attendees (55%), no previous diagnoses of physical illnesses were documented in the files. The rest had a range of one or multiple diagnoses mainly cardiovascular, COPD, diabetes mellitus, and osteoarthritis. The findings from the clinic are summarised in Table 1:

Abnormal BMI (>25 kg/m^2) was present in 59 patients (80%) (33 males, 26 females) when attending the clinic for first time. A high waist circumference was significantly more frequent in females ($x^2 = 10.98$, df:1, $p = 0.001$). Thirty-three (42.3%) patients had metabolic syndrome at first assessment while 45 (57.7%) did not, (two had missing data). During the assessments, 20 patients were newly diagnosed with physical problems: seven with hypertension, 6 with hyperlipidaemia, two with hypolipidemia and diabetes, 3 with left bundle branch block, 1 with diabetes, and 1 with prolonged QTc.

The results from the study show that this cohort of patients with SMI also have many and sometimes severe physical comorbidities which can go undetected and untreated (Nasrallah *et al.* 2006). This occurred for about one quarter of our sample and is a significant finding given the fact that average time of patients in service was 19 years. The emergence of new findings of hypertension, raised lipid profile and HbA1c indicate the importance of close liaison with GPs as endorsed in a survey by Bainbridge *et al.* (2011) in which highest percentage of GPs considered a combined approach most appropriate as it ensures an effective communication of abnormal findings between primary and secondary care for follow-up. It also allows a potentially valuable opportunity for early intervention to reduce the risk of developing cardiovascular disease and diabetes (Holt *et al.* 2010). A formal metabolic clinic improves adherence with the best practice guidelines as was endorsed in an Irish audit (Gallagher *et al.* 2013)

This pilot clinic had a reasonably good sample size and patients were followed up longitudinally over the course of clinic. During the time, simple interventions for physical issues have been done; this includes information and advice about lifestyle, referral for smoking cessation and most importantly communication to GPs for further investigations or treatment for the physical problems. We were successful in attracting a cohort of patients with chronic mental illness, some of whom had not attended for metabolic monitoring for some time, although some missed appointments

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Table 1. Demographic and metabolic findings of patients attending metabolic clinic

	$N = 80$
Gender	Females = 36, males = 44
Age at first contact	Mean = 54.9 (SD:13.81) [range = 27–85]
Years in service	Mean = 19.66 (SD: 11.54) median = 19 [range = 1–55]
BMI at first assessment	Mean = 30.38 (SD: 6.2) [range = 17.3–48.7] ($n = 73$, 7 missing)
↑ Waist circumference at first assessment (>102 cm in men and >88 cm in women)	44 (55%) (17 males and 27 females)
↑ BP at first assessment (systolic ≥130 and/or diastolic ≥85 mm)	42 (52.5%) (23 males and 19 females)
↑ QTc (>440 ms for males and >460 ms for females) in at least one assessment	25 (31%)
↑ Fasting glucose (≥110 mg/dl)	15 (19.2%)
↑ HbA1c (>42 mmol/mol)	14 (18%) (6 males and 8 females)
Metabolic syndrome at first assessment (three or more abnormal factors)	33 (42.3%)

occurred. We used a proforma that improved the consistency of recording observations. As the clinic was initiated in an informal manner, we did not impose formal inclusion and exclusion criteria in terms of duration of illness or duration of psychotropic use. This was instead based on clinical experience of team members working with the cohort in question over the years. So, although patients invited to the clinic were known to the service over the years, the date of diagnosis was not formally documented.

The results imply expansion of appointment time and increased nursing support. Establishing a metabolic clinic is feasible as it does not require extra resources rather better allocation of the already existing resources.

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