Metabolic monitoring in patients with severe mental illness; establishing a dedicated metabolic clinic in a catchment area of Sligo/Leitrim Metal Health Service

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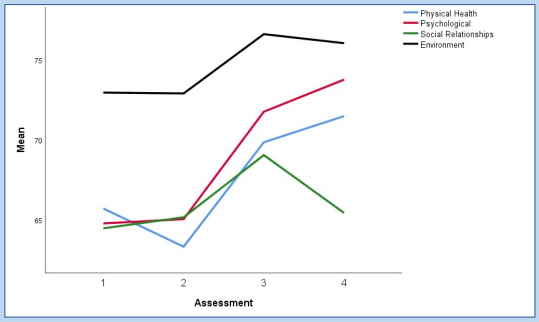
Introduction:

- Individuals with severe mental illness (SMI) have a life expectancy of 8-32 years shorter than the general population and have a 2-3-fold increased mortality, 60% of which can be attributed to physical illness (De Hert et al. 2011).
- A significant proportion of increased morbidity and mortality has been related to modifiable cardiovascular risk factors (De Hert et al. 2011 and Cunningham et al. 2018). These include sedentary lifestyle, increased smoking, genetic predisposition, unhealthy diets, and medication side effects (Peña et al. 2018). This implies that an early detection and intervention can help to improve expectancy and quality of life.
- Various guidelines have been developed that place importance on regular metabolic monitoring in people with SMI (ADA/APA 2004; Kuipers et al. 2014). '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.

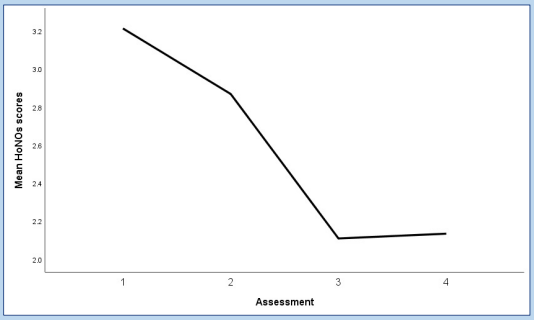
Methods:

- Patients with chronic mental illness were invited to attend the clinic.
- The following areas were examined: Personal and family history of cardiovascular disease, diet, exercise, smoking. Mental state examination, waist circumference, BP, pulse, ECG and BMI.
- Laboratory tests including U+E, LFTs, HbA1c, Lipid profile and other tests as appropriate such as serum lithium.
- AIMS scale, HoNOS and WHOQOL-BREF scales as additional indicators of global health.

Results



Trajectory of WHOQOL-BREF scores across the assessments



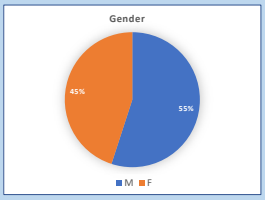
Trajectory of HoNOs scores across the assessments

GEE analyses have shown that the improvement was statistically significant only for the Psychological domain of the WHOQOL-BREF and the HoNOs and particularly at 3rd assessment compared to the first (beta estimate=4.64, Wald x^2=7.38, df:1, p=0.007, CI:1.3-8.1 and beta estimate= -.889, Wald x^2=4.08, df:1, p=0.043, CI: -1.752 to-.026) respectively.

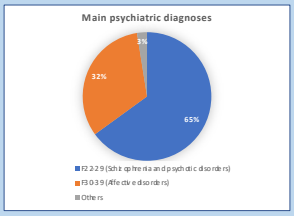
Definition of metabolic syndrome: (ATP III)

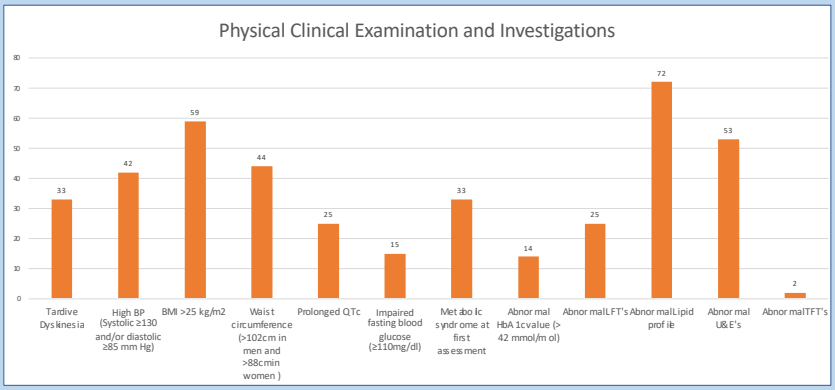
As per Saklayen (2018), three or more of the following five risk factors: a) Waist circumference: Male >102 cm female >88 cm b) triglycerides >1.7 mmol/L c) HDL cholesterol: male <40 mg/dL (1.03 mmol/L), female <50 mg/dL (1.29 mmol/L), d) Blood pressure ≥130/≥85 mmHg, e) Fasting glucose ≥110 mg/dL (6.1 mmol/L).

Results



- ✓ Number of attendees=80
- ✓ Mean age at 1st contact= 54.9 (SD:13.81)
- ✓ Mean years in service= 19.66 (SD: 11.54), median=19,
- ✓ No previous diagnoses of physical illnesses were documented in 55%





Discussion:

- ❖ The results from the study clearly show that this cohort of patients with severe mental illness 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.
- ❖ This newly established pilot clinic highlighted the presence of modifiable cardiovascular risk factors, some of them represented new diagnoses. This indicated the importance of close liaison with General Practice (Bainbridge et al.2011).
- ❖ Emergence of new findings of hypertension, raised lipid profile and HbA1c in a fraction of patients shows a potentially valuable opportunity for early intervention to reduce the risk of developing cardiovascular disease.
- ❖ The results showed a reasonably high QOL among this cohort of patients contrasting much of the current literature surveying QOL in similar populations. Among its four domains, social relationships scored the lowest. This may suggest a lack of socialisation associated with chronic mental illness and can be a potentially useful focus to improve the QOL.
- ❖ This pilot clinic had a reasonably good sample size and patients were followed up longitudinally over the course of clinic.
- ❖ 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 occurred.
- ❖ We used a proforma that improved the consistency of recording observations .
- ❖ We did not impose formal inclusion and exclusion criteria in terms of duration of illness or duration of psychotropic use.
- ❖ The results imply expansion of appointment time and increased nursing support.

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