AN INTRODUCTION TO

Early Psychosis Intervention

Some Relevant Findings & Emerging Practices

CANADIAN MENTAL HEALTH ASSOCIATION
L'ASSOCIATION CANADIENNE POUR LA SANTÉ MENTALE

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Youth and Mental Illness: Early Intervention

Some Relevant Findings and Emerging Practices

Context

This document has been prepared as part of the CMHA National's project: *Youth and Mental Illness: Early Intervention*. The project is a 19 month initiative running until the end of August 2000. Its purpose is to raise awareness about first episode psychosis in youth and the need for early and effective intervention in order to reduce the severity of illness and improve the capacity for full recovery and an optimal quality of life.

The purpose of this document is to provide an overview of early psychosis intervention concepts and recent findings. It is intended as a user-friendly introduction and does not attempt to provide a critical analysis of the conceptual and methodological complexities that are inherent to the field. Interested readers are advised to consult the referenced literature for more in-depth reading on various aspects of early psychosis intervention.

While there is a growing body of literature devoted specifically to first episode psychosis, accumulated findings from a large body of schizophrenia research have informed the development of current approaches to early psychosis intervention. A recent review of long-term outcomes and factors that can affect them reports that more than 50% of patients with schizophrenia continue to experience moderate levels of positive and negative symptoms, social and interpersonal withdrawal, and require long-term support and occasional hospitalizations (Malla et al.,1999). A limited number of the variables predicting outcome appear modifiable – duration of untreated psychosis (DUP), family atmosphere and substance abuse.

Studies demonstrating a significant relationship between the reduction of DUP and improved outcomes have been a real impetus to early intervention initiatives, although cause and effect have not yet been established. Promoting a reduction of DUP in adolescents is central to the purpose of the present CMHA project.

Research and clinical practice continue to evolve at an international level. Studies of long term outcomes are in progress. It is still too early to assess the long term effectiveness of early intervention strategies, but preliminary results are encouraging (Falloon et al., 1998). This paper concludes with an introduction to Canadian early psychosis intervention programs.

Introduction

'Early psychosis intervention' refers to current approaches to the treatment of psychosis that emphasize the importance of both the timing and types of intervention provided to persons experiencing a first episode of psychosis. 'Early' is as early as possible following the onset of psychotic symptoms; the 'intervention' is comprehensive, intensive, phase specific and individualized. In this paper, reference to early intervention practices refers to current trends in the field of early psychosis intervention research and clinical practice. Clinical practice continues to evolve in response to ongoing research that can form the basis for evidence-based best practices.

The use of the term 'psychosis' is itself significant. Studies indicate that a majority of first episode cases represent schizophrenia or other schizophrenia spectrum disorders (Edwards et al., 1998; Power et al., 1998). But, at the time of the first episode, the course of the illness is not known and it is the psychosis that demands immediate treatment. A definitive diagnosis is considered both conceptually premature and clinically unnecessary. It is only with time that the long-term implications of the psychosis will emerge. In the early stages of illness, use of the term 'psychosis' is encouraged, because it both offers the most accurate description, and helps to avoid the stigma and fear that can be associated with a diagnosis of schizophrenia (McGorry et al., 1997).

Typically, there is a wide range of outcomes associated with schizophrenia. While it has been estimated that approximately 20% of people with schizophrenia fully recover, another 15% become chronically disabled by the illness (Linszen et al., 1998). According to a 1998 report prepared by the Canadian Coordinating Office for Health Technology Assessment (CCOHTA), 300,000 Canadians between 16 and 30 years of age suffer from schizophrenia. Approximately 70,000 Canadians require ongoing drug therapy to prevent relapse. Overall costs of the disease are estimated at $2.3 billion in direct costs plus an additional $2 billion in indirect costs annually. Schizophrenia accounts for the use of 1 in 12 hospital beds in Canada. The direct costs are largely attributable to time in hospital; appropriate application of early intervention strategies tends to reduce the number of admissions and the length of hospital stay. One of the problems in our understanding of the potential for recovery has been the fact that past studies have often focused only on hospitalized populations, thus excluding a proportion of first episode, non-hospitalized cases (Power et al., 1998).

The incidence rate of first episode psychosis is estimated to be 15 to 20 cases per 100,000. Schizophrenia is estimated to occur at a rate of 12 to 15 per 100,000. Approximately 1% of the population will develop schizophrenia during their lifetime. While schizophrenia affects equal numbers of males and females, its onset tends to be earlier in males - usually in the mid to late teens or early twenties. Female onset tends to appear in the early twenties through the early thirties. The emergence of psychosis during adolescence or young adulthood has the potential to seriously alter life trajectories: psychosis can derail young lives.

> *When a major psychiatric disorder such as a psychosis strikes during this life stage there is the potential for personal disaster - maturation may be put on hold, social and family relationships can be strained or severed, and vocational prospects are frequently derailed. Secondary problems, such as unemployment, substance abuse, depression, self-harm and law breaking, frequently develop or intensify.*
>
> *(Edwards & McGorry, 1998, p. 168)*

The emergence of psychosis at this key developmental stage argues not only for interventions appropriate to phase of illness, but also for interventions that are responsive to this stage of life.

Studies of optimal treatment of first episode cases are reason for hope. For example, one study reported 74% fully remitted with neuroleptic treatment (mean time to remission of 36 weeks) (Lieberman et al., 1992). And early psychosis programs have demonstrated the capacity to substantially reduce the need for inpatient care (McGorry et al., 1998).

The Goal of Early Intervention

The goal of early intervention is to improve outcomes by promoting as full a recovery as possible thereby reducing the long term disability and costs - both human and economic - associated with schizophrenia. To achieve this, early intervention strategies are designed to limit the duration of the psychosis - prior to and during treatment - and prevent relapse.

Early Psychosis - Etiology

Psychosis is a brain disorder that manifests as a loss of contact with reality. The main symptoms of psychosis include hallucinations, delusions and/or disorganized thinking. While the underlying cause of psychosis and schizophrenia remains unknown, their emergence is considered to be multi-factored. Understanding of the illness is based on a biopsychosocial model - acknowledging the potential contributions from, and interactions of biological, psychological and social factors in the development of psychiatric disorder.

For example, the risk of developing schizophrenia is increased if one or more family members have themselves experienced the illness. Risk is 10% that a child will develop schizophrenia if one parent has had the illness. In the case of identical twins, if schizophrenia has emerged for one, there is a 40% chance that the other will also become ill. That is, in four out of ten cases, both twins will develop the illness. But that also means that in six out of ten cases of identical twins, only one of the twins will become ill. In addition, 85% of people who develop schizophrenia do not have a first-degree relative with the disease (McGlashan et al., 1996).

The current explanatory models are based on variants of a stress-vulnerability hypothesis. The onset of illness, severity of illness, and the propensity for relapse are

viewed as the result of an interaction of one or more environmental stressors with an inherent biological vulnerability that has arisen as a result of genetic predisposition, or of pre- or peri-natal factors (see discussion in Norman & Malla, 1993a, 1993b). Stressors could include drug use, or situational life stresses from home or school. Drug use frequently appears as a factor associated with the first episode and with relapse (Addington et al., 1998; Linszen et al., 1998).

Evidence for a model of stress-vulnerability as the underlying pathway to schizophrenia is summarized by McGlashan et al. (1996). The model presented by Mueser and Glynn (1995) suggests that a number of possible protective factors, including coping skills, a supportive environment and appropriate medication, can moderate the impact of the stressors and reduce the vulnerability. The interaction of level of vulnerability with level of stress and the extent of protective factors will determine the onset and severity of the illness.

Early Psychosis - Phases of Illness

First episode psychosis can be conceptualized as having four phases: prodromal, acute, early recovery and late recovery. The following description of the phases of first episode psychosis is largely adapted from the *Australian Clinical Guidelines* which were developed on the basis of clinical/research evidence and consensus of experts in the field (National Early Psychosis Project Working Party, 1998); and from McGorry and Edwards (1997).

The Prodrome

The prodromal phase is a period prior to the development of psychotic symptoms which may be identified retrospectively. That is, in hindsight, most people who experience psychosis can recall early warning signs or symptoms that preceded the psychosis itself. A number of these changes have been associated with the development of early psychosis. They include: suspiciousness, depression anxiety, tension, irritability, mood swings, anger, sleep disturbances, appetite changes, loss of energy or motivation, memory problems, perceptual changes, deterioration of work or study habits, social withdrawal, and unusual beliefs.

As the list denotes, prodromal indicators in themselves may appear difficult to interpret and distinguish from transient states associated with many developmental and/or life circumstances, stages or conditions. These indicators take on greater meaning as prodromal indicators if the person experiencing them also demonstrates a higher risk profile by virtue of their family or developmental history. The prodrome and its capacity to predict early psychosis presently constitute an area of much research activity.

Acute Phase

This phase is characterized by the experience of hallucinations, delusions and marked thought disorder. It is usually during this phase that the person will present for treatment. Treatment will typically include the use of anti-psychotic medication. It is during the acute phase that hospitalization may be necessary. The goals of treatment include resolution of the psychosis; prevention or treatment of accompanying

conditions (when present), such as substance abuse; and promotion of adjustment and psychosocial recovery.

Early Recovery Phase

This phase is considered to be the first six months following acute treatment. The focus during this phase is on the development of an individualized psychosocial framework for further recovery as the remission of positive symptoms proceeds. Interventions include individual and family counselling, and other cognitive and skills-based therapies .

Late Recovery Phase

This phase is viewed as following the early recovery phase for an additional six to 18 months. At this point, decisions must be made according to individual need in terms of length of maintenance medication and other treatment supports. The goal is to continue to promote full recovery and prevent relapse. Relapse rates of 50% within ten months following the end of medication have been reported for first episode cases.

Generally, the first five years following onset of psychosis are viewed as a critical period for recovery. The overall goal of the recovery phases is to assist clients in understanding their illness and in developing the skills they will need to move ahead with life goals.

Duration of Untreated Psychosis (DUP)

Essentially, psychosis is a traumatic neurological event - like an internal assault on the brain. One young person who has experienced psychosis described it as his head 'exploding'. Yet the time lag between the onset of psychotic symptoms and the start of treatment is often extensive. At the same time, there is convincing evidence that the longer the duration of untreated psychosis, the poorer the outcomes.

A study often cited in this regard is that of Loebel et al. (1992). This prospective study followed 70 first episode patients for 2 years. Independent variables were DUP and DUI (duration of untreated illness, i.e., psychosis plus prodrome). Dependent variables were time to remission and level of remission. The mean DUI was 151 weeks with a mean DUP of 52 weeks. DUP was significantly related to both dependent variables: longer DUP predicted greater time to remission and lower level of remission. Lengthier DUI was also related to lower level of remission. The findings further illustrate the lengthy period of time that psychosis can remain untreated. Resistance to treatment also appears exacerbated with extended DUP (Edwards et al., 1998). On the other hand, data have indicated improved recovery and rate of recovery are related to shorter periods of DUP (McGorry et al., 1996).

DUP is likely to be prolonged in cases of slow onset where detection is likely to be delayed, which presents a greater challenge to early intervention efforts (Falloon et al., 1998). In a small scale, case comparison of patients with schizophrenia who had experienced long (244 weeks ave.) vs. short (15 weeks ave.) DUP, the onset of illness for the long DUP group was more insidious - less acute, so that changes in

functioning were less noticeable. As well, for the long DUP group, withdrawal and a poor social network appear as significant barriers to entering treatment (Larsen et al., 1998). Other factors influencing DUP include social/cultural factors such as stigma, accessibility of care, skills and knowledge of care providers, and the degree to which families, friends and the person themselves perceive a problem (Malla et al., 1999).

In an effort to understand treatment delays, some studies have analyzed the pathways to care: once a problem is noticed, how do people seek help? Pathways are highly variable and individual. However, it appears that general practitioners along with family and friends play important roles along the help-seeking road to recovery (Lincoln et al., 1998).

Critical Period

Further, there is growing evidence that untreated psychosis is 'toxic' – that left untreated, neurological damage progresses. The concept of a 'critical period' in the development and progression of psychosis is a strong argument in favour of early intervention and supports the need to reduce the duration of untreated psychosis (DUP).

Traditionally, interventions in psychosis have been "blind to the phase and age of illness" (Birchwood et al., 1998, p. 53). Birchwood et al. summarize evidence in support of the proposition that "the early phase of psychosis is a major influence [on the course of illness] and that the early phase of psychosis is a 'critical period' with major implications for secondary prevention of the impairments and disabilities that accompany psychosis" (p. 53). The evidence includes the following findings:

> "the best predictor of social outcome is an earlier measure of social functioning" (p. 53), which suggests the importance of preserving or recovering social functioning capacity at the earliest possible point;
>
> the 'plateau effect': research suggests that deterioration occurs in both the "pre-psychotic period and early in the course of psychosis (treated and untreated)" (p.54), but this may stabilize at between two and five years "and may even relent among those who initially deteriorate most";
>
> early relapse: despite definitional differences between studies and other methodological issues, Birchwood et al. suggest that relapse rates within the first two years range between 30% and 60%;
>
> long-term outcome: approximately 50% of first episode psychoses demonstrate 'favourable clinical and social outcomes'.
>
> suicide: suicide rates observed in the population of people with schizophrenia range from 8 to 15%. Risk is greatest for young males with higher IQ/education. The greatest risk period is within the few years immediately following first presentation.

The authors conclude that the evidence supports the notion that in cases "where deterioration occurs, it does so aggressively in the first 2 to 3 years; and that critical psychosocial influences, including family and psychological reactions to psychosis and psychiatric services, develop during this period" (p. 53).

McGlashan et al. (1996) also discuss the importance of recognizing various phases of schizophrenia and their concomitant impacts in terms of implications for treatment. In summarizing a review of the natural history of schizophrenia, they note the tendency for positive symptoms to predominate in early episodes, with both positive and negative symptoms being unstable and largely treatment responsive. Negative symptoms are more common and more stable in subacute/subchronic stages. Finally, negative symptoms tend to be stable and predominate in later stages. Responsivity to treatment tends to decline with each successive episode (Lieberman et al., 1996).

Early Psychosis Intervention

Identifying cases early is the first step, but the overall aim is to reduce the 'duration of active psychosis' (Edwards et al., 1998). "… detecting an illness early is of value only if effective treatment is readily available" (Falloon et al., 1998, p. 33). While the long term effectiveness of first episode interventions remains to be proven, a number of strategies are well established in their capacity to improve outcomes of existing schizophrenic disorders. Broadly, these include neuroleptic treatments in combination with psychosocial interventions (Falloon et al., 1998).

McGlashan et al. (1996) refer to Lehman et al. (1995) and their exhaustive review of treatment data. The Patient Outcome Research Team (PORT) program concluded that three forms of treatment "have demonstrated significant efficacy in clinical trials: (1) antipsychotic medications, (2) family education and support; and (3) programs of assertive community treatment" (p. 202). At the time of writing, McGlashan et al. (1996) cautioned that all 'effective' treatments seem to be effective "only as long as they are actively used" (p. 202).

Neuroleptic Medications

The use of antipsychotic medications is well-established as an essential component in the treatment of psychosis. They are used both to control active symptoms, and to prevent relapse (Sheitman et al., 1997).

The cornerstone of current approaches to early psychosis intervention is the use of low-dose neuroleptics. Traditional neuroleptics such as haloperidol (Haldol®) or chlorpromazine (Thorazine®), while effective in ameliorating positive symptoms of psychosis, were often prescribed in higher than necessary doses, and too often were accompanied by unwelcome side effects including extrapyramidal symptoms (EPS). Up to 30% of people with schizophrenia either do not respond to traditional neuroleptics or experience debilitating side effects.

A very important development during the past 10 years has been the emergence of the 'atypical' neuroleptics - a new class of medications that are effective in treating the positive symptoms and, to a greater extent, the negative symptoms of psychosis,

with significantly reduced side effects. Negative symptoms can severely limit a person's recovery and tend to become more persistent with recurring episodes of psychosis.

In Canada, available atypicals include risperidone (Risperdal®), olanzapine (Zyprexa®) and quetiapine (Seroquel®). Clozapine (Clozaril®) is also in use, though it is not a first-line medication in first episode psychosis. Rather, it is reserved for use in otherwise treatment resistant cases, or for those who exhibit severe EPS.

The initial choice of medication is based on the clinical assessment of the client in relation to a given medication's profile and the clinician's experience with the medications. Dosage varies depending on the medication and in relation to an individual's response. So, for example, a daily dosage of risperidone might range from 0.5 mg to 6 mg, whereas quetiapine might be prescribed in an amount ranging from 25 to 800 mg daily, and olanzapine in daily doses ranging from 5 to 20 mg.

But regardless of the medication chosen, the maxim is: 'start low - go slow'. At the first episode of psychosis, the person is 'neuroleptic naï ve'; that is, they have not been previously exposed to antipsychotic medications. Studies indicate that first episode cases respond readily to low doses of medication, and can in fact be sensitive to side effects (especially EPS) even in the atypicals at higher doses (Kopala et al., 1997).

However, the atypicals are not without side effects other than EPS. One common side effect of the atypicals, particularly olanzapine, can be unwanted weight gain. So while many of the side effects associated with earlier medications, such as EPS, mitigated against patient compliance, the reality is that weight gain too can discourage a person from taking their medications.

Compliance is viewed as crucial - not just to ameliorate immediate symptoms, but to prevent relapse. But compliance is not easy - particularly for a young person who starts to feel well again and/or is displeased with side effects. In a review of first episode treatment studies, Sheitman et al. (1997) supports the continuation of maintenance treatment for one to two years in conjunction with psychosocial strategies, particularly psychoeducation for patient and family. Continuation of medication has been reported to reduce the rate of recurrence in the first year from approximately 70% to 30% - 40% (Falloon & Shanahan, 1990). A person who has experienced several episodes may be advised to maintain their medication indefinitely.

Psychosocial Interventions

Studies during the early 1970s began to demonstrate the impact of psychosocial interventions on relapse prevention when they were added to a regimen of antipsychotic medication. In studies of one year relapse rates, the combined use of the two treatment approaches resulted in a relapse rate of 9% (Hirsch et al., 1973), compared to 30% in a study using medication only (Leff and Wing, 1971).

Linszen et al. (1998) suggest four reasons for the growth of interest in the potential benefits of psychosocial intervention through the 1970s and 80s: problems of compliance regarding maintenance of antipsychotic medication (mainly due to unpleasant side effects); persistence of negative symptoms, limited social recovery

and/or treatment resistance; deinstitutionalization, with greater emphasis on the family's role in recovery; and, development of the concept of 'expressed emotion' and research findings which pointed to the importance of the family's emotional/ attitudinal environment to the recovery of the patient.

Current approaches to the clinical practice and study of psychosocial interventions reflect the stress-vulnerability model. According to Falloon et al. (1996), "the aim of the new psychosocial strategies is to reduce the impact of environmental stresses on biologically vulnerable people while promoting their social functioning in the community" (p. 3). While neuroleptics are used to control the primary symptoms of psychosis - namely, the hallucinations, delusions and thought disorder - psychosocial interventions help to educate, train and rehabilitate the client to facilitate a full functional recovery. Specifically, psychosocial interventions help the young person to regain their capacity for psychological well-being, social and occupational participation and improved quality of life in general. Key components include psychoeducation and family engagement.

Psychoeducation assists the young person and their family in understanding psychosis as a brain disorder. It can teach both coping and problem-solving skills to better assist the individual and their family members in dealing with the possible manifestations of the illness and thus promote improved outcomes.

An analysis of the results of 15 controlled studies of the effects of various combinations of treatments on people with schizophrenia demonstrated that the rate of 'poor outcomes' (e.g., relapse, suicide, withdrawal from program) over a one year period declined from 54% to 27% when family education was added to case management with sustained medication (Falloon et al., 1996). Further decreases in poor outcomes were seen when problem solving and social skills training were also included. Social skills training appeared to have the second largest impact next to family education. The full complement of treatments (case management, family education, problem solving and social skills) reduced the one year poor outcome rate to 14%. The benefit of psychosocial interventions was "most notable during the first year after a major schizophrenic episode" (p. 4).

There are variations in the focus and details of the psychosocial interventions developed. In regards to the clinical management of schizophrenia, Falloon et al. (1998) suggest that an optimal treatment strategy would integrate the following components:

> Comprehensive, assertive case management based on individual needs of the individual and their caregivers;
>
> Neuroleptic drugs targeted to changing needs;
>
> Education of patients and informal caregivers about biomedical and psychosocial aspects of schizophrenia and its integrated clinical management;
>
> Carer-based stress management to enhance efficiency of coping;

Mobile intensive crisis management;

Living skills training to enhance social functioning and achievement of personal goals;

Specific drug and cognitive-behavioural strategies for specific problems.

It should be emphasized that, while useful as a guide, interventions that have proved efficacious with older and/or more chronic populations require adaptation and evaluation for effectiveness in a young, first episode population. This population not only represents a unique developmental stage, but is naï ve in terms of neuroleptic use and system exposure, and appears highly sensitive to the impacts of both (Malla & Norman, 1999). Approaches to treatment must consider these differences in order to develop and deliver effective interventions.

Early Psychosis Intervention Models: EPPIC

The Early Psychosis Prevention and Intervention Centre (EPPIC) in Melbourne, Australia stands as an international leader in the field. One of its aims is to provide a model for the optimal management of first episode psychosis. The following description of EPPIC is taken from McGorry and Edwards (1998) and Power et al. (1998).

EPPIC began operation in 1992, designed to offer a 'real world' model for the management of first-episode psychosis for young people aged 16 to 30. Its catchment area covers a population of 800,000, including a high percentage of recent immigrants, low income families and unemployed. Services through EPPIC are provided for up to two years and include a comprehensive range of community-based and in-patient programming.

EPPIC receives approximately 500 referrals annually, of which 300 are formally assessed and 200 to 250 cases are accepted for treatment and follow-up. The number of in-patient beds is 14 (reduced from 21). EPPIC aims to minimize hospital use, utilize as low a dose of neuroleptics as is effective (2-5 mg haloperidol equivalents per day), and minimize the use of potentially traumatic in-patient practices, such as seclusion and restraint.

There are a number of program components:

Early Psychosis Assessment and Community Treatment team (EPACT) - 24 hour service responsible for intake - may start treatment

Outpatient Case Management programme

Inpatient Unit

Family Work

Cognitive Oriented Psychotherapy for Early Psychosis (COPE)

Treatment Resistance Early Assessment Team (TREAT)

Systematic Treatment of Persistent Positive Symptoms (STOPP)

Group Programme for both acute and recovery cases

LIFESPAN program - brief cognitive therapy for those at extreme risk of suicide

Personal Assessment and Crisis Evaluation (PACE) Clinic - evaluation and follow up of potentially prodromal cases

Though methodological issues limit interpretation, a comparison of a sample of EPPIC clients with a pre-EPPIC sample indicates that at 12 months, the EPPIC program evidenced reduced hospital stays in frequency and duration, reduced levels of negative symptoms, lower doses of neuroleptics and improved quality of life scores (McGorry et al., 1996).

The EPPIC system is constantly evolving. Comparison of the results from this period with later samples demonstrate continuing improvements (Power et al., 1998). Measurements at three months indicate the proportion of clients hospitalized was reduced from 84% to 63%; number of inpatient days was decreased from a mean of 50 to 18 days; and neuroleptic dosages were reduced without compromising clinical outcomes. The more recent results provide evidence that with proper assessment and treatment, over 30% of people with first episode psychosis can remain in the community during the acute phase of illness. As well, through the community education efforts of EPACT, the proportion of referrals from family and friends increased from 10% in the first six months of operation to 25% in the second six months. Similarly, GP referrals increased from 5% to 10% (Edwards et al., 1998).

Future Directions: The Prodrome

As noted, attempts are underway to identify cases at the pre-psychotic or prodromal stage of illness to further prevent, reduce or delay the impact of psychosis. One of the key issues in the field at present is the lack of a sufficiently concise operational definition of the prodrome that will avoid the accumulation of false positives.

McGlashan et al. (1996) describe the work of Falloon (1992) who was the first to attempt delivery of treatment prior to illness onset. The project was carried out in Buckingham County, England between 1984 and 1989. Since 16 family physicians were largely responsible for the medical and psychiatric needs of the population of 35,000, these practitioners were trained to recognize prodromal symptoms and refer cases to their respective mental health teams. Initial evaluations were conducted within minutes or hours of the referral, usually at the client's home. If the client appeared to exhibit prodromal features, a more comprehensive assessment ensued. Prodromal cases were provided with education and home-based stress management support. Neuroleptics were provided in low doses (thioridazine or chlorpromazine, 25-100 mg daily) for short periods (seldom more than two weeks), as symptoms

warranted. Out of more than 1000 adults referred, 16 cases were suggestive of prodromal states. The one person identified as having an acute first episode psychosis consistent with schizophrenia was treated on an outpatient basis with low-dose neuroleptics and stress management, and her symptoms remitted within 4 weeks. The other 15 cases followed various courses of treatment dependent upon their needs and also demonstrated recovery.

Recent large scale prospective studies have attempted to explicate early prodromal signs of schizophrenia (Murray, 1999). In childhood, predictive signs included solitary behaviour, a five point lag in average IQ, minor problems with coordination, and greater tendencies to social anxiety. According to Murray, "although the people in our sample didn't become psychotic until their early 20s, they were deviant from age 6 and became more abnormal as they approached adolescence. Psychosis does not suddenly erupt at age 22 or 23" (p. 9).

Internationally, there are now a number of prodromal research clinics operating in an attempt to refine the parameters of the prodrome and establish appropriate and effective interventions. At this stage, ethical questions remain regarding the use of antipsychotic medications with persons exhibiting prodromal symptoms outside of a research setting.

Emerging best practices

This review has attempted to provide an introduction to the field of early psychosis intervention. In so doing, it has made reference to what are aspects or examples of current 'best' practices. As research continues, we are likely to see the refinement of actual practice to reflect accumulated evidence.

In summary, best practice starts with the terminology 'early psychosis intervention' itself: the illness is psychosis, the intervention is appropriate to the individual, and it is initiated at the earliest possible point in time.

Key Elements of Early Intervention

Reduction of DUP through education

Raising psychosis awareness through educational initiatives with health professionals, teachers, families and community members is a necessary step towards the reduction of DUP. But an increased awareness of psychosis and its symptoms must be matched with a concomitant increase in access to appropriate treatment.

Assessment and the context of care: building a therapeutic alliance

Once a psychosis is suspected, careful and comprehensive assessment of the individual by skilled professionals is the next step. For many, this will be the individual's first contact with the

mental health system. This situation provides a significant opportunity for practitioners to begin to develop a positive, honest, mutually respectful relationship - a 'therapeutic alliance' - with the young client and their family. These values are viewed as key to the formation of an ongoing, productive therapeutic relationship.

Family engagement and support

Most young people experiencing psychosis for the first time are living in the family home. The family can play a significant role in promoting the recovery of their family member. But, in order to do so, the family too requires education, support and inclusion in the therapeutic process.

Comprehensive, phase-specific, individualized treatment including low dose neuroleptics, psychoeduction and psychosocial support

These three main components, when offered in the context of a therapeutic alliance with an attitude of 'realistic optimism' are demonstrating positive outcomes in the lives of young people who experience psychosis.

Prolonged engagement to sustain gains

Psychosis is a serious physiological event. Recovery takes time. Early psychosis intervention, even at its best, is not a magic bullet. In keeping with the notion of a critical period, and based on clinical observation and research, clients may need to receive services on an outpatient basis from an early psychosis clinical program for two years or more. No doubt, this leads to the issue of resource allocation.

Conclusion

The preceding has provided an overview of this complex and exciting area that is in a constant state of development and refinement. Evidence for current approaches to early intervention and the strategies being practiced is supported by a growing body of research including the findings regarding DUP, and the value of low dose neuroleptic treatments, education and psychosocial supports. Ongoing research is an additional crucial component of the early intervention landscape at this juncture.

Given the diverse course of illness following the first psychotic episode, including the heterogeneous nature of schizophrenia, it is unlikely that intervention strategies will ever represent a 'one size fits all' approach. Rather, there is likely to be a menu of strategies of proven efficacy that will be tailored by adept clinicians to fit the needs of each individual.

Ultimately, success will rest with the combined efforts of the community and skilled practitioners. In order to reduce DUP, the community at large, including professional

gatekeepers such as educators and family physicians, must be active participants in the early identification of youth with symptoms of psychosis. The community also has an important role to play in supporting the recovery of young people with psychosis. And without doubt, a knowledgeable and experienced clinical team with adequate resources is a crucial component of success. Working together, public and professional communities have a chance to realize the full potential of early intervention. While much remains to be known regarding the ultimate potential of early intervention to alter the long term course of schizophrenia, it is not too early to say: Early intervention is prevention.

Epilogue: The Canadian Context

Canada is a strong member of the international community in terms of its ongoing contributions to the research and practice of early psychosis intervention. There are established clinical/research sites in Alberta (Calgary), Ontario (London, Toronto) and Nova Scotia (Halifax). Research interests are wide-ranging and include the prodrome, pharmacotherapies, neurology, substance abuse, and psychosocial interventions, as well as offering critical contributions to the conceptual and operational development of the field in general. As a clinical site, the Psychotic Disorders Team at McMaster (Hamilton, Ontario) is also recognized for its commitment to the principles of early intervention. The present CMHA project represents a natural partner to these clinical/research activities in the pursuit of secondary prevention.

GLOSSARY

Positive symptoms

hallucinations

delusions

Disorganized symptoms

confused thinking and disorganized speech

disorganized behaviour

Negative symptoms

flat or blunted emotions

lack of motivation or energy

lack of interest in things

limited speech

Extrapyramidal side effects

restlessness, agitation, muscle rigidity, tremors, Parkinson's-like symptoms

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