TITLE:

Psychological interventions on a specialist Early Intervention Inpatient Unit: An opportunity to engage?

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ACCEPTED MANUSCRIPT. EARLY INTERVENTION IN PSYCHIATRY

Abstract

Aim

This study explored engagement with psychology on a specialist early intervention psychosis inpatient unit, with a focus on whether demographics or admission factors impacted on engagement.

Method

This was a retrospective cohort study using data extracted from patient notes for all service users who were admitted to an EI ward during a specified 6-month period. One hundred and one records were identified.

Results

Sixty-eight (67.3%) of the service users engaged in psychological therapy, 45.6% (n=47) attended psychology groups and 58.4% (n=59) engaged in individual psychology sessions. Service users admitted to the ward **voluntarily** were more likely to engage in individual psychology sessions in comparison to those admitted under section of the mental health act (β=-.270, p<.005). Length of admission predicted engagement with groups (β=0.38, p<.001) and individual psychology sessions (β=0.408, p<.001). Ethnicity, gender, and number of admissions did not predict engagement in psychology.

Conclusions

Psychological interventions are acceptable on a specialist early intervention psychosis inpatient ward and offer an opportunity to engage service users. Engagement was not predicted by demographic factors typically seen in community settings. Implications arising from these differences are discussed.

Keywords: Early intervention, psychosis, psychology, inpatient, engagement

Introduction

Psychosocial interventions in the early stages of psychosis have been demonstrated as having beneficial outcomes. [1] Cognitive Behavioural Therapy (CBT) has been found to accelerate recovery, lead to earlier remission of symptoms and to be an acceptable intervention in acute care settings.[2,3] It is recommended by NICE (National Institute for Health and Care Excellence) that all individuals with a diagnosis of psychosis are offered CBT, though less than ten percent actually access it.[4] Within acute settings psychosocial interventions are not readily available, with only 35% of wards routinely been able to offer psychosocial interventions and under 20% of wards offering CBT routinely.[5]

Research into engagement with psychology within acute care settings is limited. **Individual CBT has been found to be deliverable in such a setting to people experiencing their first or second episode of psychosis. In a RCT Lewis and colleagues[23] found that CBT led to significant improvements in both positive and negative symptoms at 4 weeks, when compared to routine care. These improvements were not sustained at 6 weeks indicating that CBT has transient benefits. At an 18 month follow up[24] both CBT and supportive counselling led to improvements in positive and negative symptoms when compared to routine care alone. A further RCT[25] examined the effects of individual, weekly CBT in individuals experiencing a psychotic disorder within an inpatient setting. They found no significant differences when compared to treatment as usual at 6 months. However, at 12 months they found that CBT significantly improved outcomes on positive and negative symptom**

measures, as well as on measures of global and social functioning. A 2 year follow up[26] they found that gains were maintained with regards to negative symptoms and social functioning but that CBT had lost its advantage on positive symptoms. A recent study explored interest in psychological therapy within an inpatient setting. In their qualitative study with young people Mitchison and Colleagues[6] found that 41% of participants were interested in engaging in therapy, whereas 36% and 23% were rated as not interested or ambivalent. Engagement with psychology in psychosis community teams has been more explored, there is evidence of significant disparities between ethnic groups in this context.[4]

Clients identified as being from a Black Minority Ethnic (BME) background experiencing their first episode of psychosis (FEP) are more likely to experience aversive pathways to care and are over represented in acute settings.[7,8,9] A link between adverse contacts with services and poorer outcomes has been consistently demonstrated.[8,10] Within FEP services individuals from a Black African ethnic group were significantly more likely to be detained under the mental health act (MHA) in comparison to individuals from a White British ethnic group.[11] Additionally in this study, Mann et al (2014) found that the odds of **women who are identified as Black African** being detained in the first year of their FEP care were seven times higher **than those identified as being White British.** Explanations for ethnic disparities in pathways to care and detention rates have included different explanatory models of mental health problems within BME groups, and that presentation often occurs at crisis point rather than during the earlier stages of symptom

development.[8] **Whereas service users from a white British background** are more likely to understand psychotic symptoms in terms of ill health and have greater trust in mental health service.[10] **Young men who identify as being black British**, within Early Intervention (EI) services, already show high levels of dissatisfaction with most aspects of the mental health services, often viewing it as an extension of the criminal justice system.[12] Individuals with psychosis from BME groups and their families often view services as unnecessary, unhelpful and discriminating[11], which is likely to influence engagement with psychological therapies in the community setting.[7]

The Schizophrenia Commission (2012)[4] as one of their main recommendations stated that increasing access to psychological therapies, in line with NICE guidelines[13] is crucial. They specifically point out the need to take action to address inequalities and meet the needs of all disadvantaged groups. In particular, the Commission highlights the necessity of investigating factors underlying the dissatisfaction experienced by BME groups within acute care settings.

Which proportions of individuals, or whether certain demographic groups engage more or less readily with psychological interventions, within an acute setting, are as of yet unanswered questions.

Understanding if predictors of engagement in community settings reflect engagement with psychology in an inpatient setting is important in considering how to improve and increase access to psychology engagement within both

types of setting. There is a unique opportunity to explore patterns of engagement with psychological therapies, within this specialist EI unit, as service users are regularly approached to engage in psychological therapies.

The main aims of this exploratory audit were:

1) To examine the feasibility of both individual and group psychology sessions on an EI inpatient ward by reporting attendance;
2) To identify potential predictors of engagement, specifically:
    a. Demographic factors: Gender, Age and Ethnicity;
    b. Admission factors: Section status, number of prior admissions and length of admission.

METHOD

Design

This was a retrospective cohort study using data from all service users who were admitted to the Early Intervention inpatient ward in a six-month period between the dates of 1st April 2013 and 30th September 2013. **Attendance at sessions was taken as a proxy measure for engagement.**

Ethics

Approval for the audit was sought through the SLaM Psychosis Clinical Academic Group. All data was obtained and stored according to NHS policies.

Inclusion Criteria

Cohort was identified using the admission and discharge databases for the ward. We included all admissions between 1st April 2013 to 30th September 2013, this included cases whose admission date preceded 1st of April or discharge was later than 30th September 2013.

Procedure

The NHS (national health service) trust ID of identified cases was used to manually extract data from the electronic Patient Journey System (ePJS) used by South London and Maudsley (SLAM) NHS Trust.

Data extraction

Using ePJS we extracted data on:

(1) Demographics: Gender, age, ethnicity, country of birth, occupational status

(2) Clinical information: diagnosis on discharge, number of previous admissions, length of admission, and whether the current admission was under section/section type;

(3) Engagement in psychology: number of groups attended (including Mindfulness, Problem Solving and CBT group) and the number of individual psychology sessions attended.

Description of service

The specialist Early Intervention inpatient unit (EIU) is an 18-bed ward accepting referrals for individuals presenting with their first episode psychosis, or for service users who are under one of the four community early intervention psychosis teams covered by the SLaM catchment area. Priority is given to people who are presenting for the very first time to services.

The unit is comprised of 10 male and 8 female beds, which are separated and all have en-suite facilities. It is staffed by a full multidisciplinary team including nurses, healthcare assistants, psychiatrists and occupational therapists. It aims to offer a holistic approach to care and different disciplines in-reach to the unit to run groups, for example art and music therapists, dance and movement therapists, exercise instructors and peer support workers.

Description of psychological interventions

Staffing

The psychology team consisted of 1 part-time clinical psychologist (0.4 whole time equivalent -WTE), 1 part-time trainee clinical psychologist (0.4 WTE) and 2 part-time honorary assistant psychologists (1.1 WTE).

Procedure for offering psychological therapies

The assistant psychologists approached any new service users on the unit. They gave an introduction to psychological therapies in general and the interventions available on the ward. They would ask permission to ask the service user some questions to gain an initial narrative of their view of what led

to their admission, and to start the process of developing personal goals for their admission. At the end of this meeting the service user would be asked whether they are interested in individual psychology sessions, and if so, this would be relayed to the clinical psychologist, and the individual sessions would be delivered by the trainee clinical psychologist or clinical psychologist.

The groups are introduced in this initial meeting. The groups are also advertised on a weekly timetable and written up on a daily activities board and every service user is invited to attend.

Psychological therapies offered

Individual

The main therapeutic approach for individual sessions was CBT, which would be similar in approach to a pilot study examining CBT for early psychosis within an inpatient setting[14] and is recommended by the NICE guidelines for acute care.[13] The sessions were person centred and led by the service users' goals. Initial stages included engagement and assessment, followed by an exploration of goals, description of the service users current difficulties and a formulation of the main presenting difficulties. These could be, for example, anxiety or intrusive thoughts/voices, unusual ideas, low mood or staying well (i.e. relapse prevention[15]). A referral onwards to the psychologist in the appropriate community team would be discussed prior to discharge.

Groups

Three psychological therapies groups were facilitated per week (by two members of the psychology team). These included a mindfulness group, a CBT based group and a problem solving group. These groups were chosen as Mindfulness groups have an emerging evidence base within inpatient settings;[16] CBT is recommended in the NICE guidelines for FEP,[13] group CBT has been found to reduce feelings of helplessness and low self-esteem in people experiencing schizophrenia[17] and research has shown that people with a diagnosis of schizophrenia can find it more difficult to problem solve. [39]

The mindfulness group lasted approximately 40 minutes. It would start with an initial discussion of the principles of mindfulness. There would then be a movement exercise,followed by an exercise using one of our five senses, followed by a brief mindfulness of the breath exercise and ending with a poem. There was a debrief after each exercise which focussed on what people noticed within the exercise and positively reinforced any noticing.

The CBT based group would rotate 6 different topics. These included stress, low mood, paranoia, anger, drugs and alcohol, and romantic relationships. The drugs and alcohol group took more of a motivational interviewing approach whilst the romantic relationships group started with a scenario and prompting questions.

The problem solving group followed a format similar to that described by Grey (2007).[18]

Analyses

SPSS 20 was used to provide descriptive information on the cohort. Forward entry multiple linear regressions were used to determine if any of the demographic or admission variable predicted engagement with psychology (either individual or group psychology sessions). Binary and continuous variables were entered into the model as they were; whereas, categorical variables were first dummy- coded using a selected group as the reference group before being entered into the model. For the analysis, dummy variables were created using white British as the reference group.

RESULTS

One hundred and one records meeting the inclusion criteria were identified. Fifty five percent of the cohort were male, the mean age was 25.53 (range 18-36, SD 5.46) and 53.5% were from a black ethnic background. It was the first admission for 39.6% of service users, with 43.6% being under section 2 **(involuntarily detained for assessment for up to 28 days)** of the mental health act, and the **median** length of stay was **28** days (range 1-167, SD 34.9).

See Table I for demographic characteristics and admission details.

INSERT TABLE I HERE

Engagement in psychology

Over two thirds (n=68; 67.3%) of the service users engaged in psychological therapy. Forty-six percent (n=47) attended psychology groups, and 58.4% (n=59) engaged in individual psychology sessions. **Thirty seven percent (n=38) attended both group and individual sessions.** Of those who engaged forty service users (39.6%) attended 3 or more psychology sessions (group and/or individual) and the mean number of sessions attended by a service user was 4.9 (SD 5.7, range 1-28). Over the 6 month period, 157 individual psychology sessions were delivered. Over the 6 month period the mindfulness group was attended 68 times, the CBT group 61 times and the problem solving group was attended 47 times.

Predictors of engagement in psychology

Categories entered into analysis included Gender, Ethnicity (collapsed into White British, Black, Other), age, section status, number of prior admissions (collapsed into first admission or more than one) and length of admission.

Two predictors explained 18.7% of the variance in engagement with individual psychology sessions ($F(2, 97) = 11.13$, $p < .001$, $R^2 = .187$, $R^2_{Adjusted} = .17$). It was found that length of admission significantly predicted engagement with individual psychology ($\beta = .408$, $p<.001$), as did section status ($\beta = -.270$, $p<.005$).

One predictor explained 14.5% of the variance in engagement with group psychology sessions ($F(1, 98) = 16.576$, $p < .001$, $R^2 = .145$, $R^2_{Adjusted} = .136$).

It was found that length of admission significantly predicted engagement with group sessions (β = .38 p<.001).

Two predictors explained 19.2% of the variance in engagement with psychology overall ($F(2, 97) = 11.53$, $p < .001$, $R^2 = .192$, $R^2_{Adjusted} = .175$). It was found that length of admission significantly predicted engagement with individual psychology (β = .438, p<.001), as did section status (β = -.210, p<.005).

Service users who were **voluntarily admitted** attended a mean of 2.23 individual sessions (n=40, range 0-14) and a mean of 4.25 sessions overall (n=40, range 0-28). People admitted under section 2 of the MHA attended a mean of 1.05 individual sessions (n=44, range 0-4) and a mean of 2.45 sessions overall (n=44, range 0-8), whilst service users admitted under section 3 of the MHA **(involuntarily admitted for treatment)** attended a mean of 1.29 individual sessions (n=17, range 0-9) and a mean of 3.24 sessions overall (n=17, range 0-13).

Ethnicity, gender, nor number of previous admissions predicted engagement in psychology.

DISCUSSION

This study examined engagement with psychological interventions on a specialist acute inpatient unit for people experiencing their first episode of psychosis.

Engagement in psychology

We found that psychological interventions on the EI inpatient unit were acceptable to the vast majority of service users, **which is in line with previous research.[23,25]**

Two thirds of service users attended some form of psychological intervention. This is higher than the 41% of participants who expressed an interest in therapy in a previous study.[6] Our finding indicates that an acute setting could offer the opportunity to engage people who are both actively interested and those who are ambivalent. Through informal contact service users may have time to consider, explore, and make a choice of engaging in sessions, as barriers and preconceived notions of psychology are potentially broken down.

Mindfulness was the most attended of the psychology groups. This adds to the growing evidence base of the acceptability of mindfulness groups within inpatient settings.[16] In comparison to the other groups the mindfulness group is less reliant on the service users' active participation, disclosure and discussion, and consequently might feel less threatening.

Factors influencing engagement

Section status and length of admission were the only factors that were found to be significant in predicting engagement.

Section status

Service users who were admitted to the ward **voluntarily** were more likely to engage in individual sessions than those admitted under the mental health act. **They are potentially more help seeking which could explain this finding.** This was not the case for groups, which suggests that group sessions are a more acceptable form of psychological intervention to service users admitted involuntarily. In contrast to individual sessions, groups allow service users to have more flexibility in choosing their level of engagement, to listen and observe, rather than speak and therefore might be experienced as a less threatening environment.[19] This contrasts to individual psychology sessions, and other meetings within an acute setting, in which there might be more perceived power differences in the relationship, particularly with regards to an individual who has been admitted involuntarily. Individuals admitted involuntarily are more likely to experience perceived and physical coercion.[20]

Length of admission

Engagement was predicated by length of admission. Service users who were initially ambivalent might engage over the course of time due to the gradual development of trust with psychology team. On this unit the psychology team is embedded within the wider MDT. Due to resources, often within acute services in the UK, psychologists' in-reach to the inpatient settings and require

referrals from the inpatient teams. This would understandably reduce the opportunities for informal contacts and could impact on engagement.

This finding might also be explained by service users' mental health improving over the course of admission and therefore engaging when their mental health was more stable. This has implications for units in which the average stay is shorter as this might impede on engagement with psychology.

BME population

Research into community populations have found that people from BME backgrounds tend to engage less well with community psychology teams compared to **those from White British backgrounds.**[12,22] These differences are not evident in our in-patient setting, indicating that there may be a window of opportunity to engage people of BME backgrounds who find it harder to engage in community settings. One barrier this inpatient setting reduces is the need for a referral to psychology. All service users are approached for both individual and group sessions, and if decline, are approached again to see if they are willing to engage. The length and focus of sessions are flexible and respond to the service users' needs, engagement is a priority. This might circumnavigate some of the identified barriers in the community such as low referral rates[7] and challenge an individual's perceptions of a psychologist and their perceived efficacy of therapy.[6]

Clinical implications and future directions

This inpatient setting is well resourced in terms of psychological interventions, which is not always the case within acute settings. Psychology was offered to everyone on the unit and due to resource issues this is not always possible in other units. That a high level of engagement was found really highlights the importance of having such resources to allow as much exposure to psychological therapies as possible. If resources are limited and therefore a referral system in place, it is important to continually review the referral procedures to make sure assumptions are not being made about who might engage with psychology. As individual sessions were attended by more service users it might be best to focus resources on such, with an additional group, such as mindfulness, that might be perceived as non-threatening.

In future it would be of interest to examine whether engagement with psychological interventions on the unit increases engagement with psychology within the community. It would also be important to evaluate service users' satisfaction with psychological therapies within acute care.

Limitations

All available data collected in this retrospective cohort study were from online routine documentation. As such, errors may have occurred through reporting inaccuracies and inadequacies. **This study highlights the importance of accurately recording attendance at psychology groups and sessions to allow for future research of a similar nature.**

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Table I: Demographic characteristics and admission details

	n (%)	n (%)
Gender		
Male		55 (54.5)
Female		46 (45.5)
Ethnicity		
White British		14 (13.9)
Black		54 (53.5)
Black Caribbean	18 (17.8)	
Black African	29 (28.7)	
Black Other	7 (6.9)	
Other		33 (32.7)
Mixed	6 (5.9)	
White Other	9 (8.9)	
Other	10 (9.9)	
Asian	8 (7.9)	
Country of Birth		
UK		49 (48.5)
Overseas		41 (40.6)
Missing		11 (10.9)
Occupation		
Employed		23 (22.8)
Unemployed		48 (47.5)
Student		14 (13.9)
Missing		16 (15.8)
Other		2 (2.0)
Diagnosis at discharge		
Psychosis:		
-Schizophrenia		31 (30.7)
-Unspecified non-organic psychosis		34 (33.7)
-Bipolar affective disorder		5 (5.0)
-Acute and transient psychotic disorder		11 (10.9)
-Schizoaffective disorder		4 (4.0)
Mood disorder		6 (5.9)
Other		10 (9.9)
Admission Number		
First		40 (39.6)
Second		25 (24.8)
Third or more		36 (35.6)
Admission Type		
Voluntary		40 (39.6)
Section 2		44 (43.6)
Section 3		17 (16.8)