Reducing Lost-to-Follow-Up Rates in Patients Discharged from an Early Psychosis Intervention Program

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ABSTRACT

- **Objective:** To develop and apply interventions to reduce lost-to-follow-up rates in patients discharged from an early psychosis intervention program.
- **Methods:** A team comprising clinical staff, case managers, and patients was formed to carry out a clinical practice improvement project. Tools such as brainstorming and root cause analysis were used to derive causes of patient loss to follow-up and interventions to address them were implemented. Plan, Do, Study, and Act cycles were used to evaluate the effectiveness of identified interventions.
- **Results:** After the 3 interventions were implemented, there was a decrease in the default rate, and the target default rate of 0% was achieved in less than 6 months.
- **Conclusion:** Easily implemented program changes led to rapid and sustained improvement in reducing lost-to-follow-up rates in patients discharged from an early psychosis intervention program.

Key words: lost to follow-up; early psychosis; continuity care.

Psychosis is a mental illness in which affected individuals lose contact with reality. The lifetime prevalence of all psychotic disorders is 3.06% [1]. The typical symptoms consist of hallucinations, delusions, disorganized speech and thinking and negative symptoms (apathy, avolition, alogia, affective flattening, and anhedonia). Treatment is primarily with antipsychotics and psychological and social therapies.

The key to better prognosis is shortening the duration of untreated psychoses (DUP), defined as the period of time between the onset of psychosis and initiation of adequate treatment [2]. Longer DUP is one of the poorer prognostic factors in the outcome of first episode psychosis patients [3]. Over the past 2 decades, there has been considerable interest in developing and implementing specialized treatment programs for first episode psychosis [4], and early intervention is now a well-established therapeutic approach [5]. Early intervention has 2 elements that are distinct from standard care: early detection and phase-specific treatment (phase-specific treatment is a psychological, social, or physical treatment developed, or modified, specifically for use with people at an early stage of the illness). It is not only the initial care that is important, but regular follow up in the stable phase is necessary to reduce chances of relapse.

The Early Psychosis Intervention Programme (EPIP) in Singapore is a national program whose mission is early detection of young people with early psychosis or at risk of developing a psychotic illness and engagement with these individuals and families with the aim of providing accessible, empowering, individualized, evidence-based care in a least restrictive environment. The program was initiated in April 2001 under the auspices of the Ministry of Health, Singapore. EPIP has a multidisciplinary team of doctors, case managers, occupational therapists, psychologists, family therapists, social workers, and nurses to provide a comprehensive and personalized client-centered service across inpatient, outpatient, and community settings. The program spans 3 years and has 3 phases, beginning with acute intervention, followed by the stabilization phase, and then the stable phase, which focuses on relapse prevention, healthy lifestyle, stress management and plan for transition to downstream care. The frequency of visits and interaction with the team is tailored to suit individual patient needs and phase of care and can range from every day to once every 3 months. Following the 3-year program, clients are discharged from EPIP to continuity care (community psychiatry teams).

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EPIP data showed that 25% of patients failed to follow up with the continuity care team after being discharged from EPIP. Newly discharged patients from psychiatric units can relapse [6], which has the potential to lead to increased admissions due to deterioration in mental state with attendant risk of harm to the patient and others [7]. International evidence indicated that patients miss about 20% of their scheduled appointments for mental health [8], almost twice the rate of missed appointments seen in other medical specialties. Up to 50% of patients who miss appointments drop out of scheduled care [8]. Another study indicated that about 20% to 34% of scheduled mental health service appointments resulted in “did-not-attend” outcomes [9]. Also, such missed mental health services appointments tend to both delay access to care and increase the risk of continued disengagement from services, nonattendance, nonadherence to medication and readmissions [8,10–13]. Nonadherence to prescribed medication has been shown to be associated with increased risk of illness exacerbation, hospitalization, increased resource use, chronicity of symptoms, poorer outcome and an increased likelihood of nonresponse to a previously successful treatment regimen [14].

We sought to introduce interventions to reduce default rates. We proposed improving compliance to downstream care would reduce relapse and readmission rates and thereby the burden of care. A team comprising clinical staff (doctors, case managers, psychologist, occupational therapist) and patients was formed to carry out a clinical practice improvement project to reduce default rates from 25% to 0% in 6 months. Default was defined as failure to attend the first appointment with continuity care.

**METHODS**

**Review of Processes**

We invited members from each of the departments who were involved in the process as well as past and current EPIP patients who have recovered from their own illness and provide peer support to the current patients to serve on the improvement project team. A psychiatrist and a case manager were the team leaders. Various tools such as brainstorming, root cause analysis, cause and effect diagram, and Pareto chart were used to derive the root causes of the problem.

The team developed a flow chart of the microprocesses involved in discharge, which helped to identify the complexities and shortcomings in that phase and develop solutions. We also sought feedback from patients who were due to be discharged within the next 6 months about their views on follow-up. One third of patients said that they would not follow up at all as they felt no follow-up was necessary after discharge. More than half of those added that not being assigned a specific doctor and manager was also a barrier to follow-up.

**Intervention**

Based on our review of processes and input from patients, we decided to test 3 simple changes using Plan, Do, Study, and Act (PDSA) cycles. Each intervention was implemented at 2-week intervals.

1. **Elimination of the word “discharge”**

Patients mentioned that because the word “discharge” was used when the service was introduced, they interpreted it as being discharged from mental health services and thus no follow-up was necessary after they were “discharged” from EPIP. We tested changing the word “discharge” to “transfer of care” throughout the program, including on all the forms, on the official departmental stamp, and during introduction of EPIP services. After implementing this intervention, all 8 patients transferred came for their first appointment with downstream care.

2. **Improve insight/reduce overreliance on case managers**

We recognized that many patients exhibited lack of insight. They did not accept their diagnosis and the need for continued treatment despite repeated psychoeducational sessions. During their follow-up with EPIP, they needed ongoing reminders from their psychiatrists or case managers to come for follow-up and take medication and were unable to recognize signs of relapse. Patients in the peer support group told us that some patients perceive defaulting treatment as “empowering,” as they are making their own decisions and not “following orders.”

We tested using a relapse signature card more frequently (Figure 1). The card lists the early signs of relapse. The patient and caregiver are encouraged to proactively contact the treating team if these symptoms occur and not wait until the case manager makes a call or sees the patient. Out of 6 transferred patients, 5 came for their first visit appointment and 1 defaulted.
The relapse signature card was used every 2 months in the last 6 months during the period that the improvement project was ongoing. As it was found effective, now we use it every 6 months until 30 months and then every 2 months until conclusion of the 3-year program.

In addition, an appreciation card (Figure 2) was designed that is given to patients who keep their first downstream appointment. The card highlights independence and responsibility for one’s own care.

3. Provide a designated contact person

To ensure a smooth transition to the new service, we provided a designated person to contact for continuity care. Arrangement was made to transfer care to a specific community team of specific doctors and case managers, and their hospital contact details were provided on a card that was given to patients. Of the 8 patients who were transferred, 1 defaulted, 1 went overseas, 1 followed up with a private psychiatrist and the remaining 5 came for their first visit appointments.

RESULTS

We created run charts to monitor the long-term effectiveness of the interventions. After each of the interventions, there were some fluctuations in the default rate. However, once all 3 interventions were implemented 1 December 2012, there was a decrease in the default rate of patients and the target rate of 0% was achieved within 2 months. A total of 131 patients were transferred from 1 December 2012 to 1 May 2015. Two patients defaulted in the first 2 months after all the interventions were instituted, resulting in a default rate of 1.52%, compared with the pre-intervention rate of 25% (Figure 3). We continued to monitor the default rates until 1 May 2015 and maintained our 0% default rate (data not shown).
Note of Appreciation

Dear ____________

EPIP would like to thank you for the tremendous effort you have put in so far over the past _______ years in your recovery. Your cooperation with the EPIP Treatment Team is greatly appreciated. As you move on in your recovery journey, EPIP would like to wish you all the best in working with your new team.

Figure 2. Note of appreciation.

Figure 3. Run chart showing percentage of patients who failed to attend their first appointment with continuity care following transfer out of the program. Pre-intervention, default rates ranged from 9% to 75%. In the first 2 months after all the interventions were instituted (Dec 1 2012–March 1 2013), 2 patients defaulted, after which the default rate decreased to 0%.
DISCUSSION

Making 3 small changes in our early psychosis intervention program led to rewarding gains in improving our patients’ follow-up with continuity care and the changes have become part of our standard operating procedure. In reviewing our processes to identify the root causes for loss of patients to follow-up, we found that obtaining the patient’s perspective was invaluable. It was interesting to learn that the word “discharge” might be impacting the way patients thought about follow-up after completion of the early intervention program. The interventions have become part of our standard operating procedure and we continue to audit the results every month to ensure that 0% default is being maintained. We are also looking into improving our psychoeducational materials for patients and caregivers and using more visual and interactive materials.

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References