

Early Intervention Programs Demonstrate Effectiveness in Increasing Recovery

Key Points and Findings

- Early intervention programs aim to **detect symptoms** during the onset of schizophrenia or related disorders at the **earliest point possible** and begin appropriate treatment.
- Shortening the duration of untreated psychosis (DUP) to less than six months has resulted in **one-year remission rates ranging from 72%-85%**.
- Long DUP is associated with reduced treatment compliance, more negative symptoms, low quality of life scores, substance abuse, homelessness, and increase likelihood of secondary illness such as depression.
- Early intervention programs rely on two main strategies to reduce DUP: **community-based educational** programs that target the general population, youths, and healthcare professionals and easy treatment access through a **mobile outreach team**.
- The mobile outreach treatment team that consists of **psychiatrists, psychologists, nurses, and social workers** is assembled from existing outpatient facilities. The mobile team is responsible for assessments, some educational efforts, and outreaching to hard to reach populations.
- Successful outreach efforts to young adults and teens require mental health programs to establish consistent relationships between case managers and school counselors at high school and university settings.
- Proper treatment in early intervention programs consists of **atypical antipsychotics, individual and family psychoeducation, and individual psychosocial therapy**.
- Inpatient hospitalization duration is only necessary during acute phases of illness. Preliminary research illustrates that if DUP is short, the use of hospitalization is significantly reduced, typically by at least one-half.
- Family involvement is seen as critical to successfully deterring relapse. Relapse rates among individuals with high stress family environments can be 50% higher.
- Individuals who undergo early intervention treatment programs **rate their quality of life 25% to 45% higher than those who do not**.
- **Reduced DUP** in conjunction with proper initial intensive community-based treatment is cost-effective not only because it reduces hospitalization and uses other integrated social services but also because it possibly reduces the long-term disability of severe mental illness.

Introduction

In the mental health community, attitudes about the prevention of severe mental illness, particularly schizophrenia, are changing as researchers provide evidence that early intervention reduces disability. Schizophrenia has received the most attention because this severe mental illness represents the largest cost to society and the highest level of imposed disability.

This report will show that there have been multiple studies about untreated psychosis in first-episode cases that have revealed that patients are often actively psychotic for a very long time before they get help. The length of the duration of untreated psychosis (*commonly referred to as DUP*) has been associated with a slower and less complete recovery with subjects. These subjects benefit less from maintenance anti-psychotics, have an increased risk of relapse, and express substantial treatment resistance.

The purpose of this report is to offer a brief overview of the early intervention programs taking place at an international level in order to demonstrate how these effective strategies can be incorporated into AB34 programs in California. Pilot studies in communities located in Australia, Norway, and Canada have designed early intervention programs that use similar strategies already in place in AB34 programs, such as mobile outreach teams and integrated treatment systems. Although the long-term assessment of early intervention programs is not available yet, this report will argue that short-term results demonstrate effectiveness that deserves replication. This can be accomplished through an expansion of AB34 programs, going one step further and outreaching to young adults who are often still living with their families. Similar to other international programs, educational efforts can advocate for the early and effective treatment of a range of mental health problems, not just schizophrenia.

First, early intervention is defined as a concept, highlighting the effectiveness of early treatment in schizophrenia or psychosis-related disorders. Second, current early intervention programs are explored, stressing two main strategies for getting symptomatic individuals into treatment as soon as possible – reducing stigma and conducting community outreach. Third, the elements of treatment are addressed; demonstrating cost reductions not only due to increases in positive outcomes among participants but also because more treatment takes place within a community setting. Lastly, shortcomings in current research are identified, presenting what evidence will soon be available from studies that are now underway. At this point, we will make the recommendation that AB34 programs should expand to offer early intervention strategies that include an educational outreach component. We recommend that efforts be made to actively raise the awareness of community members, particularly among target populations such as families, youths, individuals who work with youths, and health professionals. In short, the success that California has seen with AB34 programs can be even far greater if we produce similar pilot early intervention programs. Educating individuals how to recognize symptoms early and seek treatment can alter the outcome rates of mental illness in the future - reducing cost, disability, and suffering because illness simply does not progress to levels that leave individual vulnerable to devastating statuses such as homelessness or incarceration.

Early Intervention – What Does Research Tell Us?

What is Early Intervention?

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Intervention efforts focus on initial psychosis, which is present during the onset of schizophrenia or related disorders such as schizophreniform psychosis and schizoaffective disorder. Early intervention seeks to uncover these disorders at the earliest point possible and begin appropriate treatment. The goal is to shorten the course of untreated psychosis and decrease the severity of an initial psychotic episode; this in turn minimizes complications that result from untreated psychosis. Treatment should begin at the first sign of a positive psychotic symptom.

What evidence do researchers have that illustrates that reducing the duration of untreated psychosis (DUP) can effectively change the outcome of severe mental illnesses like schizophrenia? Evidence suggests that if psychosis is effectively treated with a combination of anti-psychotic medication and psychosocial rehabilitation within community-based treatment during the first six months of the onset of psychotic symptoms than alterations that occur in brain tissue during the course of schizophrenia may be slowed, weakened, or even halted. The goal of early intervention is to treat psychosis before this process of toxicity occurs. For example, a 1996 study of 118 first-episode patients found that first-episode patients treated with conventional anti-psychotic medication soon after they first started to experience psychotic symptoms were more likely to respond to the medication, and respond quickly, than those who had experienced longer periods of untreated psychosis. When the patients were treated with anti-psychotic medication again after relapse, their response was slowed and subjects had less successful responses with each successive relapse. This suggests some kind of neuro-degenerative event that possibly was slowed or immobilized by taking medication. Some evidence to support this comes from magnetic resonance imaging studies. After two years of treatment, only the patients who had persistent symptoms or relapses experienced a further increase in lateral ventricle size, a condition that is commonly found in patients with schizophrenia. Therefore, early intervention programs aim to treat individuals who have had positive symptoms for six months or less with atypical anti-psychotics because they are possibly neuro-protective and have fewer side effects so subjects are more willing to be medication compliant. These particular methods seem to be working. One study demonstrates that in a one year follow up on subjects, 72% were in remission and had returned to routine daily living that included educational and vocational training as well as employment.

Early intervention researchers assert that untreated psychosis is also a product of stigma, which affects symptomatic individuals, their family members, and the healthcare system. People don't seek treatment because society has stigmatized it and doctors don't diagnosis it during initial onset because they feel that a diagnosis of schizophrenia would be like telling the patient to give up because the future entails unstoppable deterioration. Hence, for stigma to be reduced the public as well as health care professionals need to be educated about the effective treatments available for mental illness. More importantly, both groups must understand that early treatment results in better outcome.

Current Early Intervention Programs – What do they tell us?

Strategies to Reduce DUP

How do researchers and clinicians try to reduce DUP? The following section will investigate the various strategies and tactics employed in order to reduce DUP. Strategies typically include stigma-reducing devices such as education and awareness raising that targets the general public, and particularly professionals in the healthcare system, young adults, and those who work with youths. In addition, tactics almost exclusively rely on outreach services or accessible

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community-based treatment to reduce DUP. Educational materials work to lessen stigma by using a recovery vision approach of psychosis, as well as send a message targeted at youths that argues that getting treatment when symptoms can be identified is okay and shouldn't be shameful. Early intervention programs such as TIPS (Norway) and EPPIC (Australia) use these two tactics because research indicates that health promotion is the most effective when incorporating multi-level resources such as, individuals, families, neighborhoods, schools, workplaces, and the media. Media-alone interventions do not work and community intervention will not work either unless the strategy uses multiple access points. Therefore early intervention programs access the population through the media, health services, schools, and the work place and make sure that services are easily accessible.

1. Easily Accessible Services:

The first step is to establish easy access to clinical attention. Integrating the detection strategies into the ordinary structures of the health system does this, and therefore creating something new and different is not necessary. For example, in the TIPS program, members of the detection team, which consists of psychiatrists, psychologists, psychiatric nurses, and social workers, should be attached to pre-existing outpatient services. The detection team (DT) is highly mobile and works through an active outreach effort. The DT is available Monday through Friday, and at all other times the DT is available through an answering service. Public education efforts inform the general public about the DT's constant availability and guaranteed assessment within 24 hours. The DT conducts the assessment in a location that is convenient for the individual - at home, school, in a GP's office or the DT's office. If the case is difficult the person is referred to a more comprehensive evaluation through the Assessment Team (AT). If it is established through either the AT or DT that the individual is suffering from first-episode psychosis, patients meeting the inclusion criteria are asked to enter the specialized program. The EPPIC program uses a similar mobile outreach unit, the Early Psychosis Assessment Team (EPAT). Like the DT, EPAT functions to contact hard to reach populations (the homeless and substance abusers) and to educate young adults and the larger community about the importance of early intervention. EPAT also reduces stress by conducting assessments where the patient chooses in order for it to be the most convenient. EPAT educates about the crisis, therefore psychoeducation for the family and the patient begins from the initial point of entry into the program. This typically occurs in the home.

2. Stigma Reduction through Public Education and Awareness Raising:

The second strategy is community-based education efforts. General target populations include the public (patients, families, and friends), health care professionals, and schools (teachers, counselors and students). The goal is to inform about mental disorders in general and the early signs of serious psychiatric disorders in particular. Early intervention programs try to change the help-seeking behavior of the population, focusing on the positive outcomes of receiving help and possible early recovery. Furthermore, the campaigns stress the importance of treatment for psychiatric disorders as being just as important as treatment for somatic disorders.

Specific tactics that targeted the general public in the TIPS campaign included all households receiving a 12-page brochure that contained information about the project, how to access the DT, information about psychiatric disorders and psychosis, and a symptom checklist. Information was further dispersed through the local mass media (radio, TV, and newspapers) through free editorial coverage as well as paid advertisements. Other strategies included playing dramatic

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informational shorts before the screening of a film at the local movie house and a marketing company distributed items like postcards, bumper stickers, and T-shirts at movie theatres, restaurants, and other popular public gatherings eight times over a two-year period. Public meetings were held on a regular basis – including free lectures. Health professionals were especially trained to look for the early signs of psychosis and to learn how to access early help for patients exhibiting these signs of emerging psychosis. Here, educational programs were tailored especially for GPs, psychiatric nurses and other professionals that worked in the general health system. Training seminars were conducted and health professionals remain updated on the latest research with “newsletter updates”. The DT also traveled to High Schools and conducted educational outreach to youths, and professionals who work closely with youths, four times a year. Separate educational programs were designed for students, teachers, and counselors, with counselors receiving the most training. They supplied educational materials to the schools such as a movie, overheads and brochures.

The key to success with campaigns is the way in which public relation efforts were coordinated. For example, a full-page ad in the local paper was addressed just to secondary school aged kids and noted that they would be learning about the “school of life” in class. This particular ad pictured a prestigious school official, stressing the importance of early detection. That same day of the newspaper ad, all pupils received a brochure that detailed the warning signs of psychosis and offered the TIPS number for advice, more information, or help. The same ad and brochure still-photos ran before movies in the next few weeks. Overall, this tactic works to continuously repeat the same message in a number of different of venues but all within a matter of a few days and weeks – effectively bombarding the target population with information.

Like the TIPS program, the EPPIC program’s educational efforts also targeted primary health care professionals, the general public, and youths. The EPPIC program had one additional tactic that they utilized in order for their message about early intervention to reach teens and young adults. EPAT created a system of alliances and networks with other professionals within the community that worked with teens. For example, educational materials were distributed to both school and university counselors and members of EPAT kept weekly contact with these professionals so that referrals were facilitated. In essence, this system can be thought of as educating members of other social services to keep an eye out for early signs among their clients who are teens and young adults. This was in addition to EPAT’s tactic of addressing the public in general by appearing on national radio and TV shows and promoting national campaigns such as Schizophrenia Awareness Week and Mental Health Week. EPAT also has developed two different series of videos for their educational outreach – one for the general public and one for primary physicians.

Another EPPIC program, the *Personal Assistance and Crisis Evaluation (PACE)* program, treats youths ages 18 and under, using the strategy of equating mental health treatment to physical health treatment by actually placing the psychiatric service center in a general outpatient health center. PACE clinicians argue that this technique works with teens because they avoid the stigma of being treated in a psychiatric setting and aren’t labeled with a mental disorder. Clinicians argue that this system prevents attendance problems. Yet, just like adults, it is imperative that mobile outreach units be used to reach teens. In addition, *Young People, Prevention and Early Intervention (YPPI)* is an EPPIC program that uses the “youth health” model but the clinic particularly stresses the prevention of other mental illnesses that increase the risk of suicide such as depression and bipolar disorder. The center itself is non-clinical in appearance, with a pool table and other recreational devices. Here teens with any kind of mental

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health problem can seek treatment in a comfortable community environment that does not look like a clinic. Clinicians feel that the environment itself, as well as their own educational outreach efforts within the community have led to teens seeking early treatment.

3. Preliminary Effectiveness of Programs:

Although the complete assessment of the TIPS project's effectiveness will not be available until 2002, preliminary results demonstrate that DUP has greatly been reduced during the 3 years of the program in addition to significant reductions in stigmatizing public attitudes towards psychiatric disorders. First, public opinion polls measured the effectiveness of the education campaign on the public's awareness of psychosis and the level of stigma attached to psychiatric patients and seeking treatment. The polls reflected that before the campaign, roughly two-thirds of respondents stated they had some knowledge about schizophrenia but after 3 years of the campaign, the proportion of people with knowledge about psychosis and severe psychiatric disorders rose to nearly 90%. The primary sources of knowledge about schizophrenia were identified as coming from media sources such as newspapers, radio, and TV. This is why the TIPS project invested heavy resources in this area. Several questions in the poll addressed stigmatizing and negative attitudes, illustrating that education about early psychosis reduced stigmatizing attitudes significantly three years later. For example, there was a 20% reduction in the belief that there is no recovery with the diagnosis of schizophrenia and there was a 10% increase in the belief that schizophrenia is treatable. Researchers also hoped to change help-seeking patterns in order to assure treatment is made available as soon as possible. Results illustrate a significant increase in the number of referrals that the DT received. In 1997, after less than one year of the TIPS program, there were 361 total calls, but by 1999 the number of calls had risen to 1,226.

Overall, the aim to reduce DUP through community-based education and easy access to treatment lowered the mean DUP from 114.2 weeks in the 1996 to only 17 weeks in the experimental sample in early 2000. Therefore, on average, symptomatic individuals are getting treatment before DUP reaches a length of six months. In addition, the average age at hospitalization in the post-TIPS program sample was also younger, 26.3 years in comparison to 28.4 years in the 1996 sample. As a result, the shorter DUP sample subjects had healthier premorbid adjustments, and less severe psychopathology. The yearly cost of the TIPS project equated to about 390,000 U.S. dollars. The total costs were pretty evenly split between the cost of employees, the detection team, and the education initiative. The cost of the project for a population of 370,00 still only adds up to just about 1 dollar per year per person in the population. Unfortunately it is too soon to assess long-term cost effectiveness, but the implications are rather clear. Preliminary data does conclude that DUP can be reduced and the population obtained when DUP is shorter is symptomatically healthier. This means that the treatment group diagnostically consists of earlier forms of schizophrenia. We look forward to the spring of 2001, when TIPS researchers will report another series of preliminary results that focus specifically on the treatment outcome results of short DUP subjects versus long DUP subjects.

4. The Danish OPUS Project, A Non-Effective Strategy:

This study about methods to reduce DUP is important to mention because it demonstrates that mainly targeting educational efforts about the importance of early treatment to the primary health sector, particularly general practitioners, is not as effective as broader targets for education. For

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example, the OPUS project used expansive materials to educate general practitioners about how to identify psychotic symptoms and the phases of schizophrenia. To a much lesser extent, OPUS researchers present educational materials to social services, high schools, and other clubs or organizations that attract a lot of young adults. The OPUS project does not target families and the larger community with their education efforts. The mobile outreach efforts evident in EPPIC and TIPS were also not true of the OPUS project. After an elapse time of 19 months, educational efforts and increased co-operation with the primary health sector resulted in no reduction of DUP. Researchers argue this is because not educating the general public about early intervention reduced the number of self-referrals and parental/familial referrals which typically increased in other studies. A second reason why a reduction did not occur could possibly be because mobile detection and outreach was not used and therefore hard to reach populations remained un-reached.

Strategies for Effective Treatment

This section will briefly examine the treatment that subjects receive upon entering particular programs, illustrating how early intervention programs maximize the effectiveness of treatment of patients with short DUP. It is our interest to ask, “Did reaching the targeted population earlier help make patients more willing to comply with treatment, both psychosocial and medication?” “Does it look as though early intervention and treatment will be cost effective long-term?” Keep in mind that all of the programs addressed in the following pages are recent. Due to this, an assessment about each program’s strength is limited to short term outcomes.

1. The TIPS Project, Norway:

Because length of DUP is being studied as a causal mechanism, treatment remains the same among all three different study groups – the one experimental group in Rogaland, and the two control groups. This ensures that length of DUP is the causal mechanism for better outcome and not different methods of treatment. Program researchers are currently evaluating the outcome levels of subjects in all three sites and this data will be available in the spring of 2001. For now, this report can highlight the treatment repertoire of the TIPS program, which reflects the **general consensus among early intervention advocates** - that is, *treatment should contain of a mixture of medication, family work/education, and psychosocial therapy/education - all placing an emphasis on continuity.*

The first area of standard treatment is psychosocial rehabilitation that is individually tailored to meet the patient’s needs and to utilize services already available within the community system of care. This portion of treatment is designed and overseen by the patient’s therapist or case manager. The focus is to encourage reintegration with society, give hope for recovery, learn internal coping mechanisms, and gain personal development. Therapists are required to actively pursue a patient who is not showing up for appointments or taking medications. Hence, therapists may need to make home visits. Therapists chart this behavior because it is hypothesized that non-compliance is correlated with longer DUP and researchers want to obtain this information correctly.

Like other early intervention researchers, the TIPS project uses atypical anti-psychotics in the treatment repertoire. During the acute phase the first drug of choice is olanzapin. Persistent positive or negative psychotic symptoms after eight weeks on maximum dosage will lead to a change of medication, usually to risperidone. If side effects or symptoms persist, medication can

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be changed but it should remain in the atypical anti-psychotic family such as perfenazin or clozapine. The duration of maintenance treatment is dependent on the patient's disorder.

The third area stressed is family work. Studies have shown that treatment programs for psychotic patients that include family work reduce rates of relapse and re-hospitalization. The families are included as important resource persons in the treatment of the patient. They receive help and education on how to deal with the daily life of the patient in a better way. The psychoeducative family work takes place in a group with four other families. The goal is to achieve better coping with the illness and the strain, which follows. The multi-family group usually will last for two years. This model contributes to families and patients making use of both the health services and each other in order to cope with problems in the most effective way. The model also contributes to reducing myths, enhancing the participants' social network and allowing families to benefit from each other's experiences. This leads to better coping for both patient and family.

Family meetings concentrate on solving problems that arise in the daily company between patient and relatives. Through extending the network around each family through multi-family groups, a number of additional effects are obtained compared to offering families help individually. Guilt and shame connected to the illness are reduced. In the groups the participants are also given the opportunity to benefit from others' experiences, and the group offers a community. After one and two years in the group, the majority of both patients and relatives expressed satisfaction with the arrangement. In this project, family is defined as parents, stable and close stepparents, spouse, stable and close live-in-partner, children over 18 years and siblings over 18 years. If siblings are under 18 years of age, they have to be considered individually, and may be invited to some meetings

2. EPPIC, Australia:

This program contains the same treatment elements as the TIPS program and family psychoeducational work is considered critical and is quite elaborate. Family work is particularly important because on average, 63% of EPPIC subjects live with their parents. The program leaders at EPPIC stress that family support is essential because it can reduce secondary morbidity such as PTSD, substance abuse and depression. Family work is both multi-family as well as families alone meeting with a clinician. The education process begins at the first point of contact. Most families are eager for a diagnosis and explanation – clinicians are careful to explain the risk of a premature diagnosis and the need for a thorough organic screening. Relatives are informed that “first-episode psychosis” is not a condition that they have caused. Family members may share many of the negative stereotypes about schizophrenia-like disorders, just like the general public. At this early stage, diagnosis, treatment and short-term recovery are the focus of the family's concerns. They may also be working to assist their loved one in a way so that they can stay home during their acute phase. Families also learn how psychoses can confuse and make a patient delusional, which in turn can lead to conflict with the family. This helps to minimize the amount of misinterpretation that can exist between family members and the patient. Clinicians at EPPIC use the stress-vulnerability model to explain “why” psychosis onset has occurred, emphasizing a broad psychosocial approach. The family is usually naïve to the mental health system and their views are not yet tainted. If there is a history of mental illness in the family, their experience may be averse but these negative attitudes can be countered by education and an alliance between the client, family, and clinician. The EPPIC program argues that family intervention should take place in the context of four stages.

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- **Stage One - *Perceptions and Explanations***: The family may come into the situation feeling guilty, confused and full of anxiety. The subtle nature of early symptoms may also make the situation confusing and parents or caregivers are unsure when to get the person into treatment. Therefore, families with high-risk adolescents need to be ready to access information about the early warning signs with accessible assessment services for early detection.
- **Stage Two: *After detection - grief and stress***: The family is greeted with a general diagnosis and evidence suggests that families are at risk themselves for stress disorders – or depressive symptoms. Families must be made aware that this is a high stress period which may include hospitalization and decisions about treatment that are difficult. In short this results in trauma for the family. Families themselves should be obtaining psychological or clinical services. If parents don't get to express their concerns to a case manager or treating physician, psychoeducational sessions are less effective and the engagement of the family is less likely to work. Evidence shows that for the family at this time the hardest part is the ability to process all the information they need to know about the illness and deal with the grief of a suffering loved one at the same time. The EPPIC program therefore wants the place that the information comes from to be a supportive environment. Clinicians at EPPIC also recognize that family members don't all have the same needs or deal with the situation in the same way.
- **Stage 3: *Toward recovery: coping, competence, and adaptive functioning***: Here the family is a partner in making recovery work. The illness may be more severe or more treatment resistant than average and in each case the family has different needs that are individually addressed. Individual situations leave them at different points of more or less hopelessness – making a higher risk of depression.
- **Stage 4: *First relapse and prolonged recovery***: Studies have shown that recovery requires the support of loved ones. One study even demonstrated that relapse rates were 50% higher in patients with families with high levels of over-involvement or criticism in association with their loved one's treatment. Basically the family's well-being and their ability to deal with the stress and change of having a family member with a mental illness plays a huge role in the patient's ability to successfully not relapse – hence on-going and intensive support is necessary. The EPPIC program further stresses that this is particularly important in first-episode patients because they are young adults whose lives have been disrupted and they need assistance in both getting back on track and staying there.

EPPIC puts these strategies into a working plan, assuming that families can effectively work together with clients and clinicians – together as a team to have the best treatment available. EPPIC case managers are also flexible in order to meet the needs of the family. Family work is stretched across the scope of EPPIC with special consultant psychiatrists and designated family workers. The system focuses on the staff being involved with the family and this is in contrast to the exclusion of the family during inpatient situations. Everything is packaged simply and made user-friendly for family members who might feel threatened and uncertain. Families can be interviewed together and separately in a forum where they can ask questions and get answers. Clinicians wish to assess how much the family knows about psychosis, the impact of psychosis

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on family members, concurrent stressors, family patterns of communication and problem solving, and family coping sources.

A final unique aspect of the EPPIC program's treatment is using cognitively oriented psychotherapy for psychosis or COPE. The aim is to help each person adapt to the onset of the psychotic illness and its effects on his or her self-concept, identity development, and self-esteem. In essence, COPE's function is to work against secondary morbidity. Co-morbid factors that are prevalent in first-episode cases that are targeted for treatment through COPE are typically depression and social phobia. First episode patients must deal with stigmatization, a reduction of life opportunities and a demoralizing loss of self-esteem. All of these pressures and circumstances increase the possibility of developing another mental health issue – such as substance abuse. A recent study that examined COPE's capacity to intervene in the development of secondary morbidity found that COPE had been very successful. COPE was able to contain secondary morbidity among those who participated unlike non-participants whose measures of secondary morbidity increased within the course of 12 months.

3. Prevention and Early Intervention Program for Psychosis (PEPP), London, Ontario:

Treatment at PEPP is based on community care and uses assertive case management. The case management system relies on strong alliances that have been built with schools and colleges; therefore outreach efforts go into the target population and treatment can continue as the individual resumes daily activities. Most are treated through outpatient services and only during acute episodes is a psychiatric setting used. Due to this cost are decreased. Elements of treatment include: atypical antipsychotic medication which usually consists of 2-3mg of risperidone, multi-family psychosocial education similar to EPPIC's model, medication management skills, a youth group for identity building, skill-building to manage anxiety and depression, and cognitive skill building. Elements of psychoeducation that are stressed include peer support and family involvement. Overall the program promotes a message of recovery from illness and recovery of functional status at the earliest point possible. The treatment program is two years long but there is and will be follow-up and on-going case management for participants. Together these treatment strategies have created preliminary results that show that patients not only return to their occupations or schooling but quality of life measures significantly improve. For example, if DUP is less than 6 months, remission rates are high, up to 84%. If DUP is longer than six months 60% also remiss, illustrating that the treatment element significantly adds to positive outcome.

The work of case managers within the PEPP program is distinctive because the main goal is to return PEPP subjects to school, work, or routine daily living as soon as possible. The case manager makes meaningful ties to employers, working to get a symptomatic client reinstated if he or she was demised due to untreated symptoms. A caseworker will work with school officials to receive a sick leave of absence for a client instead of the individual being dropped from courses. Case managers also travel to workplaces and school environments in order to educate the people that come in contact with his or her clients. The case manager does this using plain, simple, non-medical language. For example, a case manger would not use the term "schizophrenia" or "psychosis" but instead explain that the condition causes difficulties with concentration and memory loss. If returning to school or work is not yet possible, than the case manger, with the assistance of school officials, uses cognitive tests to determine what kind of independent study can take place at home. Keeping with the philosophy that this episode is temporary, case managers do not place PEPP clients in housing that accommodates or is suitable for individuals with chronic or severe mental illness. In most cases, subjects are still residing

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with their parents, or chose to reside with family during the treatment and recovery process. The continual message from the PEPP program echoes that symptoms are temporary, treatable, and recovery is inevitable if the program is followed.

Unfortunately the preliminary results are only for two years and the project's directing clinician, Dr. Asok Malla states it is far too early to tell if remission will be sustained in follow-up studies, therefore effect on long-term outcome is unknown. Yet the outlook is positive because if young patients stay in outpatient treatment for roughly 2 years they can be closely monitored for possible relapse and treated so it does not occur.

Conclusions and Recommendations

What Research Doesn't Answer and Why Early Intervention?

Unfortunately there are a number of questions that current research is unable to answer. The main reason for this is that it is too soon for current data to provide any evidence of long-term results. Yet as evident in this report, there are numerous reasons why the mental health community should be committed to developing models of early detection and intervention.

- Current evidence illustrates that reduced DUP, particularly six months or less, is associated with better treatment outcomes in schizophrenia and psychosis-related disorders.
- Long DUP is associated with reduced treatment compliance, more negative symptoms, low quality of life scores, substance abuse, homelessness, and increased likelihood of depression and social anxiety disorders.
- Early intervention programs aim to reduce DUP through education and awareness campaigns that actively use the media and target youths, health professionals, and the general public. The outcome is a reduction in the stigma of mental illness in general.
- Messages about early intervention stress that mental illness can be treated effectively and needs to be treated as soon as symptoms manifest. Similar to somatic illness, early treatment enhances recovery.
- Proper treatment that consists of atypical anti-psychotics, individual and family psycho-education, individual psychosocial therapy, and peer support further enhances outcomes in first-episode patients.
- Reduced DUP in conjunction with proper initial intensive community-based treatment is cost-effective not only because it reduces hospitalizations and uses other integrated social services but also because it possibly reduces the long-term disability of severe mental illness.

Considering the accomplishments of early intervention programs in conjunction with the achievements of AB34 programs, the reasonable next step for AB34 programs is to use their successful tactics of intensive outreach and integrated services in the treatment of symptomatic young adults before untreated symptoms begin to take a life-changing toll. We believe that the mental health community should seize this opportunity to actively pursue early intervention programs.

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As a result we recommend:

The creation of a new program that is based on the AB34 strategies of mobile outreach and integrated services but also include an educational component that will actively raise awareness in the pilot community among target populations such as the general public, youths and individuals who work with youths, and health professionals.

Note:

**This information is just a brief excerpt from a growing document that extensively examines early intervention programs. The now 70-page document is constantly being added to as new research is found and analyzed. A large amount of data concerning treatment outcome comparisons and cost-effectiveness analyses is expected to be released from TIPS, EPPIC, and PEPP programs in the spring of 2001. This document will be released once this data can be thoroughly included. If you have any questions or are interested in more information please contact Stephanie Welch, research associate, at the CCCMHA office in Sacramento. A reference list is also available upon request.*