Early intervention in psychosis: specialized intervention and early case identification

Intervention précoce dans la psychose : intervention spécialisée et identification précoce du cas

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Abstract

Specialized early intervention (SEI) approach to treatment of a First Episode of Psychosis (FEP) consists of two equally important components, namely, a phase specific treatment program and early case identification. In this article we report a brief update on our knowledge about both aspects of SEI services. We then provide a description of a prototypical SEI service within the Canadian context, examine the pathways to care for patients with FEP and report on different methods of reducing delay in treatment. We also provide a description of a novel method of reducing delay in treatment using principles of academic detailing targeting all health care and educational services within a defined catchment area in combination with quick access to the SEI service.

MOTS CLÉS

Premier épisode psychotique ; Intervention précoce

KEYWORDS

First episode; Pathways to care

Résumé

L’approche dite d’intervention précoce spécialisée (IPS) pour le traitement d’un premier épisode psychotique (PEP) comporte deux éléments d’égale importance, c’est-à-dire un programme thérapeutique spécifique à cette phase et une identification précoce du cas. Dans cet article, nous effectuerons une brève mise à jour de nos connaissances sur les deux aspects des services IPS. Nous décrirons ensuite un prototype canadien de service IPS, nous examinerons les méthodes de soins des patients présentant un PEP, puis nous présenterons différentes méthodes permettant de réduire le retard de mise en œuvre du traitement. Nous exposerons également une nouvelle méthode permettant de réduire ce retard en utilisant les principes de la visite médicale académique (academic detailing) afin de cibler tous les services de formation et de soins médicaux d’un secteur donné, en association avec un accès rapide aux services IPS.

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Conflits d’intérêts:
A. Malla : Essais cliniques : en qualité d’investigateur principal, coordonnateur ou expérimentateur principal (Janssen, Pfizer, BMS, AstraZeneca) ; Essais cliniques : en qualité de co-investigateur, expérimentateur non principal, collaborateur à l’étude Janssen, Pfizer, BMS, AstraZeneca) ; Interventions ponctuelles : rapports d’expertise et activités de conseil (Janssen, Pfizer, BMS, AstraZeneca) ; Conférences : invitations en qualité d’intervenant (Janssen, Pfizer, BMS, AstraZeneca).

One of the most promising developments in treatment and outcome in psychotic disorders in the past decade or more has been the burgeoning interest in application of a specialized early intervention approach. Although initially this approach was primarily predicated on the premise that earlier treatment with antipsychotic medication is likely associated with better outcome [40], more recently it has been observed that there is, in fact, more to early intervention than simply intervening early [22]. Currently it is generally understood that in order to improve outcome in psychotic disorders through early intervention, two components of such an approach need to be incorporated into any such service development. The first component refers to the nature and quality of treatment provided. It has now been demonstrated that treatment of a first episode of psychosis needs to be specifically targeted at the particular phase of the illness and address the very special needs of this patient population. Such needs are associated both with the early phase of the illness such as, quick response to and high sensitivity to side effects from antipsychotic medication as well as the developmental stage of most patients who are either adolescents or young adults naïve to the complexities of the mental health system. The second component is related to the well established and frequently replicated report that duration of untreated psychosis is associated with poor clinical and social outcomes and, hence, reduction in delay and improvement of access to specialized treatment needs to be an essential component of any specialized early intervention service. Both components of SEI approach are based on the concept that there is a critical period in the early course of psychotic disorders, extending to a maximum of five years from the time of onset of illness, during which future trajectories of outcome are defined [4]. Interventions are, therefore, likely to have their greatest impact on outcome during this critical phase.

In this article, based on the conference at Hôpital St. Anne in March 2010, we describe both components of the early intervention approach but concentrate more on the issues related to pathways to care and attempts to reduce delay in treatment. Issues related to the putative prodromal phase of the illness are not discussed.

Nature and quality of treatment

SEI services generally consist of a multidisciplinary team with a modified form of case management at the centre of delivery of care, although there are many variations of this model applied in different settings. All patients are offered treatment with mostly novel antipsychotics because of their lower propensity of extra-pyramidal side effects and lower risk of tardive dyskinesia although some of the novel antipsychotic medications have now clearly been associated with increased risk of metabolic syndrome. In addition, patients and families receive family intervention in different formats ranging from a minimum of psycho-education and continuous support to well developed individual or multiple family interventions; psychological and behavioural interventions ranging in their focus from diet and nutrition to more intensive psychotherapeutically oriented group interventions, skills training, relapse prevention and, most importantly, variations of case management to assist the patient and family to deal with the onset of psychosis and its treatment and to help them on the road to recovery and adjustment. The quality of interventions provided during the treatment of the first episode is important not only for improving outcome in the short term but also to ensure a positive experience which will encourage a better future engagement with services given the long term nature of these disorders.

Results of controlled and uncontrolled studies have confirmed the extra benefits associated with specialized treatment of FEP [8, 37]. These benefits are observed not only in domains of symptoms and functioning but also, and perhaps even more importantly, in engaging patients in treatment in a respectful manner within an environment of greater optimism and personal potential.

Delay in treatment, pathways to care and access to specialized treatment

In the context of individuals experiencing a first episode of psychosis (FEP), a longer delay in receiving treatment has been associated with poorer outcomes [28, 32, 33, 36] as well as significant distress for patients and those close to them. Part of this delay occurs in people’s ability to recognize that something is wrong and then to attribute that to possibility of a mental disorder before patients and their families seek help [3, 34]. Once patients and their families decide to seek treatment for a mental health problem, it is not uncommon for them to encounter long delays and a tortuous pathway through the health care system before reaching appropriate treatment services. Inadequate access to treatment, inappropriate response to seeking help and other systemic problems [16, 34] are likely to deter and discourage patients and their families to persist in accessing services.

It is proposed that by reducing delay in receiving appropriate treatment, we may improve outcomes for those experiencing a first onset of psychosis. However, before developing effective interventions to reduce treatment delay, there needs to be an understanding of the nature and source of the delay (patient and/or system related) [3, 19, 21, 31, 34] as well as the kinds of interventions that have proven to be effective in altering patients’ pathways to care.

In the following section we review the concept of delay in treatment in relation to pathways to care and provide an overview of interventions that have been implemented and studied internationally to reduce treatment delay. We also briefly describe a new case identification intervention program targeted specifically at primary care (rather than community wide education campaigns) based upon a comprehensive literature review, evidence drawn from our integrated clinical-research program for early intervention in psychosis at the Douglas Mental Health University Institute, and contextual factors related to the health care
system in Quebec. Using a historical control design, this case identification intervention program is currently being evaluated for its efficacy in reducing delay in treatment for a FEP. The program is based upon academic detailing and is the first systematic evaluation of an academic detailing—early case identification program in Canada. In this paper, we present a practical, contextualized illustration of how evidence based knowledge on pathways to care can be translated into the development of early case identification interventions.

Understanding delay in treatment

Delay in treatment of psychosis, otherwise referred to in the literature as the duration of untreated psychosis (DUP), is the time between the onset of symptoms of psychosis at a threshold level for diagnosis of a psychotic disorder and the initiation of adequate antipsychotic medication. Antipsychotic medication is a necessary aspect of treatment albeit not sufficient on its own; an additional, but not necessarily an alternate definition for DUP is justified using initiation of comprehensive treatment (including psycho-social interventions) as the end point instead of medication only. Studies have found the DUP to be in the range of 1-2 years, with median values of approximately 4-6 months [29, 32, 34]. DUP is a complex phenomenon, with a grossly skewed distribution, is influenced by several factors which are either patient, family, or system related including: patient characteristics (e.g., gender, age of onset of psychosis, pre-morbid adjustment), co-existing problems (e.g., substance abuse, depression), disease characteristics (e.g., negative symptoms, type of positive symptoms), family and cultural factors and access to adequate services [32].

Components of Treatment Delay

Treatment delay is better understood by separating it into different components, which include: help seeking delay, referral delay, and engagement delay.

Help seeking delay

Help seeking delay refers to the time it takes for individuals and their family members to seek treatment. Adolescents and young adults in the early stages of psychosis may not believe that their symptoms are signs of an illness that require treatment. Moreover, the intermittent nature of psychosis symptoms (e.g., in relation to stress) also influence help seeking such that when symptoms disappear or diminish in intensity or frequency, there is less worry and hence, less chances of seeking help [10]. Negative past experiences, fears, and stigma of psychiatric treatment can also cause a delay in seeking help.

Referral delay

Once individuals and family members start to seek help, there is a second source of delay to treatment which is system related. Patients and/or their families often make a number of contacts with helping professionals before being referred to effective treatment. A study conducted in France revealed that the majority of patients (88%) had multiple help seeking contacts [1-7] prior to receiving adequate treatment for a FEP and that 70% of these failed contacts had been with a health care professional [7, 34] reported that following the onset of psychosis, at least half of the delay in treatment occurs after patients first contact health services. While 38.6% of the sample in Norman et al.’s study had their first contact with a family physician, only 14.5% entered treatment through referral from family physicians.

A detailed analysis of data from our program revealed that the majority of first episode patients make multiple visits to primary care health services before being referred for evaluation and treatment at our SEI service. Interestingly, there is a relatively low proportion of referrals from physicians (17%) [3] which may be related to the difficulties people in general, and psychiatric patients in particular, have in obtaining a designated primary care physician in our jurisdiction and possibly other areas in Canada. Patients who sought help through non-physicians in the community had longer DUP when compared with patients who sought help from physicians or through the Douglas’ hospital emergency service (median 24.4 vs 5.1 and 8.5 weeks, respectively) [3].

Why would non-physicians in primary health services and other potential sources of referral such as community-based therapists, counselors, and workers in the social and educational system have difficulty facilitating early referral for treatment? Possible reasons include the relatively low incidence of a new onset of psychosis in primary health care and, therefore, lack of knowledge regarding early signs of psychosis; difficulty associated with recognizing negative symptoms and their clinical significance; being unaware of appropriate specialized programs providing immediate access to adequate assessment and treatment; fear of upsetting the patient’s family; and lack of perceived support from specialized mental health services. In addition, patients often initially refuse treatment and primary care providers may find it difficult to effectively engage such patients without support from a specialized service to which they would have quick access. Given that pathways to psychiatric treatment have been shown to be particularly slow through primary care providers [34] it has been suggested that primary care can be a key factor in reducing DUP and in facilitating access to sustained treatment [7].

Engagement Delay

Once referred to a specialized service, it often takes additional time to engage the young person before she/he receives adequate treatment. This third source of delay, which can be referred to as “engagement delay”, most likely results from a combination of factors related to the mental health delivery system, the level of integration between components of the system (primary vs. specialized care), patients’ willingness to accept treatment and the skills of potential service providers to engage patients and their families. No systematic studies have been conducted in understanding the sources of engagement delay.
Altering Pathways to Care through Interventions which Promote Early Case Identification

Several international programs have implemented early case identification initiatives to reduce the delay in receiving treatment for a FEP [5, 6, 15, 17, 19, 25, 30, 31]. Early case identification programs have been designed partially based on the idea that treatment is delayed due to a lack of knowledge regarding psychotic disorders among the general population and primary care workers, as well as due to difficulty in accessing appropriate specialized services when needed. Hence, these programs take similar approaches, which include educating the community on signs and symptoms of psychosis; the importance of getting treated early; and on how to access appropriate treatment. Moreover, each of these programs also target health care professionals to increase their ability to identify individuals with psychosis earlier and to facilitate prompt access to specialized assessment and treatment services.

Community wide case detection interventions have produced mixed results. A Scandinavian study evaluating an early detection system for FEP implemented across two health sectors (with two other health sectors serving as controls) had a significant effect on reducing DUP in the communities with the early detection program in comparison to the control communities; also, a reduction in treatment delay was associated with lower levels of symptom severity at the beginning of treatment [31]. In contrast, a Canadian study on an early case identification education campaign targeted at the entire community (390,000) [25] failed to show an overall statistically significant reduction in DUP two years [28] and three years following the intervention [5]. However, the Canadian early case identification program did result in recruiting patients with very long DUP who would otherwise not have entered treatment and reduced DUP for cases with moderately long DUP (less than one year) while having no effect on patients with long DUP.

Different impacts of community wide case identification interventions may be related to the level of access to primary care, integration between primary care and specialized programs, as well as differences in population characteristics (for details see) [5, 25].

It follows from the above review that a more intensive approach targeted specifically at the major sources of referral such as primary care providers in the context of immediate access to a specialized treatment program may achieve significant reduction in DUP and reduce the impact of the vagaries of the mental health system on patients’ access to adequate care. Such an approach would address some of the factors associated with treatment delay, focus on enabling primary care providers to identify and promptly refer FEP patients for treatment and thus achieve an overall reduction in the number of failed attempts at seeking help as well as reduce DUP.

The Canadian health care system in general, and Quebec in particular, has the potential to provide ready access to primary health care without necessarily the first contact occurring with physicians and lends itself to implementing and evaluating such interventions. It is publicly funded with no competition of a private system. In this context, we developed, implemented, and evaluated the effectiveness of a case identification program for FEP targeted at primary care.

Targeted Case Identification for FEP

We begin this section with a description of the context, a prototypical SEI service, in which we developed and implemented the case identification program. Case identification interventions should be provided in a context where assessment is easily accessible with particular emphasis on flexibility in engaging young patients and their families to receive optimum treatment.

PEPP-Montreal

Our case identification intervention is an initiative operating out of The Prevention and Early Intervention Program for Psychoses-Montreal (PEPP-Montreal), an integrated clinical-research program established in 2003 at the Douglas Mental Health University Institute (McGill University). PEPP-Montreal provides assessment and treatment to young individuals with a FEP (age 14-30) preferably in out-patient as well as community based settings. The program is staffed by a multidisciplinary team including: six case managers from different clinical backgrounds (e.g., nursing, social work, counseling and psychology, occupational therapy); 1.5 full time psychiatrists (distributed among five psychiatrists who also work in other clinical services at the institute); 1 screening clinician (Masters level); 2 part time psychologists; 1 full time secretary. The program is also a teaching and training environment for psychiatric residents, fellows, and students from other clinical backgrounds.

Part of an adult in-patient unit (5 beds) within the parent teaching hospital is dedicated to the treatment of FEP. This is an integral aspect of the program and is operated by one psychiatrist who is also a team member of the specialized early psychosis service to maintain continuity of care from in-patient to out-patient services. In addition, an adolescent psychiatrist, as part of the team, has access to an adolescent in-patient unit for FEP between ages of 14 and 18 years.

It is important to note that entry to the program does not require a formal referral from a physician and that even self or family referrals are accepted for assessment. An important proportion of services are meant to be provided in the community, thus the program accepts all referrals within our catchment area as well as some cases from within a distance of a 30 minute drive from the program’s location. A screening clinician responds to referrals within 48-72 hours through an initial screening assessment to ascertain the probability of a psychotic disorder followed by a full psychiatric assessment.

As per guidelines of what constitutes a SEI service the treatment program at PEPP-Montreal incorporates an asser-
tive community based clinical case management model modified to address the needs of a younger and culturally diverse population that is generally naïve to the mental health system. Each client is assigned to a case manager that is primarily responsible for the overall clinical management of the young person for the duration of time in the program (2 years), with caseloads increasing at the rate of one client per month. The principles of clinical case management used in our model are comparable to those defined by Kanter [18] and have been described in greater detail elsewhere [24]. At the time of initial assessment, assertive engagement of the client in the program is regarded as the main priority.

Comprehensive treatment includes a flexible protocol of low dose novel antipsychotic medications and a range of psychosocial interventions. Clients are carefully monitored for symptoms, medication adherence and level of functioning through assertive case management. Group and individual interventions are directed at improving social/personal skills and self-efficacy, and cognitive behavioral therapy is used to address post- psychotic dysphoria and residual psychotic symptoms. Family members are offered structured group psycho-education followed by individual intervention tailored to meet each family's needs. Families are invited to participate in the assessment and treatment process and clinicians make assertive efforts to engage close family members to the service as soon as possible. For further details on the program model, the reader is referred to the following two websites: http://pepp.ca and http://douglas.qc.caclinical-services/adultsspecializedpepp/.

Case identification intervention based on principles of “academic detailing”:

Our targeted case identification program is based upon “academic detailing”, a form of interactive educational outreach utilized to influence referral sources in their patterns of referral. Academic detailing consists of personal visits to primary health and education services in their own settings [38] and provides an opportunity to incorporate the needs and motivation of a small group of community health or educational service providers. This process facilitates tailoring the educational intervention by considering barriers and motivational readiness of the targeted audience and the specific environment. Critical components of academic detailing intervention include: direct contact with primary health care professionals; use of multiples sources for the content of what is being taught, including visual material; involvement of “experts” and feedback from, and discourse with, the targeted audience. Further, such interventions need to be flexible and take into account the specific needs of each group of primary care professionals.

Several reviews of the impact of academic detailing on practice patterns of primary care practitioners concerning other disorders have been reported [9, 14, 35, 39]. Moreover, recent studies directed especially at mental health or addiction problems support the use of multiple methods of education and academic detailing with results including an increase in capacity to recognize mental disorders such as depression [2, 11, 12, 13]. A recent study conducted in Birmingham (England) demonstrated that family physicians’ skills and knowledge associated with identification of FEP can be improved significantly through academic detailing consisting of learning material delivered by filmed depiction of the presentation of FEP, information regarding early signs and symptoms of psychosis from an expert, and demonstration of interview techniques to explore symptoms with patient and/or family [20].

Implementation

Given the way that community health services are organized in Quebec, we target audiences from multiple disciplines working in primary health care and the educational sector rather than confine it to family physicians. First, all primary health care and relevant educational settings (CLSCs, student health services, emergency departments, etc.) within a defined region are identified and provided with brochures describing the services offered by PEPP-Montreal, method of referral, and the criteria for admission. Second, referral sources are contacted and informed about the targeted case identification program and invited to participate; to date most services have agreed to participate. At a scheduled time that meets the needs of both services, a senior PEPP-Montreal clinician and the screening clinician, accompanied by the project research coordinator go onsite to provide the academic detailing intervention.

The presentation is preceded by asking the participants to complete a brief questionnaire on knowledge about psychosis with special emphasis on recognition of early signs and symptoms. This is followed by brief didactic information about early psychosis, and potential benefits of early and comprehensive treatment. Signs of early and established psychosis are provided through film and discussion. Using a portable DVD player and projector, two 12-minute films (each filmed separately in English and French) are shown. The films illustrate several profiles of a potential male and a female patient within a family setting who is developing signs or behaviours indicative of psychosis. The profiles show an enactment of the nature of delusions, hallucinations, and disorganization of thought and behavior at early stages of psychosis and the significance of negative symptoms (such as flat affect, poverty of thought and emotional withdrawal) in the context of family life.

The vignettes were prepared and produced by the program’s senior clinicians who have extensive experience in FEP and professional actors were utilized to depict the scenarios. In addition, the profiles are also based on a search of narratives of patients with FEP, data about patient characteristics of those whose treatment was delayed from our earlier study, material obtained from the “Redirect” program in Birmingham, England (Lester and Birchwood, personal communication, 2004) and focus groups conducted with staff who assess young patients with FEP on a regular basis. These films have been reviewed by some of the family members of patients already receiving treatment at PEPP-Montreal and by family organizations such as AMI (Alliance of the Mentally Ill) Quebec, all of whom rated them as most informative.

The team’s presentation emphasizes the variation and subtlety of symptoms and behaviors associated with psy-
chosis. Information drawn from research related to help seeking behaviours as well as clinical experience in FEP is used to support this process. For example, it could be presumed that clients would seek help due to more typically recognizable symptoms of psychosis such as hallucinations, delusions, and bizarre behaviour. However, it has been shown that young clients experiencing a FEP do not recognize needing help [10] and if they do, help seeking is often related to other concerns which are not specific to psychosis, such as depression, disruption of functioning, anxiety or stress [1]. Another topic, supported by Canadian research, that is discussed with the audience is that 45% of FEP patients present with primary negative symptoms such as social withdrawal and this may mask positive symptoms of psychosis [23, 26].

The intervention also involves a discussion around the significance of cognitive problems, poor social and educational adjustment during early adolescence, positive family history of psychosis or other serious mental disorders including manic depressive illness in first and second degree relatives, and the role of substance use in early psychosis. Information provided to the audience regarding delays experienced by FEP patients is based on our own and other data reported in the literature, some of which has been reviewed above. Professionals in primary health care and educational settings (e.g., CLSC) are informed of the need to be particularly mindful when a young person who has seldom seen a health practitioner presents with the above described characteristics or is brought in by his/her family.

The presentation is followed by discussion and feedback with the primary care professionals; given their experience, the presenters are able to answer any questions regarding early signs of psychosis and its treatment. The entire session takes approximately 60-90 minutes and is modified according to the needs of each audience. In addition, the professionals in these settings have direct face to face contact with the program screening clinician who responds to all referral requests from the primary care setting, conducts all assessments in collaboration with the referring professionals, and is available for any of their enquiries about potential referrals following the onsite visit. The primary care professionals are provided with written information regarding early signs of psychosis in the form of a writing pad and a criteria checklist which has all the contact information about PEPP-Montreal and the screening clinician.

Each potential source of referral is contacted within a week after the presentation to ask whether there is any need for clarification. Thereafter, phone contact is made once a month as a reminder of the availability of the service and additional information is offered, if required. It is likely that the effect of training and academic detailing may reduce after a period of time; therefore our intervention also involves booster sessions, such that each referral setting is offered a booster presentation at six-month intervals for the duration of the study and has access to the intervention team at any time.

It must be noted that this intervention is not sufficient for primary care providers to always be able to definitively identify the presence of psychosis. Rather, the intervention aims to increase skills in recognizing the potential signs of psychosis and, when appropriate, contact the screening clinician for further advice and possible expert assessment. This targeted intervention is provided within the context of availability of a prompt assessment by a specialized intervention program, which is carried out at the location of a client’s preference (with or without the presence of the referring professional, depending on the client’s choice). In cases where the individual is not suffering from FEP, PEPP-Montreal staff (in collaboration with the referring source) facilitate referral to a more appropriate service including CAYR (Clinic for Assessment of Youth at Risk), a clinic attached to PEPP-Montreal which provides assessment, support, treatment for non-psychotic conditions, and follow up to individuals who meet criteria for being at high risk of developing a psychosis. The evaluation of this program is currently being completed and will be reported at a later date.

Conclusion

The onset of psychosis typically occurs during adolescence or early adulthood and can seriously derail a young person’s life by interfering with social and emotional maturation and important life transitions to higher education, employment, marriage and parenthood. Given the negative consequences associated with treatment delay and the importance of the early “critical” phase of the illness in setting up trajectories of outcome, the delivery of services to young people with first onset of psychosis is now clearly identified as a priority in many jurisdictions with special emphasis on timely access and comprehensive treatment. The benefits of a specialized approach such as this have now been well documented at least for the first two years while the interventions are active.

A necessary first step in reducing treatment delay involves taking advantage of our knowledge of pathways to care and existing health care systems. Studies about pathways to care for FEP suggest that a significant delay in treatment occurs following a young person’s attempt to seek help through primary health care services. Therefore, if specific case identification interventions are targeted at principal points of contact in patients’ pathways to care (e.g., primary health care and educational services), we might be able to successfully alter the pathway to adequate care and thereby reduce such delay. The importance of focusing on interaction between primary health care and specialist care in identification, assessment, and treatment of severe mental disorders is also echoed in recent provincial mental health action plan initiatives.

Our knowledge about pathways to care is also sufficient to promote specific types of interventions and processes needed to reduce treatment delay. The early case identification program described in this paper targets primary care, incorporates academic detailing, is delivered in the
context of a specialized community oriented early intervention service, and is currently being evaluated for outcome on DUP.

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