Quality of life and moves over a year in a forensic in-patient setting-D FOREST study from Dundrum hospital.

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NFMHS National Forensic Mental Health Service

Introduction

Quality of life is an important therapeutic goal within secure forensic settings. The majority of patients are detained involuntarily, in what may be considered a restrictive environment, due to the serious nature of risks posed to themselves and to others. These patients often present with highly treatment resistant psychoses, often co-morbid with personality disorders and polysubstance misuse and this complexity can result in longer lengths of in-patient stay. Many patients admitted to secure forensic hospitals have experienced deprivation in the past , may have experienced early life trauma or abuse or may have a history of criminality in the community or prison settings. Quality of life in a safe, therapeutically secure hospital with policies in place to prevent bullying, intimidation and access to illicit substances is likely to be far superior to such settings, notwithstanding the limitations on liberty. It is vital that clinicians working in secure services do not neglect to consider quality of life for patients, just because their liberty is restricted under law.

The Central Mental Hospital , Dundrum is the only site for forensic in-patient treatment in the Republic of Ireland. It is divided into high, medium and low secure units, all on one hospital campus . On admission, patients are initially managed on units with a higher security, then move onwards to medium secure units and finally to low secure/pre-discharge units. Patients move through the well-defined stages of therapeutic security on recovery pathway as guided by their regularly monitored individual risk, recovery, symptoms and global functioning assessments.

Aim:

We aimed to establish whether moving from a higher secure setting to a lower secure setting on the recovery pathway was associated with an improvement in self-reported quality of life (QOL) in a forensic in-patient cohort.

The move from a higher secure unit to a lower secure unit is a significant progression on the recovery pathway, and is deemed significant by patients as well as treating team. We hypothesized that from patients' perspective it would be seen as an improvement in their reported Quality of life.

Methods

Study design

This is a naturalistic cross sectional observational study of a complete national cohort of forensic in-patients. The data was gathered at two time points, 12 months apart (Time point 1- December 2020 and Time point 2 – December 2021).

The data were analysed using paired sample t-tests, ANOVA and Kruskal-Wallis tests.

Setting

The study was conducted at Central Mental Hospital Dundrum Dublin, Ireland. The hospital represents a complete national cohort for a population of 5 million as it is the only site for forensic in-patient treatment in the country. We invited all the in-patients at Dundrum Hospital at time point 1- December 2020 and time point 2- December 2021 to participate regardless of their level of therapeutic security. Signed informed consent was taken from all the participants.

Variables

WHOQOL Bref is an internationally validated measure of Quality of life (QOL) using cross-sectional data obtained from a survey of adults carried out in 23 countries [n = 11,830]. It measures the salient QOL concepts for patients in a forensic setting and has been used to validate quality of life measures more specific to forensic population. It measures four domains: physical, psychological, social and environment. The total score on the four domains combined, represents overall QOL and is scaled in a positive direction (i.e., higher scores denote higher QOL), with scores ranging between 0 and 100.

Ethics approval

Ethical approval was granted by the National Forensic Mental Health Service Audit, Research and Ethics Committee, decision number: AUD/140220/MD.

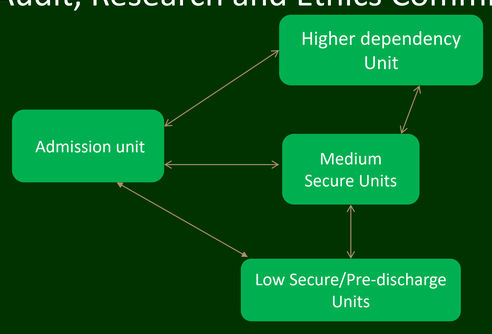

Figure 1. The Care-Recovery Pathway at Central Mental Hospital, Dundrum, Dublin, Ireland.

Results

A total of 74 patients completed the questionnaire at time point 1 (T1) and 45 at time point 2 (T2). 36 of the participants at T2 had also participated at T1. 27 remained at the same level of therapeutic security and 9 moved/progressed to a lesser secure ward. WHOQOL total scores improved over time, (paired T tests t=2.736, p=0.01) but was not significantly related to the move (binary logistic regression Wald X^2=3.1, d.f.=1, p=0.08).

At the time point 1 our sample comprised of 74 participants of which 69 were male and 5 were female patients with an average age of 45.6 years (S.D 11.5 years). The most common diagnosis was Schizophrenia (n= 51, 68%), followed by schizoaffective disorder (n=13, 17.4%) and autistic spectrum disorder (n=6, 3.6%).At the time point 2 our sample comprised of 40 male and 5 female patients with an average age of 45.6 years (S.D 11.5 years). The most common diagnosis was Schizophrenia (n= 34, 75%), followed by schizoaffective disorder (n=8, 18%) and autistic spectrum disorder (n=3, 7%).

Table 1: Difference in WHOQOL Bref scores between T1 and T2

Quality of Life	No move n=27	Positive Move n=9	ANOVA (F), p value
	Mean(S.D)	Mean(S.D)	
WHOQOL-Bref Physical Domain	0.92(2.71)	-0.22 (3.99)	F=0.947, p=0.337
WHOQOL-Bref Psychological Domain	0.89 (2.67)	0.11 (3.79)	F=0.483, p=0.501
WHOQOL-Bref Social Domain	0.70(2.07)	1.00 (2.18)	F=0.135, p=0.716
WHOQOL-Bref Environment Domain	1.41(4.63)	1.00 (3.97)	F=0.056 , p=0.815
WHOQOL-Bref Total score	3.93 (6.99)	1.89 (9.13)	F=0.492 , p= 0.488

Discussion

Secure forensic mental health services aim to achieve a better quality of life when patients move along the care-recovery pathway. As WHOQOL Bref measures QOL in four domains; physical, psychological, social and environment, one would expect an improvement in the environment domain of self reported QOL because the lower level of therapeutic security gives patients more access to leisure opportunities as well as a higher level of leave and a greater level of personal freedom .

From the results of this study , it was noted that patients see an overall improvement in their self reported Quality of life (QOL) over time but they did not report significant changes in their own Quality of life when they progress on the care pathway (Table 1). We find this finding unusual. This may be due to reduction in psychiatric symptoms and greater progress in recovery that they report better Quality of life over time. This maybe a sign of recovery that they feel better and report an over all improved picture of QOL. Patients wish to move forward across the care pathway but it was unclear why those who moved forward did not self report improved Quality of life. Possibly because the current hospital is an old Victorian style building constructed in 1850 and moves didn't provide a major change to patient's overall environment. It is possible that the results were confounded by the Covid 19 restrictions because the two time points were during the pandemic. Many face to face therapeutic interactions and outdoor and indoor ward activities were suspended because of Covid 19 related restrictions.

Future research will evaluate the changes in Quality of life as the hospital is in the process of relocation to the new campus with modern architecture design and state of the art building. It is important to evaluate the factors which might have played a positive role in achieving a better quality of life when patients move forward on the care/recovery pathway.

To the best of our knowledge this is the first study where correlation of moves through the therapeutic security pathway were compared with self report Quality of life over a year's period within secure forensic settings.

Conclusions

Quality of life appeared to improve over time. Patients self reported their own Quality of life better with time spent in secure hospital however moves within the hospital did not lead to significant improvement in the reported scores. Quality of life can, and should be maintained in secure hospital settings. Being in secure care should not be a barrier to achieving better quality of life.

References

1. O'Flynn P, O'Regan R, O'Reilly K, Kennedy HG. Predictors of quality of life among inpatients in forensic mental health: implications for occupational therapists. BMC psychiatry. 2018 Dec;18(1):1-1.
2. Kennedy HG, O'Reilly K, Davoren M, O'Flynn P, O'Sullivan OP. How to measure progress in forensic care. In Long-Term Forensic Psychiatric Care 2019 (pp. 103-121). Springer, Cham.
3. McCullough S, Stanley C, Smith H, Scott M, Karia M, Ndubuisi B, Ross CC, Bates R, Davoren M. Outcome measures of risk and recovery in Broadmoor High Secure Forensic Hospital: stratification of care pathways and moves to medium secure hospitals. BJPsych open. 2020 Jul;6(4).

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