

**TRANSITION OF ADOLESCENT STUDENTS WITH BIPOLAR DISORDER FROM
HOSPITAL TO RECEIVING SCHOOLS:**

THE EDUCATIONAL AFTERCARE PLANNING PROCESS

BY

TRACEY TRUDEAU

A Thesis

**Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the degree of**

MASTER OF EDUCATION

**Department of Educational Administration, Foundations and Psychology
University of Manitoba
Winnipeg, Manitoba**

**© Copyright by Tracey Lynn Trudeau
March 2000**



National Library
of Canada

Acquisitions and
Bibliographic Services

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque nationale
du Canada

Acquisitions et
services bibliographiques

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file *Votre référence*

Our file *Notre référence*

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-51813-2

Canada

**THE UNIVERSITY OF MANITOBA
FACULTY OF GRADUATE STUDIES

COPYRIGHT PERMISSION PAGE**

**Transition of Adolescent Students with Bipolar Disorder from Hospital to
Receiving Schools: The Educational Aftercare Planning Process**

BY

Tracey Trudeau

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University
of Manitoba in partial fulfillment of the requirements of the degree
of
Master of Education**

TRACEY LYNN TRUDEAU © 2000

Permission has been granted to the Library of The University of Manitoba to lend or sell copies of this thesis/practicum, to the National Library of Canada to microfilm this thesis/practicum and to lend or sell copies of the film, and to Dissertations Abstracts International to publish an abstract of this thesis/practicum.

The author reserves other publication rights, and neither this thesis/practicum nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

Acknowledgments

This study would not have materialized without the support of the Department of Educational Administration, Foundations, and Psychology, and specifically Dr. Jon Young, who encouraged me in my pursuit of the role of mentally ill students in education. Dr. Rosa Bruno-Jofre was also very generous with her support.

The members of my thesis committee provided the gift of their time and expertise. Dr. James Newton, my program advisor, assisted me with the conceptualization of the study and access to the adolescent unit. His unwavering positive attitude and willingness to listen to ideas I had about methodology and analysis spurred my motivation and strengthened my resolve during long hours with boxes of charts. Dr. Charlotte Evans was my diligent partner in critically reviewing voluminous chunks of data and evolving drafts of the manuscript. Her careful attention to detail has made me a more conscientious researcher and she has become an excellent role model for my future educational pursuits. Dr. Rayleen DeLuca from the Department of Psychology has inspired me as one of the best teachers I have ever had. It was in her graduate course on childhood development and its deviations that I began the background work that became the foundation for this study. A special acknowledgement to Dr. Riva Bartell, director of the School Psychology Program at the University of Manitoba, is necessary. Dr. Bartell has had the most influence in shaping my perspective of working with children. Mr. William Ashdown and Mr. Douglas Moore of the Mood Disorders Association of Manitoba were very supportive employers and friends during my busy research pursuits. The generosity of the staff at the adolescent unit and at the receiving schools with their time and wisdom is also tremendously appreciated.

My family has been my greatest cheerleaders. My parents, Edward and Elaine Mills, instilled in me a love of learning and respect for education. My father, who has possessed unwavering confidence in me, has been my greatest teacher in life's lessons. My husband's parents, Rene and Germaine Trudeau, were always encouraging and positive. My husband, Charles Trudeau, deserves a large portion of credit for this study. He expected nothing less than excellence from me, learned with me along this journey, and reminded me of the reasons why this work was so important.

Table of Contents

Lists of Tables and Figures.....	v
Abstract.....	vi
Introduction to the Research Question.....	1
Background	
A review of bipolar disorder and its prognosis in youth.....	7
Implications of bipolar disorder in educational growth.....	14
Inpatient education program.....	21
The transition process – educational aftercare planning.....	22
Method	
Sample.....	31
Data collection and analysis.....	32
Chart review.....	33
Inpatient staff interview.....	34
Receiving school staff interview.....	35
Analysis.....	36
Results	
Medical and Psychiatric Profile	
Childhood development and medical phenomena.....	38
Psychiatric profile.....	39
Hospitalization and treatment.....	41

Educational Profile	
Inpatient school program	45
Cognitive and academic assessments	46
Transition planning process	
Chart data	52
Inpatient staff interviews	55
Receiving school staff interviews	60
Discussion	
Medical, developmental and treatment issues	68
Defining the needs of students with psychiatric disabilities within education	72
Transition roles, communication and planning issues	76
Summary	80
References	84
Appendix	
A: Chart recording form	91
B: Inpatient staff interview questions	96
C: Receiving school staff interview questions	98
D: Letter of Information and Consent, Inpatient Staff	99
E: Letter of Information and Consent, Receiving School Staff	100

List of Tables

Table 1: Descriptive data and characteristics of sample.....	32
Table 2: Onset age of prodromal emotional disturbance and hospitalization.....	44
Table 3: Substance use and hospitalization patterns.....	44
Table 4: Medication adherence and hospitalization patterns.....	44
Table 5: Proportion and distribution of subjects who received assessments.....	47
Table 6: Verbal, Performance, and Full Scale Scores distribution in comparison to the normal curve.....	49
Table 7: Inpatient teacher qualitative performance statements.....	52
Table 8: Breakdown of bridging activities by cases.....	54

List of Figures

Figure 1: Age of onset of prodromal emotional disturbance.....	41
Figure 2: Duration of attendance at the inpatient school.....	46
Figure 3: Group means of cognitive tests.....	48
Figure 4: Cognitive abilities and academic aptitudes listed in subject case files.....	51
Figure 5: Receiving school liaison by number of cases.....	55

ABSTRACT

Youth who develop Bipolar Disorder have widely varied patterns of school functioning that are reflective of individual cognitive and affective status during each recovery stage. Since the likelihood of a student with Bipolar Disorder being hospitalized at some point is very high, and lengths of hospitalization can range from weeks to years, the educational needs of these ill youth must be considered while in hospital. When these students are discharged to community-based services, educational aftercare planning and the transition process back to receiving schools are important factors in determining future academic and occupational success.

Psychiatric and educational profiles of these students (n=33) admitted to an inpatient psychiatric facility were examined via a case review. Perspectives on the transition planning process were examined through interviews with key inpatient staff and staff at receiving schools.

Overall, this sample of Bipolar youth was characterized by difficulties with cognitive abilities post-illness onset, concerns about social-emotional and stigma issues in returning to community school, and erratic patterns of hospitalization and school attendance. Despite the ongoing struggles with mental status, most subjects were able to return to community schooling due to collaborative planning strategies of inpatient and receiving school staff. The most significant barriers to successful transition was lack of student/parental consent to share illness and assessment information with the school, and treatment non-adherence. The findings are significant in that they provide a comprehensive picture of the emotional and cognitive challenges this relatively rare group of students face in attending community school.

INTRODUCTION TO THE RESEARCH QUESTION

The purpose of this study is to examine the transition planning process for students from an inpatient psychiatric facility into the regular school setting. There is convincing evidence to suggest that academic outcome is one valid and reliable way of measuring the overall cognitive, emotional, and occupational impact of bipolar disorder (BPD) and other serious psychiatric illnesses such as schizophrenia (Kutcher, Robertson & Bird, 1998; Quackenbush, Kutcher, Boulos & Chaban, 1996; Sigurdsson, Fombonne, Sayal & Checkley, 1999). Until recently, thorough knowledge about serious psychiatric illnesses such as BPD or schizophrenia was not of critical importance to special educators and school clinicians because of the absence of students with these disorders who actually remained in community schooling for their entire academic careers. (Goodwin & Jamison, 1990). However, students who develop a serious psychiatric illness like BPD are a growing concern for educators and school-based clinicians due to several recent trends.

First, de-institutionalization has put the care of persons with serious psychiatric illnesses into the hands of local mental health professionals and community treatment centres (Benson, 1994; Okin, 1995; Salokangas & Saarinen, 1998). The de-institutionalization trend has also meant that students with severe psychiatric illnesses are to be educated in community schools rather than exclusively in hospital or residential schools. Second, newly emerging medications for severe psychiatric illnesses in the last decade have resulted in a) longer, more stable periods of illness remission and/or symptom management; b) significantly reduced medication side effects; c) symptom

control at an earlier age resulting in reduced cumulative impairment and: d) increased adherence to the treatment regime (Goodwin & Jamison, 1990). Third, accurate identification and differential diagnosis, especially between schizophrenia and BPD, allows for more specific and appropriate treatment planning based on knowledge of the particular disorder (Carlson, Fennig & Bromet, 1994). Fourth, when comparing the life expectancy of persons with serious psychiatric illnesses today with persons at the turn of the 20th century, the mortality rate has dropped dramatically. Death due to accident while psychotic, from manic exhaustion, or from disease in unsanitary asylums was common (Goodwin & Jamison, 1990). Finally, the continued work and growth of the inclusionary education movement has brought the concerns of all students into the mainstream classroom. Many of these changes have come about due to advances in eradicating the misperceptions of, and discrimination against, people who differ developmentally (Sattler, 1992). Today, persons with psychiatric disabilities are the second generation beneficiaries of these efforts.

The small body of literature addressing the fields of inpatient schooling, the unique characteristics of educating students with psychiatric disabilities, and transition planning began with the work of Forness and Langdon (1974), and colleagues at the UCLA Neuropsychiatric Institute. These initiatives addressed the challenges in dealing with pediatric inpatients in general, but did not refer to specific challenges with particular disorders. As research specific to disorders such as schizophrenia, autism, obsessive compulsive disorder, and BPD spawned detailed recommendations based upon the needs developing from related impairments, so to did the corresponding growth in educational planning for students with these rare and life long developmental and psychiatric

disabilities (Sattler, 1998). Youth who develop BPD have widely varied patterns of school functioning that are reflective of individual cognitive and affective status during each recovery stage. These patterns of school functioning do have some common traits reflecting particular educational needs and thus recommendations (Quackenbush et al., 1996).

Since the likelihood of a student with BPD being hospitalized at some point is very high (Goodwin and Jamison, 1990), and lengths of hospitalization can be considerable and range from weeks to months, the educational needs of the ill youth must be considered while in hospital and upon returning to the regular school setting. If the ill student attends the inpatient school, he or she is in a protective and highly structured environment which is facilitative of 'milieu therapy' – the belief that a well-designed environment can be therapeutic in and of itself (Goldfarb, 1992). When the student is treated and has recovered enough to leave residential treatment for either day hospital or community-based services, educational aftercare planning and the transition process back to the regular school may be the most important factor in determining future academic and occupational success for the student (Quackenbush et al., 1996). There are nine crucial factors which have a great impact upon the success or failure of this transition planning process and long term educational programming for the ill student and provide the organizing focus of this study. According to Rothaus and Wolkon (1977), the first factor is that the receiving school must be perceived by the inpatient team as a valuable aftercare resource that can be facilitative of emotional and vocational rehabilitation. Second, these authors see staff uncertainty with role responsibility for educational aftercare planning as a serious hindrance to communication and follow-up of the ongoing

treatment and educational plan. This role uncertainty can occur within the inpatient staff (i.e. between medical and educational staff), and between the psychiatric hospital and the receiving school. Furthermore, Rothaus and Wolkon state that there are implications of this role confusion for aftercare planning – the most obvious being lack of accountability for maintenance of treatment and educational programs, and the stable adjustment of the returning student. Role uncertainty is more likely to be a concern where there is a lack of formal collaborative policy or established transition programs.

Forness and Barnes (1981) describe a fourth factor which may hinder the successful transition planning of ill students. It is a lack of understanding and basic knowledge of specific psychiatric illnesses and their residual affects upon educability within the receiving school staff. For example, memory and abstract reasoning changes during recovery from BPD affect the ability to perform certain tasks (Ferrier, Stanton, Kelly & Scott, 1999). A fifth factor is related to absence of attention within a transition plan given to consideration of the “social aspect of school transition” (Forness & Barnes, 1981, p. 179) such as alienation from peers due to long absences or due to effects of stigma surrounding the diagnosis. A sixth factor these authors identify as important in the transition process is ongoing communication between families, inpatient staff, and receiving school staff after the student is discharged. The initial reintegration period is the time when the receiving school staff typically requires more intensive consultation and professional support. Although discontinuation of communication is not the norm, the authors point out that ongoing support of the student and receiving school staff may be necessary for a considerable period after the student is discharged from the hospital. The availability of staff resources will play a part in this task.

A seventh factor that has a great impact upon the success or failure of this transition planning process and long term educational programming for an ill student is the recent trend to shorter lengths of inpatient admission. According to Goldfarb (1992), this reduced stay in hospital means that more time is spent conducting assessments whereas the treatment and stabilization period is reduced. Two consequences could arise. The student may leave the hospital and return to school when he or she is experiencing residual effects of the illness, or, the inpatient school staff will have insufficient time to develop sound educational recommendations for the student returning to regular school. The eighth factor is the bi-directional sharing of academic and historical information of the student at the point of admission, as well as during treatment, discharge planning, and the transition processes. Baseline academic and behavioral data should be provided by the home school to inpatient staff. Diagnostic and achievement test data should also be incorporated into the transition plan and educational recommendations from the inpatient staff. Goldfarb also stresses the crucial importance of informing the receiving school staff of the student's prognosis and estimated discharge date. Although it is difficult to predict the outcome of particular cases, early onset of psychiatric illnesses like BPD is correlated with particular academic and emotional challenges (Quackenbush et al., 1996). There is a growing body of longitudinal data that addresses the questions surrounding outcome of youth with BPD in detail (Hellgren & Gillberg, 1993; Coryell, Scheftner, Keller, Endicott, Maser & Klerman 1993; Kjelsberg & Dahl, 1998). Lastly, who has the 'final say' or decision-making authority regarding educational placement and individual education plan (IEP) recommendations?

Examination of the transition planning process for students from an inpatient

psychiatric facility into the regular school setting will facilitate three major study components. First, the academic, social, and health needs of this unique group of students will be identified via development of educational and psychiatric profiles. Second, experiences of inpatient and receiving school staff who have been part of the transition process will be investigated and analyzed. Third, implications arising from data analysis will be discussed, including how the findings from this study fit with relevant current literature, and development of best practices and recommendations for working with students with BPD.

To accurately address the unique challenges and needs of both working with and planning for the bipolar student, a review of the disorder and its residual effects upon emotional, intellectual, and behavioral development follows.

BACKGROUND

A Review of Bipolar Disorder and Its Prognosis in Youth

Bipolar disorder (BPD) is a mood disorder characterized by alternating episodes of major depressive disorder and manic (BP-I) or hypomanic (BP-II) episodes. BPD is a serious, lifelong illness with a variable course marked by unpredictability, particularly when onset occurs in childhood and adolescence (Biederman, Faraone, Chu & Wozniak, 1999). What is known is that “less than 1/3 of adults with BPD will receive treatment, and relapse rates are high, as are levels of psychosocial impairment and suicidal behaviors” (Lapalme, Hodgins & LaRoche, 1997, p. 623). Discrete episodes of depression and mania is the classic clinical picture of BPD. The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; APA, 1994), allows diagnosis of an episode of major depressive disorder in children when there is the presence of sad/irritable mood or anhedonia, and four or more of the following symptoms, (one of which may be the other primary symptom above): unintentional change in appetite or body weight (+/-) of 5% or more, or failure to gain weight; insomnia or hypersomnia; psychomotor disturbance (agitation/retardation); fatigue, loss of energy; feelings of worthlessness, or, excessive/inappropriate guilt; cognitive impairments such as poor concentration or indecisiveness; recurrent thoughts of death, or suicidal ideation or attempts. The episode cannot be part of bereavement, substance use, or due to other medical problems.

The criteria for a manic episode (regardless of age) according to DSM-IV requires one week of abnormal and marked change in mood which is elevated, expansive or

irritable (less than one week if hospitalization occurs). In addition to this mood change, three more symptoms must be present (four if the mood is irritable): inflated self-esteem or grandiosity; decreased need for sleep; more talkative and pressured speech; racing thoughts or flight of ideas; distractibility; increase in goal-directed activity or psychomotor agitation; and excessive involvement in pleasurable but risky activities with a potential for painful consequences. The distinction in hypomania (BP-II) is in the duration of four days, in the less severe disturbance of mood, and that there not be psychotic features or other symptoms requiring hospitalization.

There are criteria as well for variation in the pattern of presentation. Rapid cycling refers to four or more episodes of mania and depression per year. Mixed episodes refer to the simultaneous presentation of symptoms which would concurrently qualify for diagnoses of mania and depression. Mixed episodes are in contrast to classically distinct presentation of mania and depression as separate phases, and in chronic course. There are some concerns which have been raised with the current definition of BPD (Akiskal, 1995). First, there are many persons who are overlooked with patterns of 'ultra-rapid cycling' (Geller et al., 1998). They typically roller-coaster between dysphoric mania and depression over a period of days and are, not surprisingly, frequently misdiagnosed with borderline personality disorder. Other people have a seasonal pattern where they are depressed during the fall and winter and hypomanic during the spring and summer (Papatheodoros & Kutcher, 1996). These people are often misdiagnosed as having Seasonal Affective Disorder (SAD) because their elevated mood is attributed to recovery and the switch to hypomania is missed. Third, there are no formal diagnostic criteria put

forth by APA that satisfactorily addresses differences in presentation within adult onset cases, and between adolescent and childhood onset cases (AACAP, 1997).

BPD affects at least 1% of the adult population in North America, with older adolescents approaching this rate (Goodwin & Jamison, 1990). A recent cross-national study investigating the epidemiology of mood disorders found a range in the prevalence of BPD from 0.3% in Taiwan to 1.5% in New Zealand (Weissman et al., 1996). Point prevalence of BPD in children is approximately 0.2% to 0.4% in community samples, with an elevated rate in hospitalized samples (Zarate & Tohen, 1996). Recent papers and conferences focusing on BPD strongly challenge the current consensus on incidence and prevalence. It may be that cases of unipolar (or 'clinical') depression are overestimated while BPD is seriously underestimated, under-diagnosed, and hence under-treated (Angst, 1999). According to Goodwin and Jamison, the greatest frequency of initial manic episodes appear from ages 15 through 19 years, and the rates in the early twenties follow closely. Rates of mania dramatically increase after 9 years of age, with an 8-fold increase in the 10 to 14 years cohort. Although not confirmed, current data suggests that this marked increase may be the manifestation of two phenomena: neurological maturation reflected in cognitive sophistication; and endocrine changes associated with onset of puberty (Goodwin & Jamison, 1990). Despite the fact that mania in childhood is rare, onset as early as preschool has been recorded in the literature (Carlson, 1995). People diagnosed with BPD and who are under the care of a physician have suicide rates at 11% (Carlson, 1996), however the rates of death due to self-neglect and accident (especially during manic phases) are unknown. Suicide rates for people with BPD who

are not under treatment and abusing alcohol are astonishingly high – one in four will die by suicide (Baldessarini, 1999). This is a higher mortality rate than some forms of cancer.

Early onset BPD is a medical challenge because current understanding of diagnosis and treatment have been based until recently upon adult subjects. Ongoing research is now revealing the nature of a disorder which, until approximately twenty ago, was considered an incredibly rare event in childhood (Goodwin & Jamison, 1990). Early onset BPD is now a legitimate area of study for many reasons, among which is the possibility of “profound deleterious effects on psychological development” of afflicted children (Strober, 1997). The initial skepticism about legitimate presentation of BPD in children prompted Anthony and Scott (1960) to develop criteria for mania and depression in pediatric populations. They observed that because of developmental differences, separate criteria were necessary to help delineate children with BPD from early onset schizophrenia or from severe externalizing disorders. There are at least two controversial guidelines they included that bring to question the accuracy of their ‘developmental interpretation’ in light of modern clinical observations: First, one requirement is the presence of discrete episodes (or poles) of illness separated by time. This criteria precludes diagnosis in many BP children who have a mixed, chronic, or rapid-cycling course - phenomena more often present in children than adults (American Academy of Child and Adolescent Psychiatry, [AACAP], 1997). Second, Anthony and Scott require observable mood switch from elation to depression in a classic fashion. Hindering the validity of this criterion is the current consensus that prepubertal children present with prominently irritable mood during mania - often the prominent mood in depression as well (Varsamis, 1995; Carlson, 1995). Further, Biederman and Faraone

state that the Anthony-Scott criteria “unintentionally may have lead to an underestimation of the prevalence of BPD in children” (1995, p. 647).

Still today, “many children and adolescents do not come to the attention of teachers or parents” as ill but rather as just ‘bad’ or ‘out of control’ youngsters. (Reynolds & Johnston, 1994, p. 4). It is often difficult to separate a phenomena called ‘affective storms’ (Davis, 1979) or other manic-induced behavior from conduct disorder or severe attention deficit hyperactivity disorder (Biederman & Faraone, 1995). These affective storms are characterized by violent and aggressive outbursts, use of obscenities, tantrum-like destructiveness, and disregard for personal safety or logic of the behavior (Varsamis, 1995). These affective storms are most common in children with onset at 9 years of age or younger. This group also has more irritability, emotional lability, and episodic short attention span. In contrast, children with onset 10 years of age or older may begin to show euphoria and elation, as well as paranoia and grandiose delusions (Weller et al, 1995, p. 711). The frequent co-occurrence of conduct disorder and attention deficit-hyperactivity disorder, with onsets both before and after BPD emergence, confounds the problem of differential diagnosis (Biederman et al., 1996). Childhood BPD is distinguished from adult onset course by the very high rate of comorbidity.

Comorbidity and level of functioning in the period subsequent to the prodromal phase of illness is also a factor influenced by developmental stage. Kutcher, Robertson and Bird (1998) found in their report on adolescent onset BPD that remaining asymptomatic during early childhood prior to the onset of illness in the teen years is associated with better academic and peer-related functional measures during the premorbid years. In this sample, the mean age of onset for the initial manic episode was

16.7 years. The majority of the sample had patterns of mixed mania or rapid cycling presentation. More than half the sample also experienced hallucinations and/or delusions while ill, whereas Biederman et al. (1999) found in their sample a rate of psychosis of 23%. Since mood incongruent psychotic features were readopted by DSM the ongoing concern with misdiagnosing BPD as early onset schizophrenia due to the presence of florid psychotic features has improved substantially

Medication is the cornerstone of treatment since response usually precludes participation in other life roles and in adjunctive treatment modalities such as psychological therapies (AACAP, 1997). During acute episodes, serious psychiatric illnesses create such profound alterations in emotion and in activities of daily living and distort the most basic cognitive processes of orientation to time, place, and reality that chronic unresponsive BPD and schizophrenia predict devastating lifelong deterioration (Jacobsen & Rapoport, 1998). With advances in neurology and psychiatry however, the likelihood of remaining treatment unresponsive is diminishing (Fuchs, 1994). Thus, there are students who have significant periods of wellness or remission interspersed with periodic acute relapses. Symptoms of BPD, like schizophrenia, are controlled through a comprehensive health plan and a life-management perspective. Schizophrenia is usually chronic in nature, whereas BPD tends to be more episodic or cyclical (Geller & Luby, 1997). BPD carries with it unique patterns of thought entirely dependent upon whether a student is in a depressed, euthymic, or manic state (Hoff, et al. 1988). Both extreme poles of this illness can produce moderate to severe memory impairment, deficits in abstract thinking, logical errors, visual-spatial input changes, and psychomotor changes. Acute episodes of mania and depression are severely disabling, usually requiring the supported

care of an inpatient environment necessary for constant medical monitoring of symptoms and safety from self-injury or self-neglect. Six or more hospitalizations over a lifetime are not unusual (Barham & Hayward, 1998).

Where people with BPD have onset in early adolescence or childhood, longitudinal studies predict a variable to poor lifetime prognosis. Gillberg, Hellgren, and Gillberg (1993) found in their observation of psychotic adolescents who were followed to age 30 an overall deficit in psychosocial adjustment. Although generally youths with BPD have a slightly better prognosis than youths with schizophrenia, this data found equivalent impairment on all measures. When compared to the matched control group, the psychotic youths showed at age 30 a greater reliance upon extended social security (20% vs. 5%). None of the matched control group by age thirty was receiving a full lifetime pension, however 25% of the psychotic subjects were receiving the same support. The study's country of origin (Sweden) has in place strict qualifying criteria for full pension, thus the fact that $\frac{1}{4}$ of the subject group qualified for such a benefit is indicative of the life-long impact of serious psychiatric illness. A Norwegian longitudinal study followed inpatient adolescents for a period of between 15 and 33 years (Kjelsberg & Dahl, 1998). One hundred seventy four subjects with schizophrenia and mood disorders were categorized at follow-up for rates of delinquency, disability, and mortality. Overall, those subjects who had psychotic symptoms, such as hallucinations, delusions, and catatonia, had poorer outcome irrespective of diagnosis, except for measures of delinquency (psychotic = 19.4% vs. non-psychotic = 28.9%). Rates of disability and mortality for the psychotic group were 72% and 12.2% respectively, compared to the non-psychotic group, 27.6% and 9.2%. An overall finding of good outcome was found in

44.7% of subjects with no psychosis, whereas good outcome was less often found among the subjects with psychosis (7.3%). The findings of this and other longitudinal data must be tempered with the knowledge that early experiences of test subjects in the 1960's through to the early 1980's was highly influenced by the limitations of medical treatments for that time, and hence, a greater overall lifetime of poor functioning due to long periods of instability may be the result. Findings from other longitudinal investigations have shown that "prognosis is affected less by the disorder than by whatever other adaptational assets one has to survive it, one end result of which may well be compliance with prophylactic treatment" (Werry & McClellan, 1992).

Implications of Bipolar Disorder in Educational Growth

Bipolar disorder like other serious psychiatric illnesses is associated with developmental and cognitive anomalies, some of which are directly due to the effect of these illnesses upon growth and maturation of youth, including intellectual deterioration (Dalby & Williams, 1986). Although the association of long-term impairment with schizophrenia is well established, such a relationship has been less clear with BPD. 'Executive functioning' impairment in students with BPD and schizophrenia is currently receiving attention. Stratta and colleagues (1997) characterize this impairment as decline in abilities related to planning, sequencing, concept formation, and regulation of goal-directed behavior. Recent data suggests that there is a negative correlation between cumulative lifetime episodes of mania and depression and decline of verbal memory and executive functioning as found by established neurocognitive measures (van Gorp et al. 1998; McKay, Tarbuck, Shapleske & McKenna, 1995). In other words, being unstable

over decades (whether due to lack of medication available, medication non-response, or lifestyle choices which interfered with treatment), contributes to neurological impairment even during well states.

Investigations of neurodevelopmental antecedents and long term outcome in bipolar children are emerging. Maintenance of careful health and school records provided a database for a follow-up study which isolated the antecedents of adolescent psychoses in a student population (Hellgren, Gillberg, Enerskog, 1986). Matched controls were contrasted with the subject group with notable results. Neuromuscular and orthopedic problems were found among 5% of controls vs. 27.5% of the subjects ($p=0.006$). The developmental measurement 'DAMP' (Deficits in Attention, Motor control, Perception) was nine times more likely in the subject group than in the control group. An older maternal age at birth was more prevalent in the subject group, as was an onset of walking after 14 months of age. Overall, total neurodevelopmental problems of any kind were found in approximately ¼ control students, as compared to 80% of the subject students ($p=0.001$). A more recent British study examining this pre-morbid neurodevelopmental component in BPD compared growth on several developmental measures using youth with unipolar depressive disorders as a comparison group. The conclusions drawn from this study suggest that BPD is more likely preceded by neurodevelopmental anomalies identified in delayed language, social, or motor milestones in comparison to unipolar disorders (Sigurdsson, Fombonne, Sayal & Checkley, 1999).

Measurement of thought disorder in serious psychiatric illnesses has a long history. For example, Daniels et al. (1988) compared the patterns of thought disorder in subjects with schizophrenia and bipolar disorder with controls who experienced right

cortical damage (head injury). Comparison with this particular control group was attempted because "unlike patients with damage to the left hemisphere, the linguistic functions of patients with right hemispheric cortical damage are not obviously disrupted, and thus the assessment of thinking pathology is not confounded by basic language and speech disorders" (p. 944). The authors found equivalent total amounts of thought disorder among BP, schizophrenic, and head injured groups, but the actual kinds of thought disorder varied as expressed by patterns on various tests.

A recent Canadian study measured school performance prior to and after the emergence of BPD for long-term effects of the illness (Quackenbush et al. 1996). Average length of illness from time of the first episode onset to time of intervention or assessment was 4.1 years. School records showed that prior to illness onset, 70% of the subjects had evaluations of 'excellent' work effort. These youths were also described as particularly strong in creative pursuits like visual and written arts. Post-illness assessment described a serious decline in work effort, grades, motivation, and attendance. Pre-morbid peer activities showed 1/3 of the subjects had demonstrated leadership qualities or strengths of some sort, and more than 2/3 of subjects were involved in extracurricular activities. Post-illness assessment of these criteria found marked changes on these measures. None of the subjects were described by school staff as having any leadership potential, and almost 2/3 were experiencing peer difficulties, particularly with losses of previous activities and friendships. The older subjects who were enrolled in university-entrance classes (83%) and were bound for post-secondary pursuits often failed to graduate the year they were supposed to - only 38% of those eligible to graduate did so. Conclusions which can be made from these findings are that in cases where schools

become participants in treatment and create learning programs to accommodate recovery, students with BPD are more successful in reintegration. The findings of this study are, however, limited to the age group since the subjects had onset of illness in middle school years. The overall pattern of school functioning seems to differ slightly from illness that has a pre-pubertal onset in that students who develop BPD in early childhood have a more erratic academic and peer experience within school. One implication from this study is a social-emotional treatment focus while the student is in the hospital. Teaching 'social effectiveness' to similarly disturbed students while inpatients could increase positive adjustment back into the regular school. This may be an important factor to consider in designing transition plans, according to Forness and Barnes (1981). More recently, Biederman and colleagues (1999) studied the impact of comorbid conduct disorder in youngsters with BPD. The data also isolated history of school dysfunction among the sample. For the context of the study, school dysfunction was defined by one or more of the following criteria: Repeating a grade, any special education placement, or a need for tutoring. Both groups of students (those with BPD only or BPD + conduct disorder) had significant levels of school dysfunction in their academic histories prior to inpatient admission: 24% had repeated a grade, 43% had a previous or current placement in special education classes, 58% had received tutoring, and 13% were diagnosed with some type of learning disability. Although a causal model linking school difficulty and the emergence of BPD cannot be confirmed, the findings strongly suggest the risk of academic failure increases with the presence of BPD and behavior problems. Students who eventually develop full-blown BPD typically have 'soft signs' of eminent illness onset that are first detected in the school setting. While schizophrenia has a more

insidious onset and gradually emerges over a period of months or even years (Carlson, Fenig, Bromet, 1994), BPD can have an acute onset over a period of weeks. The onset pattern among BP patients as a population, however, varies widely. A teacher who has had a long relationship with a student may be able to assess changes from his or her normal personality and functioning (Olin et al., 1998). Observing deterioration is difficult to do however if school staff have never known the student to be well or if the student does not have contact with the same staff from school year to school year.

The literature most relevant to school-based assessment of students with serious psychiatric illnesses generally focus on language/communication disorders and cognitive/intelligence testing. Patterns of language dysfunction in students with BPD and schizophrenia depend upon the subtype of illness, period of remission, and effectiveness of medication upon soft signs of thought disorder. Idiosyncratic presentation of communication abnormalities was examined recently by comparing deficits in working memory and attention between outpatients with schizophrenia and bipolar disorder, and a matched healthy control group. The findings supported deficits in working memory and attention in the etiology of expressive language difficulty (Docherty et al., 1996). The implication from this and other reports indicate the prudence of routine evaluation from a speech-language clinician to estimate current level of language functioning, but also to obtain a baseline from which to measure deterioration or improvement. The presence of a language disorder may be a barometer for the current level and residual effects of the illness and hence provide a manifestation of unseen processes.

Intelligence testing has been utilized with students who have bipolar disorder not only as part of a comprehensive assessment battery, but also in measuring efficacy of

treatment and level of residual impairment due to illness effects. Early work in investigating correlates of childhood psychiatric disability found that social class and its related variables had less of an association with the illnesses than did IQ scores, (Beitchman, Patterson, Gelfand & Minty, 1982). The finding implied that IQ is a tangible measurement of internal cognitive processes that illustrated trends in students who became ill. While early onset schizophrenia is characterized by lower Full Scale IQ (FSIQ) than the statistical norm, there is no consensus about test patterns for students who develop BPD. Current literature illustrates a wide margin of ability in cognitive measurements of this population – from significantly below to significantly above average FSIQ, as well as no trends to significant discrepancies between Verbal and Performance IQ measurement (Forness & Kavale, 1989). Wozniak and colleagues from Harvard Medical School (1995) found WISC-R Full Scale, Verbal, and Performance IQ scores to show little variation: all three measures were between 102 and 106 in their sample of 43 manic children aged 12 or younger. Measurements of school functioning found that 19% had repeated a grade, 45% had received tutoring, and 1/3 had some sort of special education placement. These data suggest that although the group's cognitive measures were within normal range, the current status of coping with their role as students was discrepant.

Decina and colleagues (1983) found in their sample of offspring of bipolar parents, half of whom had a psychiatric diagnosis at the time of the study, significant trends in their cognitive measures. A discrepancy of 15 points or more between the verbal scale and performance scale was found in 11% of the controls but in 39% of the BP group. The full scale IQ scores among the BP group ranged from 80 - 143, and

approximately 1/3 of subjects in the BP group had a FSIQ of 120 or higher. These findings suggest a neurological vulnerability passed on to the offspring of parents who are genetic carriers of a BP diathesis. Biederman, et al. (1999) found in their sample that youths with BPD had a slightly higher full scale IQ scores than manic youths with comorbid conduct disorder ($M = 102.6$ vs. $M = 97.1$). Comparing the same groups, the authors also found that there was a modest point discrepancy between verbal and performance scales in the manic group (7.4) compared to the manic + conduct disorder group (0.9). In contrast to earlier findings which suggest that childhood onset portends a worse outcome academically and cognitively, Faraone, Biederman, Wozniak and Mundy (1997) found in their sample that the adolescent onset bipolar students were functioning slightly below that of the childhood onset students. Childhood-onset manic students, both younger and older during the time of the study, had mean prorated full scale IQ scores of 102 and 108, respectively. Adolescent-onset manic students had a mean prorated full scale IQ score of 90. Furthermore, the presence of any learning disability was modestly higher in the adolescent-onset versus childhood-onset groups. Intelligence measurement has also been utilized to establish a baseline of functioning, similar to assessment of language disorder.

The application of cognitive testing for ill students is primarily qualitative – the inferences are far broader than obtaining a simple quantitative measure of intellectual capacity. The current direction of research suggests that where the developmental point at which a student begins to experience a decline in social adjustment, an association with intelligence measures may be observed (McKay et al., 1995). The earlier in development (childhood vs. adolescent vs. adult onset) that the person is struck by the illness, the stronger the association between cognitive impairment and overall lower IQ scores.

Additional qualitative information for educational functioning may be obtained through reviewing school records regarding attendance, behavior, and grades for all students appearing to decline academically and socially. Teachers are valuable sources of information regarding the student's typical temperament and habits, and descriptions of aberrations in behavior.

Inpatient Education Program

Admission to a psychiatric treatment unit may require a period of assessment and treatment ranging from days to months. Treatment non-responsiveness often results in chronic illness and in such circumstances the patient may require long term residential care (Okin, 1995). The decision to have an adolescent inpatient attend the hospital school depends on mental status (for example, whether or not the patient is experiencing psychosis or suicidal thoughts) which may preclude participation in any structured activities, and the estimated duration of admission to the hospital. The cognitive impairment discussed previously is a concern for inpatient education since memory and orientation to present time and the patient's surroundings are minimal requirements for instructional participation (Forness & Cantwell, 1982).

Hospital educational programs vary widely in their structure (Forness, 1982). Teachers may or may not have special education designation or graduate degrees. Inpatient teachers are part of a multidisciplinary team of physicians, psychologists, social workers, occupational therapists, and nurses, and thus the environment is one where (unlike a regular school environment) educational instruction is only one of many objectives for the student's time spent in hospital (Goldfarb, 1992; Forness, 1982;

Forness & Langdon, 1974). Instructional time is not usually longer than 3 hours (or one-half day) so that the patient is also able to attend treatment sessions in group or individually (Goldfarb, 1992; Forness & Barnes, 1981). According to Goldfarb (1992) however, the amount of time allocated to educational activities can be a barometer of the inpatient school's place in the hospital system where "the value placed on school programming can be measured on a continuum ranging from a necessary evil to an integral part of the treatment plan" (p. 39). Deciding what each student should or is able to learn is less associated with diagnosis and more often related to individual ability to attend, participate, and self-regulate behavior (Forness & Langdon, 1974). Class size is reduced compared to those in mainstream classes due to the greater educational needs of this particular population and the corresponding level of tutoring and small group work most conducive to students with psychiatric illnesses.

The Transition Process – Educational Aftercare Planning

One goal of educational aftercare planning for a student who is being discharged to a receiving school from inpatient psychiatric treatment is a smooth transition into the role of student in a regular school setting (Rothaus & Wolkon, 1977). A crucial aspect of this transition process is thorough understanding by the receiving school staff of the nature and implications of serious psychiatric illness upon the continued needs of these students (Forness & Kavale, 1989). Teachers and special education coordinators in regular community schools are faced with the task of creating a learning environment best suited to the needs and strengths of a student with BPD within a school's established resource program for learning disabilities and behavioral disorders. In their study of

psychiatric diagnosis and its relationship to school needs, Sinclair, Forness and Alexson (1985) address this ‘goodness of fit’ between the medical and the educational domains: “Certain educational or behavioral views of clinical disorders continue to be unnecessarily restrictive and fail to consider certain problems of the child in his own context” (p. 333).

Conceptualizing severe psychiatric illnesses like BPD or schizophrenia within an educational perspective is difficult for educators without any background or extensive knowledge in mental health because of their medical complexity and unique combination of symptoms similar to other human conditions such as developmental disorders and neurological disease. In Canada and the U.S., the educational terms ‘emotional /behavior disorder’ (EBD) and ‘serious emotional disturbance’ (SED) are used to designate a specific subcategory of students who require additional or modified assistance in their educational plan in excess of the typically delivered curriculum (Handwerk & Marshall, 1998). Those who comprise the population of EBD/SED designated students are overwhelmingly children with difficulties surrounding impulsivity, aggression, hyperactivity, attention, and self-esteem – in other words, conduct and attention deficit disorders (Bauer & Shea, 1999). Classroom behavior management planning is usually an urgent need. The difficulties of these children, especially surrounding classroom and peer-related behavior, are ongoing and highly influenced by environmental events (Breggin, 1998). Home and parent variables are highly related. An emphasis is placed upon behavior management strategies and positive interactions with teachers and peers.

This generalized profile of EBD does not fit with BP students. The education term ‘EBD’ when used in reference to a child with BPD or schizophrenia in need of special

education programming may unintentionally minimize the serious neurological nature of psychotic illnesses by grouping them with less serious or less impairing disorders. In other words, the behavior which may result from a psychiatric illness may be less important than the impact of skewed mental processes that are so drastically affected by the acute presence of the illness. This focus is in contrast to challenge of working with conduct disordered children whose priority for programming is reduction of violent behavior and creating behavior plans. Symptoms such as delusions, thought disorder, and manic outbursts benefit from the effectiveness of behavior modification little more than do epileptic seizures. This is in contrast to the positive impact of behavior management plans upon impulsivity, aggression, and upon children with EBD in general (AACAP, 1997). BPD is not the result of any particular home environment, ineffectual parenting, poverty, or an unhappy childhood. A child can be seriously ill without posing any concern for classroom management (Forness & Cantwell, 1982), and the seriousness of a childhood disorder is not necessarily tied to the level of difficulty involved in educating the student in a normal setting. Furthermore, the term EBD has no informative value in regards to the mental health needs or disorder descriptors of each individual student. An analogy would be the terms 'insanity' (a legal term) and 'nervous breakdown' (lay person language for psychiatric decompensation or crisis). Such terms are nonspecific, have no meaning in psychiatric language, and yet make an assumption of a minimal amount of homogeneity in its membership reference (Forness & Cantwell, 1982).

A further dichotomy between students who are typical designates of the EBD label surrounds the use of medication. Concerns have been thoughtfully expressed in the literature about administration of stimulants and other drugs to children with aggressive

or hyperactive behavior difficulties (Breggin, 1998). For children with BPD medication is stabilizing and restorative. Mood stabilizers and antipsychotics are vital precursors to recovery and are to BP children what insulin is to diabetic children (Fuchs, 1994). Medication treatment for students with BPD may help preserve the long-term integrity of their neurological functioning (vanGorp et al., 1998) and furthermore, poor or non-response may preclude the participation in education altogether (Jacobsen & Rapoport, 1998). Students who have conduct and attention difficulties mostly experience them over several grades. This long term and relatively predictable presentation of target behaviors lends itself to consistent application and reinforcement of a well-designed IEP. Students with BPD may experience acute episodes which are then interspersed with periods of remission or wellness, making it more challenging to design an IEP for a student who may seem vastly different depending on illness status.

Students with BPD have chronic issues of illness management that are addressed through medication and lifestyle choices. Their educational needs may more closely resemble those of students who are chronically 'medically' ill. The theoretical fit of this analogy could be tested by reviewing an article written about the academic needs of chronically medically ill children (Sexson & Madan-Swain, 1993). In doing so, replace the subject 'medically ill' with BPD and then determine whether the arguments made for particular educational interventions based on the life-management of the unique needs of the students discussed is applicable. Most of the pressing concerns for maintaining educational progress in medically ill students are replicated in the planning required to meet the needs of students who develop BPD. Prolonged school absences, fear and rejection from classmates due to the nature of their afflicting illnesses, and the lifelong

biological nature of these medical and psychiatric disorders lend themselves to similar programming needs. Further, the treatments for medically ill students such as radiation and those for students with serious psychiatric illnesses (i.e. neuroleptics) can interfere with school performance, and thus may require similar consideration in educational planning. Students with BPD, like most chronically ill students, will not 'outgrow' their disability whereas, theoretically, conduct disorder and attention deficit disorders can remit into adulthood or improve with behavioral, ecological, or socioeconomic intervention (APA, 1994). The actual symptoms caused by chronic medical illnesses - much like thought disorder or psychosis in BPD - are not directly influenced by behavioral or ecological modifications. The student's perceptions, self-acceptance and the level of stress surrounding daily life with their disabilities may, however, be influenced by these interventions (Gillberg, Hellgren, Gillberg, 1993). Awareness and education of the barriers students with SPI face in a similar way to chronically ill children may lessen the impact of exclusionary practices on a personal, community, and societal level.

Successful school reintegration programs for the chronically medically ill student consider academic transitioning as one aspect of the student's experience returning to his or her regular school. The innovative and detailed reintegration program described by Worchel-Prevatt and her colleagues (1998) served student patients with cancer and sickle-cell disease ages 6 to 18 years and is based upon a conceptual model of chronic medical illness and children's mental health. Reintegration team activities ranged from determining individual student needs, fears, and current emotional and physical well being, to education of the family and school staff about how to approach particular

problems. For example, in one case the team assisted the teacher of an ill student “who had unrealistic expectations of the child and lack of understanding of effects of the disease on the child’s school performance” (p. 271). Other activities would include involving social services for parental respite or financial assistance. The reintegration team established and maintained contact with the primary inpatient teacher as an ongoing resource for regular school programming. Upon continued follow-up, the reintegration team also reviewed and recommended any changes to the IEP.

Role responsibilities within the transition planning process of educational aftercare will vary or become vague if there is no set protocol or explicit interagency cooperative agreement between the hospital, the receiving school and other community-based agencies such as Health and Family Services. Forness (1982) developed a set of recommendations for educational aftercare planning and the designation of certain roles. First, responsibility for the development of an IEP should be explicitly outlined before the student is discharged from the inpatient unit. These jurisdictional matters should be mutually agreed upon and may depend upon several factors such as how long the student attended the receiving school (if at all) prior to illness onset, the length of inpatient admission, the status of the student’s mental health upon discharge, whether the student actually attended the inpatient school, and if so, for how long. Second, Forness recommends that inpatient school staff develop an IEP for a student who attends the inpatient school for longer than one month. Third, a designated patient advocate from the hospital should be assigned to assist the family and the student at educational meetings with the receiving school, conduct and/or utilize information from inpatient educational evaluations, and act as the director of the IEP planning process in conjunction with the

receiving school staff. The work of an advocate could also extend to professional development with receiving school staff surrounding the disorder itself and the staff's feelings about the student returning. Sexson and Madan-Swain (1993) see this advocacy role having an impact in two ways. First, receiving a student who has a disorder that is mystifying to teaching staff makes it difficult to develop appropriate expectations for work product, motivation, and ability to participate. The advocate could provide this valuable information. Second, the smooth transition and settling of a student with BPD back into a regular school setting after discharge "is dependent on the attitudes and preparedness of the teachers and other school personnel" (p. 119). Furthermore, preparing the school staff could then allow these teachers to prepare classmates for the return of the recovering student.

In a later report, Forness and Kavale (1989) discuss IEP's and the interdisciplinary process for children requiring special education services. Within the challenges of educational planning and jurisdictional matters for disturbed students there is a risk of diagnostic and assessment data from the hospital not being considered within the long range programming for the student. The authors state that recent trends have shown an increase in collaboration between schools, hospitals, and other agencies. This trend would necessitate clear boundaries and responsibilities of all parties. At the UCLA Neuropsychiatric Institute inpatient school - the innovators in educational programming for students with psychiatric disabilities, inpatient school staff had jurisdiction over educational and achievement testing, "and for educational placement in community public school programs upon discharge" (Forness & Cantwell, 1982, p. 59).

Inpatient staff perceptions of their role responsibilities in educational aftercare planning was measured by Rothaus and Wolkon (1977). In this report, none of the staff surveyed from three separate psychiatric treatment units were aware of any clearly developed liaison agreements with receiving schools and their respective hospitals. The ambiguity around role responsibilities is one finding that emerged from this study. Some schools were not contacted by the hospital regarding impending discharge or plans for the particular student. Almost all of the inpatient staff who were interviewed (97%) agreed that the transition planning process was the responsibility of the hospital, however more ambiguity surrounded who was responsible for the implementation of any aftercare plans once agreed upon. An average of 15 hours was spent by at least one or more inpatient staff members in educational aftercare planning. The authors conclude that accountability for program implementation, review, and evaluation is compromised with role confusion, lack of clear protocol for communication, and the absence of formal interagency agreements. Goldfarb (1992) makes detailed suggestions regarding communication and planning for adolescent inpatients by hospital and receiving school staff. Bi-directional sharing of information is the most important component of developing effective hospital-school transition plans. Permission should be obtained early in the student's admission to allow diagnostic processes to be more thorough via access to complete student histories. According to the author, all inpatient students should have detailed discharge summaries and an IEP that is readily available to receiving school staff. The inpatient student advocate should attend all receiving school educational meetings that are held on behalf of the returning student. Furthermore, hospital school staff should investigate all possible educational options for the student upon discharge, including a placement (if appropriate)

at a school other than the one a student has previously attended. This will ensure that the student will receive the best possible educational setting based upon his or her needs rather than having the student fit into the existing milieu and programming of the previous home school.

METHOD

Sample

The sample was drawn from a psychiatric treatment facility serving adolescents with a residential program, day treatment program, and follow-up. The facility takes direct referrals from community and receives long-term treatment and intensive assessment cases transferred from psychiatric units in general and teaching hospitals. A stand-alone school housed within the unit delivers the academic programming. The inpatient school program is fully sanctioned by the provincial department of education and offers regular credit courses, although in order to graduate from grade 12 the student must be affiliated with a community school to receive a diploma. Students were enrolled in a variety of typical middle school and senior years core subjects in addition to electives such as industrial arts and physical education.

The subjects were pre-selected based upon a discharge diagnosis of Bipolar Disorder type I or II as recorded in the medical chart at the inpatient unit. A database search of the corresponding diagnostic codes produced 37 consecutively discharged cases between 1986 and 1996. As each chart was individually reviewed, four of the 37 cases were excluded. Three had changes in respective diagnoses (one post-traumatic stress disorder, two schizophrenia) after discharge, usually during outpatient follow-up service. A fourth case was excluded because there was no definitive diagnosis given at discharge. This particular case was the first in the database search and therefore the temporal range was reduced from an 11 year period to a 10 year period (1987 to 1996). One case with a discharge diagnosis of schizoaffective disorder (manic type) was

included because the diagnosis was made during the period when the APA did not allow mood-incongruent psychotic symptoms in a diagnosis of BPD. It is possible that the student was suffering with BPD or that he/she would have a similar medical and educational experience to the other 32 subjects. A final sample of 33 subjects was the result.

Attendance at the inpatient education program was not mandatory for case selection. This ensured that students who had short admissions as well as students too ill to attend the school were not excluded, thus creating an artificially 'normalized' sample. Descriptive data of the subjects are illustrated in Table 1.

Table 1. Descriptive data and characteristics of sample (n = 33)

Characteristic	Description
Female gender	20 (61%)
Residence locality	
Large urban	26 (79%)
Small urban	6 (18%)
Rural/reserve	1 (3%)
Mean age at first psychiatric admission	15y 2m (SD = 1y 11m)
Mean age at last discharge from unit	17y 2m (SD = 1y 3m)
Initially transferred from other hospital	13 (39.4%)

(SD = standard deviation)

Data Collection and Analysis

The data collection involved three phases - chart review, inpatient staff interview, and receiving school staff interview. Analysis of trends in planning and recommendations for inpatient students returning to an academic or vocational program was the primary focus of the study. Whether or not the students actually returned was not a criteria for

inclusion since the intent to return inferred a potential transition plan for school reintegration.

Chart Review

Phase I involved a retrospective chart review of adolescents discharged from residential or day hospital treatment. A five page data recording outline was constructed for each case file (see Appendix A). Information was gathered in relation to length of admission and attendance at the inpatient school, educational progress and response to treatment. The charts were also reviewed for information directly relating to future educational placement and individual education program recommendations. Additionally, the type and amount of contact between hospital staff and the regular school staff was recorded (i.e. telephone calls, exchange of historical and assessment records, team meetings). Lack of recorded contacts in the charts were also noted and considered a trend in regard to the formality versus informality of educational aftercare planning activities. Role responsibilities and expectations with respect to hospital and regular school staff were inferred from case notes. Trends in the types of educational recommendations being made in the case notes were identified. Age of onset (for example, pre-puberty or adolescence) was noted since length of prodromal emotional disturbance prior to acute illness onset significantly impacts the quality of student performance over many academic years.

One drawback of this chart review was that educational data available for review were only those included within the medical chart. Cumulative files on each student's complete academic history were not accessible, therefore in many instances educational

data that might be relevant to the study were missing. This reduced the number of inferences that could be made regarding the impact of BPD upon the subjects' roles as students.

Inpatient Staff Interview

Phase II of the study involved interviewing three key members of the inpatient educational and medical staff. Four inpatient staff members were initially contacted via letter with an invitation to participate and three consented. One participant had been working at the unit for less than five years, while the other two had been with the facility for more than ten years each. Interviews were based upon pre-determined questions (see Appendix B), took place at the inpatient unit, and lasted approximately two hours per participant. The questions primarily focused on a) general areas of strength and good practices in communication and planning around school reintegration; b) areas in need of strengthening surrounding communication and planning in reintegration and; c) the set policies and roles of hospital staff for initiating contact with regular school staff during planning. One goal of the interviews was to gather perceptions of inpatient staff regarding the value of the receiving school as an aftercare resource. Another goal of the interviews was to formulate a picture of the perceptions of inpatient staff about their roles in the educational aftercare process and the personal experiences they had with staff from receiving schools and/or divisions.

Receiving School Staff Interview

Phase III involved similar interviews with key persons who had responsibility for or an important role in the implementation of educational and transitional plans for students discharged from psychiatric hospitals. Five people were contacted from three different school divisions via letter from their respective divisional offices. Four receiving school staff were interviewed - each from different schools, representing all three divisions. Deciding who was to be contacted in each division was narrowed down to only those staff whose respective schools received at least two or more students from the inpatient unit. This provided additional confidence in the interview results since the experiences could then be more generalized and were less apt to be skewed by a single positive or negative experience with a particular transition. All four participants had twenty or more years of experience in the field of education, had begun as classroom teachers, and eventually moved forward to educational specialties and further professional development. The receiving school staff members represented a variety of roles: resource teaching, administration, and school counselling.

The purpose of the receiving school staff interview was to gather perceptions of role responsibilities with respect to inpatient school contact, to examine the current process for good transition practices and areas in need of improvement, and the helpfulness of hospital-generated information for receiving school programming. Further, comprehension of BPD specifically and serious psychiatric illness in general, based on the detail and language of hospital-generated information or exposure through staff professional development, was discussed. Some of the interview questions (see Appendix C) were repeated from the inpatient school staff interview to contrast mutual perceptions.

It was hypothesized that most regular school staff possess some, but not an extensive, base of knowledge about the disorder as it relates to symptoms and course of illness impact upon educational progress. The usefulness of hospital-generated information as it addressed this concern was noted. Consideration of the social and emotional aspect of transition from hospital to receiving school in the educational aftercare planning by receiving school staff was also of interest. Maintenance of contact between inpatient school staff and the receiving school staff after the student was discharged and re-integrated, as well as the bi-directional sharing of information – who initiates the contact, degree of openness and degree to which the past and current information of student is utilized and considered valuable, were explored as measures of the quality of the professional relationships between the key players.

Analysis

Data generated from the three phases of this proposed project was analyzed according to the qualitative research methods outlined by Taylor and Bogdon (1998). The more lengthy inpatient staff interviews were recorded and transcribed, whereas the receiving school staff interviews were shorter in duration and detailed notes were kept during each discussion. Two receiving school staff interviews occurred over the telephone. All participant statements were rated according to their fit with a variety of themes related to the original research question. Statements that did not fit with these themes, such as statements of personal feelings or reflections, were placed into a ‘general impressions’ category. These general impressions were not directly reported as data but rather were utilized in setting the tone of how concrete transition experiences were

interpreted. Since this study was primarily qualitative in design, chart data were analyzed according to basic descriptive statistical procedures.

The data collected from all three study phases were categorized around the following themes or trends. Medical profiles, including general health and psychiatric domains, were developed with the goal of gaining a comprehensive understanding of the major impact of the illness upon functioning. Developmental histories and other childhood health data were noted. The medical and psychiatric profile provided key information on the specific challenges facing youths with BPD in academic and community environments. Second, educational profiles were developed and included premorbid educational history (if available in the chart), inpatient cognitive and psychological data, and educational assessments. Third, educational recommendations as determined by inpatient medical/educational staff were noted based upon assessments, observations, and their opinions of how each student's needs might be met at the receiving school. Fourth, planning policy and activities were examined. Meetings, document exchange, establishing roles between hospital and receiving school staff were analyzed for trends, best practices, and gaps. Fifth, the formality versus informality of the planning process was a key factor since lack of formal policy guiding communication and planning infers reduced accountability for the success of the transition plan, consistency of planning strategies and responsibilities, and evaluation of the transition process over time and with various schools. Analysis of data from all three phases generated detailed recommendations for education and transition planning of students with BPD and perhaps other serious psychiatric disabilities.

RESULTS

Medical and Psychiatric Profile

Childhood Development and Medical Phenomena

In addition to antecedent emotional disturbances commonly observed in people who eventually develop serious psychiatric disorders, childhood development and medical histories are often investigated for clues to comorbid afflictions or abnormalities that may be predictive of dormant psychiatric illness. In this sample, general aches and somatic complaints, including diffuse joint pain, were very common. More than two-thirds of the subjects experienced regular headaches and gastrointestinal disturbances throughout the toddler and elementary school years that produced repeated visits to a physician. The presence of breathing difficulties was also noticeable. Seven subjects (21%) had a documented history of moderate to severe asthma requiring ongoing medical care during childhood. Within this group, five subjects (15%) experienced persistent asthma into middle or later adolescence that required treatment during admission to the unit.

Delays in developmental milestones and/or abnormalities were recorded in 17 subjects (51.5%). Considerable delays in toileting, rather than achieving toileting and then regressing, resulted in chronic enuresis and encopresis into middle-elementary school in five subjects (15%). Delay in onset of walking (as opposed to achievement of independent mobility) after age 14 months was recorded in eight subjects (24%). Of this subgroup of youth with delayed walking, the mean age of onset for walking was 17.6 months. Three subjects (9%) had delays in speech production. In these instances, the

subjects did not begin to speak words in a communicative fashion until ages 2, 2.5, and 3 years, respectively.

Six subjects (18%) had reported abnormalities with fine and/or gross motor development. For example, muscular hypotonia, awkward or feeble gait, and neuromuscular degeneration after appropriate development were conditions noted without a satisfactory explanation or indication of disease origin. Four subjects (12%) were born at least two or more weeks prematurely, with the most premature being seven weeks pre-term. Other notable conditions in the case files included one subject who experience seizures at age 2.5 years, one subject with a cleft palate and lip, one with congenital dislocation of the hip requiring a body cast, another subject who had an abnormal EEG and an enlarged right pupil prior to onset of BPD, and one subject who had an identified temporal lobe lesion. In total, 18 of 33 subjects (54.5%) had recorded delays or abnormalities with a) age-appropriate milestones, b) asthma and multiple allergies, or c) neurological/neuromuscular/orthopedic development.

Psychiatric Profile

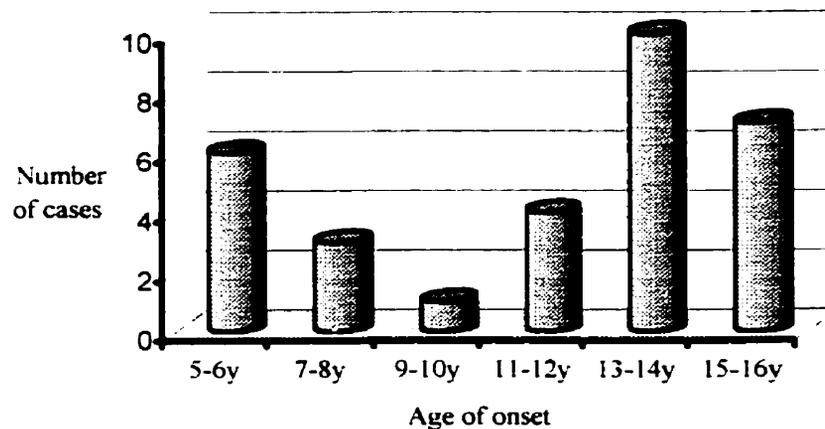
Many of the subjects had significant personal and family histories of emotional and functional difficulty prior the onset of BPD. Positive family history for psychiatric morbidity, including mood disorder, schizophrenia, panic/agoraphobia, obsessive-compulsive disorder, alcohol or substance abuse, or suicide, was present in 31 subjects' (94%) immediate (siblings, parents) or extended (grandparents, aunts/uncles, first cousins) blood relatives. Two subjects were adopted and thus biological family histories were not available.

Extensive and detailed histories of emotional functioning through early childhood to the point of first psychiatric hospitalization was available from multiple sources for 32 subjects. From this collateral data an estimate could be made about the onset of any prodromal emotional disturbance subsequent to the acute emergence of BPD. Although the treatment unit served adolescents, the onset of difficulties ranged from toddlerhood up to middle adolescence. While some subjects had acute onset of BPD with little or no indication of prior deterioration or childhood dysfunction, other subjects had experienced in their short lifetimes chronic and multiple emotional, behavioral, and health-related problems prior to diagnosis of BPD. In some cases, the emergence of BPD was evident in the case histories yet diagnosis was not made until 5 or more years after initially becoming acutely ill. The mean estimated age of onset of any emotional disturbance significant enough to be noted in clinical case files was 11.7 years of age. The cases ranged widely, from age 5 years to age 16 years, and appear to have a bimodal distribution (Figure 1). When acute symptoms of depression or mania/hypomania finally emerged, they persisted on average for approximately six months prior to initial hospitalization. There was a tremendous range in acute symptom duration; anywhere from a few weeks up to two years.

Alcohol and substance (sniff, illegal substances, prescription narcotics, controlled substances) abuse was of particular interest in this study given its impact upon general health, treatment success, and academic performance. Twenty-one subjects (64%) had no concerns with alcohol or substance use. Seven subjects (21%) had a history of alcohol/substance abuse both prior to and after their first psychiatric hospitalization. Five subjects (15%) engaged in alcohol/substance abuse after initial psychiatric hospitalizations.

The emergence of psychotic symptoms was also noted in this sample. When present, psychosis in BPD often portends a more serious or guarded outcome. Delusions, hallucinations, or catatonia may be present during either the manic or depressive phase of BPD, except during hypomania. The emergence of any psychotic symptoms was noted in 27 subjects (82%). Within this group, 70% experienced delusions, 58% had hallucinations, and 21% were catatonic at some point during their treatment history.

Figure 1. Age of onset of prodromal emotional disturbance



Hospitalization and Treatment

The treatment histories for this group of BP students generally reflected multiple hospitalizations, medication trials, and relapse-recovery cycles. They tended to spend considerable time away from their homes, families, schools, and communities during their adolescent years due to long or multiple admissions. Trends in admissions of a psychiatric nature were examined and considered in light of other factors such as onset age of prodromal emotional disturbance, substance abuse, and treatment adherence. Entry to the residential or day hospital programs was counted as an admission. Outpatient and

follow-up services were not examined at all, nor counted as separate admissions. A change from day treatment to residential status, for example, was considered a separate admission since it indicated change in mental status and/or level of care required.

Mean lifetime admission days for psychiatric treatment at last discharge from the adolescent unit was 484 days (SD = 379). The average subject in this study, therefore, spent more than one cumulative year in day and/or residential treatment for BPD. There was a tremendous range in the total admission days, from 30 to 1558. These total admission days were distributed among multiple hospitalizations however; the group mean was 3.6 (SD = 2.7) admissions. Each individual admission, then, was approximately 133 days in length. As was noted earlier, onset age of prodromal emotional disturbance ranged from pre-school age to middle adolescence, and the range of ages for first psychiatric hospitalization was similar – 8 years 11 months to 17 years 7 months. The mean age at first admission for psychiatric treatment was 15 years 2 months (SD = 1y 11m), while the mean age at last discharge from the adolescent unit was 17 years 2 months (SD = 1y 3m). The majority of subjects (n = 27) had both day and residential admissions. A small group of subjects received residential treatment only (n = 6) or day treatment only (n = 3).

Approximately 1 in 4 subjects (27%) had at least one discharge against medical advice (AMA). This occurred if the adolescent was competent enough to withdraw consent or when the parent/guardian removed their child from the unit against the recommendations of the primary physician. Discharges AMA are one indication of treatment non-adherence. Discontinuation of medication, refusal of medication, and abusing alcohol or substances during treatment were also considered to be evidence of

poor- or non-adherence to the treatment designed to manage the symptoms and recurrence of BPD. Two-thirds of the sample were medication non-compliant at some point during their treatment and this was the single greatest cause of illness relapse and hospital re-admission. On average, subjects received a trial of 4 to 5 different psychotropic medications, but individually this ranged from 1 to 12 medications. The number and variety of medications varied depending on the emergence of psychotic symptoms, a change in diagnosis, or in switching from acute to maintenance stages of treatment. The most commonly attempted mood stabilizer, neuroleptic, and benzodiazepine were lithium ($n = 24$), methrotrimeprazine ($n = 20$), and clonazepam ($n = 6$), respectively. The mean number of medications at last discharge was 1.84, however eight subjects (24%) were discharged without any medication.

Onset age of prodromal emotional disturbance was examined in relation to hospitalization trends (Table 2). Childhood onset (age 12 years or younger) portended longer total days in hospital, more admissions, and longer days per admission than those subjects who had onset at 13 years or older. In general, early onset predicted a more serious hospitalization experience. Furthermore, a greater proportion of subjects with childhood onset had admission durations above the group mean of 133 days.

Hospitalization and treatment experiences were also affected by the ability to maintain medication regimes and remain alcohol and substance free. Substance use (including alcohol) increased the number of lifetime admissions and the total days spent in hospital (Table 3). Medication non-adherence increased total days in hospital and number of admissions, however the mean admission duration was lower than those subjects who

took their medications as prescribed (Table 4). One explanation for this finding is that these subjects were more likely to leave hospital AMA and/or avoid treatment.

Table 2. Onset age of prodromal emotional disturbance and hospitalization

	Childhood onset (n = 14, M = 8.1 years)	Adolescent onset (n = 18, M = 14.5 years)
Mean total admission days	620	398
Mean number of admissions	4.2	3.3
Mean days per admission	147	120
% above mean admission	50%	28%
% below mean admission	50%	72%

Table 3. Substance use and hospitalization patterns

	Total days in hospital	Lifetime admissions
No substance use	443	3
Substance use	556	4.5

Table 4. Medication adherence and hospitalization patterns

	Total days in hospital	Lifetime admissions	Days per admission
Adherence	456	2.9	157
Non-adherence	498	4	124

Educational Profile

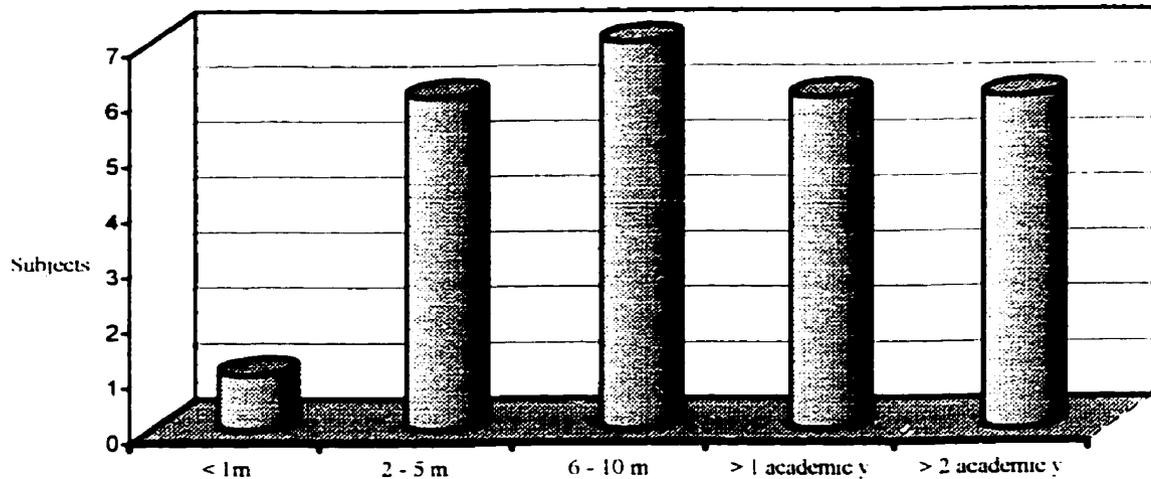
Inpatient School Program

The majority of subjects ($n = 26$) attended the inpatient school. The time in hospital, and hence the time spent in the academic program, varied for each student as did their mental status, previous academic ability, and willingness to participate. The mean duration of attendance at the inpatient school program was 11.5 months, more than one academic year. There was a tremendous range in total attendance – from as short as a few weeks up to 25 months in total (see Figure 2). The group of students in this sample who attended the inpatient school had, on average, a greater number of lifetime admission days than those students who did not attend the inpatient school program (582 days, $SD = 367$ vs. 118 days, $SD = 80$).

Although many students encountered difficulty with attendance, participation, or the school work, case notes strongly indicted that these difficulties were often precipitated by mental status or symptoms of the illness such as fatigue, low motivation, anxiety, or irritability. These factors diminished with continued assistance from the inpatient teachers and response to treatment. Students typically went to the school program for half days. Students attended school in the morning or afternoon while the other portion of the day was structured with treatment programming, usually a combination of group and individual therapy, family therapy, occupational therapy, or recreational/social activities. A few students receiving day treatment had a less formal relationship with the inpatient school. For example, individual students were tutored on specific subject areas by an inpatient teacher while attending school part-time in their community. The inpatient school program was characterized by flexibility of the staff as

individuals and the program's ability to meet the academic needs of such a wide ranging group of youth.

Figure 2. Duration of attendance at the inpatient school



Cognitive and Academic Assessments

Upon admission to the adolescent unit students are assessed along a wide range of domains beyond psychiatry. Psychological assessments are routinely performed including a cognitive profile, typically using a current version of the Wechsler Intelligence Scales for children or adults. Furthermore, academic and occupational/functional assessments are performed on an as-needed basis and occur after a collaborative team decision when the results of such assessments may assist in treatment planning or help in answering some questions about level of impairment or improvement. Three out of four subjects received academic assessments and approximately half of the subjects received occupational therapy assessments. A disparity existed, however, between those students who attended the inpatient school and those who did not (Table 5). Students who

attended the inpatient school program were more likely to receive assessments than non-attendees. Furthermore, non-attendees differed from the total sample hospitalization profile as well. Non-attendees spent on average less lifetime days in the hospital (118 vs. 484 days), had less than half the lifetime admission (1.4 vs. 3.6 admissions), and consequently experienced shorter average admissions (83 vs. 133 days). Non-attendees were also less likely to use alcohol or substances (14% vs. 36%).

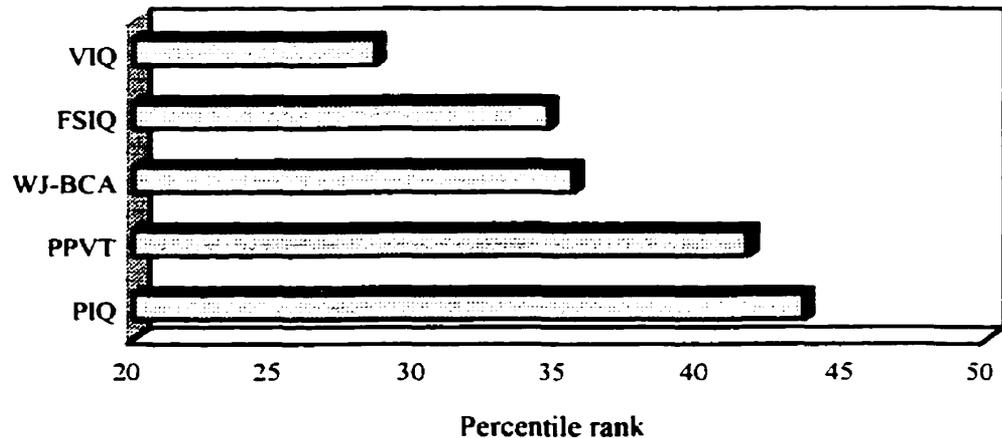
Table 5. Proportion and distribution of subjects who received assessments

	Educational	Occupational
Total sample	75.7%	51.5%
Attendees	84.6%	57.7%
Non-attendees	42.9%	28.6%

In addition to Wechsler scales, subjects receiving academic assessments were most often given the Peabody Picture Vocabulary Test (PPVT-R, Dunn & Dunn, 1981) and the Woodcock-Johnson Psychoeducational Battery (Woodcock, 1977). Student performance on each of these tests varied widely within the group itself and individually. How far along a student was in recovery and treatment was also an influential factor since altered mental status, in particular mania and psychosis, greatly influenced the representative nature of achievement and potential. The case files largely reported testing results in the form of percentile ranks. As a group, the subjects generally performed strongest on the PPVT, a measure of receptive language ability, and the Performance scale (PIQ) of the Wechsler (Fig. 3). These two cognitive measures were found to be at

the 41st (SD = 30.7) and 43rd (SD = 34.2) percentile ranks. The Full Scale IQ (FSIQ) and the Woodcock-Johnson Broad Cognitive Ability (BCA) are factors which both claim to be a general measure of intellect. They were at the 34th (SD = 27.1) and 35th (SD = 26.9) percentile ranks, respectively. The VIQ scale of the Wechsler was not a strong cluster for the group as the mean score was at the 28th (SD = 25.4) percentile. It should be noted however that non-clinical populations tend to have somewhat stronger PIQ scores in comparison to the VIQ.

Figure 3. Group means of cognitive tests



Since assessment tools such as the Wechsler scales have been well-normed and rigorously scrutinized, comparisons with distinct groups of people can produce meaningful results. The distribution of group scores on the VIQ scale, PIQ scale, and FSIQ scale were compared to the normal curve of expected scores in each standard deviation group (Table 6). FSIQ scores were available for 18 subjects and the VIQ/PIQ scores were available for 15 subjects. The proportion of the population expected in each standard deviation group was compared to the actual proportion of the BP subjects falling

into each category. The direction of any discrepancy from the expected (normal) distribution is illustrated by a directional arrow (\downarrow =lower/ \uparrow =higher). The proportional distribution of the Verbal and Performance scores around the mean (between one standard deviation above and one standard deviation below) approached normality although slightly below that expected. The proportion of the sample that scored in the lowest standard deviation group was higher than expected for the FSIQ, Performance scale, and particularly on the Verbal scale. While the normal distribution of scores in the lowest standard deviation group should be approximately 15 to 16 percent of the sample, the actual score distributions in this lowest group was the result for approximately 46% of the BP subjects. This overrepresentation may reflect impaired mental status that is especially apparent in assessments using the Verbal subtests of the Wechsler IQ tests. Conversely, the proportion of the sample expected to score in the highest standard deviation group was far below average on the Verbal scale, and somewhat below expectation on the FSIQ. The highest standard deviation, however, was slightly over-represented by the Performance scale scores of the BP subjects.

Table 6. Verbal, Performance, and Full Scale scores distribution in comparison to the normal curve (VIQ/PIQ n = 15, FSIQ n = 18)

Normal Curve Distribution	Percent of sample and direction of discrepancy					
	Verbal (%)		Performance (%)		Full Scale (%)	
+ 1 SD or higher (15.87%)	0	\downarrow	20.00	\uparrow	5.56	\downarrow
Mean to +1 SD (34.13%)	26.67	\downarrow	26.67	\downarrow	27.78	\downarrow
-1 SD to Mean (34.13%)	26.67	\downarrow	26.67	\downarrow	44.44	\uparrow
-1 SD or lower (15.87%)	46.67	\uparrow	26.67	\uparrow	22.22	\uparrow

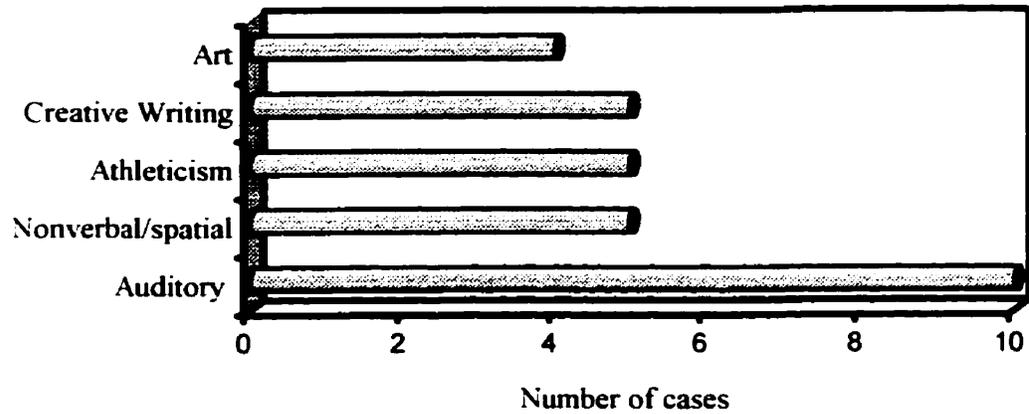
Trends in cognitive abilities and academic aptitudes became evident through psychological reports, cognitive assessment results, and qualitative analysis of school work evaluations at the inpatient school. Each aptitude or ability described was ranked according to the number of case files that listed each as being a relative strength, or an area in need of further support or development. The results are illustrated in Figure 4 (A and B). Auditory concentration, processing, and memory was the general aptitude described in the most number of case files as being a relative strength for the subjects (n=10). This factor significantly outweighed, in number of case files mentioned, other areas assessed as strengths including non-verbal spatial concept formation and visual-spatial reasoning, athleticism, creative writing including poetry, and artistic expression including drawing. Memory (long- and short-term) and mathematics were listed as areas in most need of support. Although difficulty with mathematics was a concern described in several student histories prior to hospitalization at the adolescent unit, memory impairment appeared to be a trait temporally associated with the onset of BPD. Other aptitudes listed as being in need of support were abstract and verbal concept formation, logical sequence recognition – especially applications around planning and making choices, general processing speed, visual processing, and social judgment and skills.

All subjects but one who attended the inpatient school had recorded in their respective files qualitative statements from inpatient teachers about learning style, work habits, classroom behavior, and peer relations. Files were categorized as containing primarily positive statements or primarily concerned statements. Although these students all battled the symptoms of BPD while attending the inpatient school, 15 subjects' files

contained primarily positive statements while 10 files contained primarily concerned statements. Specific examples of the statements are listed in Table 7.

Figure 4. Cognitive abilities and academic aptitudes listed in subject case files

A. Areas of relative strength



B. Areas in need of support

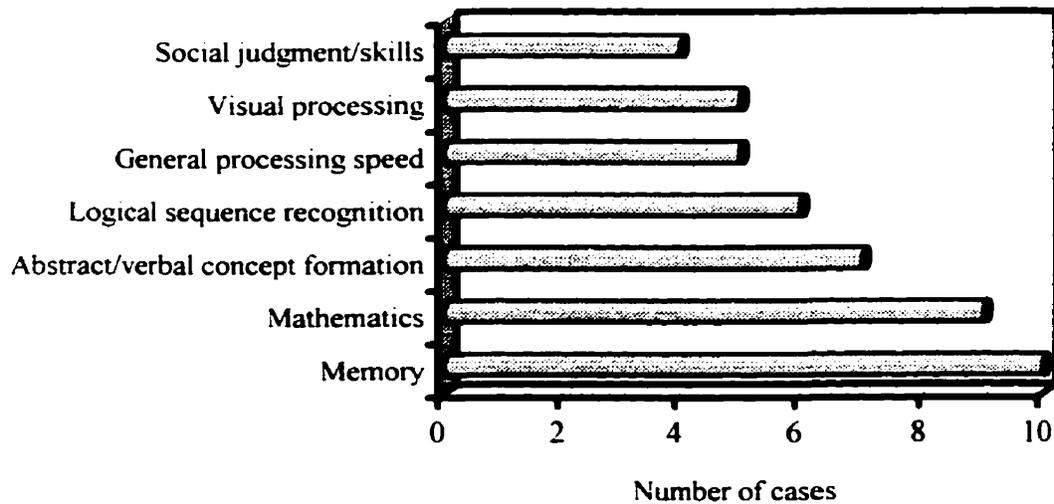


Table 7. Inpatient teacher qualitative performance statements (n = 25)

Primarily positive comments (n = 15)	Primarily concerned comments (n = 10)
Supportive to peers	Lacks peer relations
Good ability and effort	Careless
Cooperative	Perfectionist
Improved over time	Mental status interfering
Hardworking	Attendance
On task	Refused to participate
Creative	Concrete learning style

The Transition Planning Process

Chart Data

Although 27 subjects attended the inpatient school, information (primarily documentation) was provided by home schools upon admission to the adolescent unit for 31 students. Since the goal from the initial admission of anyone into a residential treatment center is improvement in health and a smooth transition back home, so too is the goal of an inpatient school program. The transition planning process, also known as ‘bridging’, begins shortly after admission to the unit. Bridging is defined as any activities such as meetings, document exchange, telephone calls, or correspondence, intended to facilitate transition from a hospital to a receiving school. Bridging is not exclusively tied to students who attend the inpatient school. Three students who did not attend the inpatient school received bridging assistance from inpatient staff, while two students who did attend the inpatient school refused bridging assistance. In total, 27 students (82%) received bridging assistance. According to the chart data, the bridging process was initiated by the inpatient staff, typically the bridging teacher or the academic advisor, and

a unit social worker. Together, these two inpatient staff members are the contacts for the family and receiving school while the students is in the unit and after transitioning back to community has occurred. The bridging process was facilitated by a semi-formal process of telephone calls, document exchange, and meetings between interested parties.

The process was labeled semi-formal for three reasons. First, there were documented communications of telephone calls between inpatient staff and the liaison, records of document exchange including student histories, current work samples, and assessment results, and minutes from meetings which took place at both the receiving school and the adolescent unit. Second, the bridging process evolved over the decade examined in this study from an informal process arranged by two or more individuals with little documentation to a step-by-step practice reflected in policies of contact and established institutional-community relationships. The transition planning process, like many aspects of psychiatric treatment, evolved and strengthened over time. It was much easier to comprehensively evaluate the transition planning process in the latter cases in comparison to earlier cases. If this is true for a study of this nature, it is likely so for a program evaluator seeking evidence of program practices and accountability. Finally, management styles of various administrators at the inpatient school will affect policy and practice as will the trends in education on a community and province-wide basis. The number of cases reflecting different bridging activities is outlined in Table 8.

A major part of the bridging process was sharing relevant academic and cognitive assessment results or impression to receiving school staff wanting to design appropriate and fact-based programming and interventions for the student. The majority of school attendees (19/26, 74%) had an IEP developed by inpatient staff based upon performance

Table 8. Breakdown of bridging activities by cases

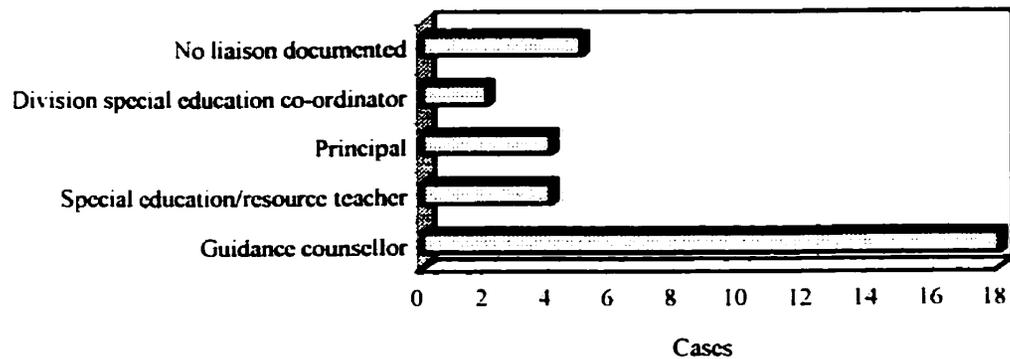
Activity	Number of cases
Telephone data exchange and support	29
Document exchange (fax/mail)	26
Meetings with receiving school staff	21
2 or more meetings	10

at the inpatient school, cognitive, academic, and occupational assessment results, and psychiatric prognosis. The wishes of each student, particularly perceptions of what he or she felt capable of taking on academically, strongly influenced this process. The inpatient IEP included the traditional components of an IEP document: Academic history, strengths and weaknesses, cognitive and academic assessment data, interdisciplinary feedback (from psychology, speech and language, reading assessments), behavior, work habits, peer relations, preferred learning styles, and learning disabilities, if any.

Arrangements were made by the inpatient staff for some students, particularly those who were inpatients for a considerable period of time, who were not welcomed back or did not want to return to their previous (home) school, to attend a new school upon discharge from the adolescent unit. Only 36% of the sample returned to their home school upon discharge, the majority (n =21) went to a new receiving school. The bridging teacher and social worker usually worked with one primary receiving school liaison. The majority of cases with a receiving school liaison listed the school guidance counsellor (n = 18) as the person who prepared the staff and programming in receipt of the student after discharge from the adolescent unit (Figure 5). In some cases, this liaison was in contact with the student and his or her family prior to discharge, and in a few instances, visited students on the unit. There was some disparity between students who returned to the school they

were attending prior to hospitalization (home school) and those who were discharged to new receiving schools. Students returning to their home school were less likely (45%) to have an inpatient IEP than students going to new receiving schools (72%). Data was missing from four subjects.

Figure 5. Receiving school liaison by number of cases



Inpatient Staff Interviews

Three inpatient staff members were interviewed for their perceptions and experiences with the transition planning process. The staff were from the educational and psychiatric programs at the adolescent unit, and all three participants had extensive experience in their respective fields. Five main themes emerged from the inpatient staff interviews: (1) inpatient staff relationships with students; (2) academic assessment and IEP development; (3) communication and planning experiences; (4) exchange of knowledge; and (5) student/family involvement.

1. Inpatient staff relationship with students. This relationship usually began when the student was on the assessment unit. The student, when well enough to attend the inpatient school, was assigned a teacher-advisor. This teacher-advisor was that student's 'manager' and advocate for the bridging process. An inpatient teacher contacted the home school after permission was granted from the student and parent/guardian. In addition to obtaining school records and a student history, another goal of this contact was initiation of the professional relationship between the two teams. Gathering impressions from previous teachers was considered a valuable exercise by the inpatient staff because it allowed factual information in documents to be supplemented with the experiences of other educators with the students:

"Teachers are a good source of those impressions that you can't get from reports".

2. Academic assessment and IEP development. Admission to the adolescent unit not only facilitated assessment and treatment of psychiatric illness, but also the discovery of significant academic difficulties. Difficulties experienced by bright or quiet students at their home schools were often identified. Attending the inpatient school would occasionally hasten assessment for which a student may have been referred within his or her division. When inpatient IEP's were developed and delivered with the student to the receiving school, the vast majority of receiving school liaisons were receptive to guidance and recommendations. Specific plans that were not adopted 'as is' were hindered by funding difficulties, or gaps in existing programming at the receiving school. Reluctance to implement the document did not appear to be an issue – if the school agreed to enroll the student, the staff were open to a supportive placement experience. Inpatient staff regularly invited receiving school staff to IEP reviews and case reviews.

On occasion, students had course work sent to the adolescent unit from their home school to help maintain some connection with their class activities and thus make it easier to reintegrate back to the class. Post-transition support was provided primarily by the inpatient social worker to the receiving school liaison. This support would occur, when necessary, for as long as one year.

3. Communication and planning experiences. A great deal of time was spent by inpatient staff on finding a school and a program that was a good fit for the student and his or her needs. Larger schools, even those with supportive staff and good programs, were often difficult for new BP students. Student complaints to staff included levels of noise at the school that were difficult to tolerate, and the impersonal, sometimes intimidating nature of large schools. Inpatient staff addressed this concern by taking the student on a tour of the new school and to meet individually with the guidance counsellor and primary teachers. The participants indicated that having a primary support person (usually the counsellor) at the receiving school also assisted students with feelings of disconnection. All inpatient staff recommended that contact be made or maintained between the student and receiving school liaison while he or she was still on the unit. This timely communication allowed a conscious link between the school and the adolescent unit via the liaison. Furthermore, if a student was returning to the home school, the ongoing contact with the receiving school staff served to encourage the perception of the student as still belonging to their school:

“A lot of times if it is a problem child, like a manic kid that acts out, the schools are sometimes very relieved to have him move on. I think the work is in staying in touch with the student’s home school so that when it comes time for that child to leave the hospital, the school realizes that it is their child still. They are just lending him to us for a while”.

4. Exchange of knowledge. The inpatient staff felt it was important that receiving school staff were made aware of issues of academic and social regression that often occur in BP students. This was especially important for students returning to their home school where staff expected the student to be an outgoing, academically-focused participant, if that was the student they new pre-morbidly. Conversely, if a student had previously behaved in a bizarre or erratic manner while manic, staff must be assured that this behavior was symptomatic of acute illness and that with treatment, the student would be stable and able to engage appropriately.

One issue that inpatient staff felt significantly impacted the successful transition of these BP students, and by extension to other students with serious psychiatric illnesses such as schizophrenia, is the general lack of knowledge, myths, and stigma surrounding these illnesses among professional educators. One participant described these illnesses as ‘invisible disabilities’ where the impairment does not require a wheelchair or other familiar, visible cues:

“Mental illness is such an invisible disability. If these kids came back to their school with a leg amputated, the school could understand that and they would reach out. But these kids came back and they look the same. He is out of the hospital, so he must be o.k. now”.

Participants felt that visible disabilities were more likely to elicit ‘sympathetic’ responses from peers and staff who might extend more understanding or assistance to the student. The invisibility of chronically impairing psychiatric disabilities, according to the participant, makes it easier to assign volitional blame for symptoms stemming from the illness upon recovering students.

The receiving school staff often stated to inpatient staff over the years that they never learned in their educational training (including those in special education/resource)

what to expect from, or how to program for, students with serious psychiatric illnesses.

Two participants felt that media sensationalization of isolated incidents served to inflame fears of violent and bizarre behavior from people seen as ‘unbalanced’ or ‘crazy’.

Coupled with the more recent focus on increased school violence, societal myths and stigma may make the BP student an undesirable addition to a school environment.

5. Student/family involvement. Difficult bridging experiences typically involved lack of cooperation by the student and/or the student’s family rather than by the receiving school staff or school division:

“I have never had a school that refused to give us information. I have had lots of parents who didn’t want us to talk to schools. If no consent is given, if they are guarded, you have to respect that”.

Lack of cooperation occurred for three primary reasons. First, the family and/or student, fraught with bad memories at previous schools, wanted to have a fresh start at a new school where no one was aware of either difficulties with psychiatric illness or embarrassing incidents that may have arisen during manic episodes. This ‘fresh start’ inevitably meant that no liaison was designated at the receiving school and thus the student had no identified school supports. Teachers were, therefore, unaware of the possibility of relapse and thus the students may have exhibited symptoms that school staff did not cue in to. Furthermore, the student may have struggled academically and teachers, unaware of the mitigating circumstances, attributed performance to poor motivation or lack of skills. The second scenario involved family shame around the stigma of psychiatric illness. Because BPD is a highly heritable illness, and families are informed so by inpatient staff as part of their psychoeducation, families and students would refuse to acknowledge the seriousness of the illness or were uncomfortable with

staff and school peers knowing of the diagnosis. Since the experience of persons with psychiatric illnesses in society has often been cruel and discouraging, these fears and discomforts experienced by families were legitimately based in the mire of societal history. Finally, in a few unfortunate cases, parents making decisions on behalf of their children were actually dealing with their own active or untreated illnesses. In these instances, poorly thought out decisions were made, treatment was sabotaged, and plans at the receiving school end were consistently interfered with. In cases such as these, inpatient staff were unable to facilitate an optimum transition plan.

Receiving School Staff Interview

Four main themes emerged from interviews with staff from receiving schools: (1) support from experts; (2) inclusiveness of transition planning; (3) academic and supportive relationships between receiving school staff and bipolar students; and (4) roles of schools and community programs in assisting mentally ill students.

1. Support from experts. All participants stated that support pre-and post-discharge by the inpatient staff was the most important factor influencing their ability to assist students in the transition to community school. When inpatient staff and receiving school staff together developed management strategies and programming ideas, it created in the minds of receiving school staff the perception of a student 'team'. This perception significantly reduced any potential feelings of anxiety because they were aware that a sick student was not going to be 'dumped' on the school with no supports:

"Sometimes, we just did not know what to do..."

Inpatient staff were viewed by participants as 'experts' on the students regardless of how long the students were inpatients. Inpatient academic assessments and the resulting recommendations were viewed as very helpful, particularly with developing appropriate expectations for a student. Participants stated that when a student at their school was admitted to the adolescent unit, it was typical to wait for the inpatient staff to make initial contact. Participants expected (or hoped) at some point during the student's inpatient assessment to receive information about diagnosis and/or prognosis.

Along with this support from 'experts', parental involvement in the pre- and post-discharge phases was considered crucial to the long-term adjustment of the student in community schooling since receiving school staff also saw parents as 'experts' and a valuable resource for school staff. In instances where a student with a history of psychiatric admission was enrolled to a school with no supportive documentation, confidentiality concerns by the parents/student was the major factor restricting the school's supportive programming.

2. Inclusiveness of transition planning. While the current study examined experiences with receiving students from the adolescent unit, three participants also had experience with receiving students from other psychiatric inpatient programs. These were exclusively short-term or assessment admissions. Schools that received students back (home schools) also tended to be part of the initial referral process. Those students whose admissions were not lengthy often had work sent to the adolescent unit (or other hospitals in other cases) and completed it with the assistance of inpatient staff. This was one alternative to attending the inpatient school. When students were returning to a home school or when a new student was scheduled for registration upon hospital discharge, all

participants stated that they or another school designate were invited to attend at least one discharge planning meeting at the adolescent unit/hospitals. School follow-up of these discharge meetings typically involved division clinicians and school support staff. Information from the inpatient meeting was disseminated and staff discussed placement details. Participants stated that they did not receive inpatient IEP's with every new or returning student from the adolescent unit.

Uncertainty of a student's return was seen as a hindrance to maintaining interest in his or her progress and transition planning. In two instances students showed up at school, with no prior notification, after discharge:

"It was like we had to do all the work to get this kid enrolled and placed where she would cope best. It should not have happened".

The estimated discharge date and periodic progress reports during the admission (orally or in writing) were considered by participants to be helpful in maintaining connection with, and interest in, the students. Although the collaborative experiences of the participants and inpatient staff has been positive, there were some concerns that the classroom teacher often appeared to be left out of the planning process and tended to receive information second- and third-hand via the receiving school liaison or an administrator. Since the participants felt that classroom teachers were able to be positive influences upon the recovering students (and that returning students had a significant impact upon teachers), that they should have more opportunity to question inpatient staff and benefit from their expertise directly:

"Classroom teachers are the ones who deal with kids most often on a daily basis. They can't be left out of this whole process. It is not fair to the kids or them".

Participants felt that ideally, students who go into the hospital should continue the same academic program they had at the home school but at whatever pace they were able to handle. It was felt that this would assist a more smooth academic transition. One participant related an experience with a ‘medically’ ill student who had been away from school and in the hospital for some time. Because of the previous two transition planning experiences with students discharged from the adolescent unit, the principles of good planning utilized with ‘psychiatrically’ ill students facilitated transition of any student from hospital to a receiving school. Two participants felt that transition planning meetings for students discharged from extensive hospitalizations should be provincial policy.

3. Academic and supportive relationships between receiving school staff and bipolar students. Participants described the helpfulness of receiving information on medication side effects as it related to school functioning, and the realistic expectation for each student’s recovery and prognosis. Ultimately, this information assisted ongoing evaluation and modification of IEP’s. Participants also stated that they, and receiving school staff in general, were concerned about the social-emotional functioning of the students:

“I did not know how he was ever going to make it on his own once he left school. I tried to look out for him when he was here, but I never knew if he would attend from one week to the next, or if he would come to school one day and try to hurt himself”.

In particular, staff were often concerned with the ability of their recovering students to cope with the stress of senior years academics and peer relations. Students reported to the participants concerns about feeling and appearing different from peers due to their illness and to their hospitalization experience(s). There were many instances

where students were comfortable with staff knowing their psychiatric difficulties but not their peers.

Two participants stated that their respective school psychologists were too busy with overextended case loads to be a part of regular student follow-up after the transition. This was seen as a weakness in the post-transition phase and a weak link in the school's supportive potential. There was a consistent regard by the participants for recovering students beyond the implications for academics to their fundamental well-being as young people. All participants expressed concern for academic, social, and occupational success for the BP students with whom they came into contact. Participants were somewhat divided about how to approach students with BPD and other psychiatric disabilities returning from hospitalization - treat them like all other students or make a point of seeking them out and doing continuous check-ins. There was, underlying this sentiment, a desire to 'do no harm' to the student and to be as facilitative as possible. Three participants stated that one specific way they were able to assist their students was by going over crisis/relapse plans with students and inpatient staff, and having well-defined roles in those plans. When the students and receiving school staff knew what to do, the anxiety levels diminished according to participants. Students who were struggling with ongoing mental status problems and breakthrough symptoms were difficult to assist academically because their programs seemed to be put on hold for short periods of time until the students felt better. Participants all recognized that there were times when academic objectives such as teaching a certain number of concepts to students had to take second place for a short period and that it was more important in the long term to keep students attending school and feeling welcome without being overwhelmed. Although the

general experience of the participants was to observe some long term resiliency in psychiatrically ill students, there was some surprise and concern about the students who were previously know to staff and returned after discharge functioning well below previous levels.

4. Roles of schools and community programs in assisting mentally ill students.

Short-term admissions at other hospitals were viewed by participants as 'quick-fixes' that received little or no follow-up with regard to outpatient treatment for the student and information or recommendations to the school. As a consequence, admissions to facilities other than the adolescent unit had the potential to stimulate feelings of reluctance among receiving school staff to have a student return to the school under these circumstances. Two participants felt that a significant gap in the transition planning process from hospital to receiving schools involved those students who were about to become of legal age and thus be transferred from pediatric to adult services. Those students who entered the adolescent unit as pediatric patients and discharged as adults were seen by the participants as receiving less school support from adult community mental health services:

"We never heard from anyone responsible for the health care of this student the entire year he was at school. If he had gotten really sick again, who were we supposed to contact"?

Furthermore, although these students were legally adults, they were often seen by school staff as incapable of making appropriate decisions regarding their educational/occupational options and of taking care of their physical and emotional health.

When asked if university-based courses within faculties of education that specifically addressed the needs and challenges of psychiatrically ill students would be

helpful, all four participants strongly agreed. One participant stated in follow up to this question that inservices about mental illness may be less well received by older teachers or those closer to retirement because of the significant paradigm shift from the philosophy and approach of traditional training of classroom teachers. Day hospital was viewed as a helpful solution to students who required very gradual transition, and that more funding should be put into day treatment programs. Funding issues were a point of discussion in all interviews. One participant suggested that sharing of resources between disciplines at both ends of the transition process would ensure that larger monies were not underutilized at the inpatient end and lack of funding was hindering transition at the community end. For example, funding could cross departmental lines between inpatient bed funding, inpatient education programs, psychiatry, psychology, special education, and community treatment because funding would be designated to a student rather than to a student *within* an educational/hospital/ community program. Since the monies would then 'follow' the student, more flexibility would result in planning for the needs specific to each student.

A final thought expressed by two participants regarded de-institutionalization and community care. Although the interview questions related to hospitalized adolescents, there was concern about the needs of students with psychiatric illnesses not acute enough to require inpatient care but who require ongoing community based support. These participants believed that the trend of de-institutionalization had not been met with adequate numbers of publicly funded mental health treatment programs. The experience of these two participants with the existing community treatment programs has been that they provided high caliber service. The need so overwhelms the existing programs,

however, that the true objectives of community-based care have been more successful on paper than in real life experiences of school staff who observe daily the negative consequences of this lack of materialization.

DISCUSSION

The data has illustrated a number of findings relevant to the short- and long-term successful transition of students from hospital to community school settings. These findings fall under the general themes of 1) medical, developmental, and treatment issues; 2) defining the needs of students with psychiatric disabilities within education; and 3) transition roles, communication and planning issues.

Medical, Developmental, and Treatment Issues

Since more than half the sample exhibited medical or developmental-milestone concerns, it brings to question the heterogeneous nature of BPD in terms of onset age, pattern and course, and neurological antecedents. Hoff and colleagues (1988) divided their sample of BP subjects into two groups – those who exhibited antecedent neurologic factors (such as birth trauma and seizures), and those subjects with no prior neurological concerns. They found that subjects who had neurological antecedents were three times more likely to relapse, and had significantly lower FSIQ scores, than those subjects without neurological concerns. Only three subjects from the adolescent unit had neurologic antecedents confirmed. Hellgren, Gillberg, and Enerskog (1986) found twice the rate of delayed walking after 14 months of age (50%) in their mixed sample of youth with BPD and schizo-spectrum disorders than was found in the current study (24%). This disparity is likely attributed to the increased presence of delayed milestones in youth who develop schizophrenia. They also found that 27.5% of their sample had neuromuscular-orthopedic abnormalities. The current study found an 18% rate of fine- and gross-motor

disturbances among the sample. Sigursson's (1999) sample with early onset BPD revealed that those with neurodevelopmental delays were those subjects with any history of psychosis. The rate of psychosis in his sample (84%) was very similar to the rate found in the current study (82%). It may be inferred that severity of an illness as defined by the presence of psychotic symptoms is associated with an increased rate of neurodevelopmental delays or abnormalities.

There was noticeable presence of lifetime asthma in this study (21%), and those experiencing this serious breathing difficulty also tended to have comorbid multiple severe allergies and bronchitis, as well as general aches and pains. This brings to mind several important questions. Does a higher lifetime prevalence of asthma in this group of BP adolescents indicate a general constitutional vulnerability to medical disease? Does asthma and BPD have similar underlying physiological pathways, (for example, hypercortisolism)? A comprehensive review article recently published by Grant, Wagner and Weiss (1999) discussed the worldwide trends in asthma incidence and prevalence. In general, the authors describe that these rates are on the rise, and especially among youth. The one year prevalence of asthma in the U.S. among youth ages 5 to 14 years is between 6% and 7% of the population. They report Canadian rates as very similar. The relationship between serious asthma and general psychiatric morbidity has been investigated (Vila et. al, 1999), however Wamboldt and colleagues (1996) found a significant relationship between mood disorders in families and asthmatic adolescents:

... rates of depression and mania in male relatives, primarily biological fathers, were also high... the data suggest a link between severe asthma and *biological family history* of affective disorders, with children having genetic risks for both affective disorders and asthma perhaps comprising a distinct subtype of asthmatic at risk for developing more severe asthma (p. 1047).

Nasr and Atkins (1977) reported over two decades ago two case studies where asthma significantly improved in a man and a woman being treated for BPD with lithium. The authors posed the question of common pathways in lithium and asthma medications and underlying physiological mechanisms including the roles of prostaglandins, cyclic nucleotides, and epinephrine. Whatever link may or may not exist, the reality for the subjects in this study experiencing asthma and BPD is that there are more medications to manage, additional days away from school or reduced activity participation due to asthma flare-up, and an increasing sense of assault upon the body from multiple etiologies.

The extremely high rate of positive psychiatric family history both confirms the heritable nature of this illness and creates the unfortunate climate in a family where an illness persona is taken on, an ill parent may be unable to care for the ill child, or unhelpful coping mechanisms (such as alcohol abuse or violence) are modeled. Although several students came from intact families, many had severely dysfunctional patterns that would be devastating to a developing child not struck with a major psychiatric illness. Where students did not have an ill parent, inevitably an ill grandparent, aunt/uncle, or sibling was present. It may be that in these situations, successful adaptation to school and eventual occupational success may also be compromised by family dynamics and chaotic environments as much as from the interference of symptoms.

The heterogeneous presentation of prodromal emotional disturbance makes it very difficult to predict who will become BP. Although severe early onset ADHD and depression are clinical red flags for risk of BPD, until a manic or hypomanic episode emerges, treatment with mood stabilizers and/or neuroleptics will not usually begin. Many of these students presented as youth with other concerns such as behavior

problems, alcohol/substance use, anxiety, or academic failure. In most cases, these students were either assessed or treated for these prodromal concerns. Those presenting with depression and anxiety were not improving with psychological treatment, and school difficulties persisted even with intervention from guidance and resource. A smaller number of subjects had excellent premorbid functioning nearly up to the time of illness onset and first hospitalization. Those subjects with high mean lifetime admission days spent considerable time away from their homes, peers, and schools. There must be some question as to the impact of this separation upon normal adolescent development, specifically with recreational and relationship needs. The subjects with childhood onset emotional disturbance comprised the bulk of this high lifetime admission group, and thus it appears that the current data is supportive of recently published longitudinal outcomes: the earlier the onset, the more virulent form of BPD and the longer time spent actively ill. Furthermore, the impact of cyclical psychiatric illness upon the evolving self-concept must be of concern for this group. The impact might include feelings of helplessness over the waxing and waning course, the tendency of people in these student's lives to forever view them within an 'illness' identity, and the impact of being labeled a 'mental patient' even during periods of remission. These factors are capable of negatively impacting anyone recovering from acute BPD, even those students with good premorbid self-esteem and adequate psychoeducation for their disorder.

Although all subjects received consistent information about the nature and treatment of BPD from unit nurses, physicians, and primary therapists, the significant occurrence of medication non-adherence and leaving the adolescent unit AMA brings to the fore the most fundamental problems underlying medicine – why do patients

knowingly and deliberately do things to make themselves relapse? In this study, poor treatment adherence was associated with 1) not accepting the diagnosis or lack of appreciation for the serious and chronic nature of the illness; 2) unsupportive messages from parents or peers about the illness and/or its treatment; 3) poor lifestyle choices such as using alcohol, substances, neglecting appropriate sleep habits, engaging in a 'partying' lifestyle; 4) lack of follow-up support in community; 5) less illness education; and 6) under-reporting of medication side effects to the treating physician. It should be noted however that all branches of medicine, not just psychiatry, struggle with the issues of patient adherence to treatment regimes. When the illness being treated, however, is fraught with fear and shame, and inherent pessimism that is part of the depressive phase of BPD, there is added concern for adherence. Much of the illness 'denial' sits squarely on the shoulders of stigma, and with the notion in society (still) that people with mental illnesses are spiritually and emotionally weak, violent, and useless.

When students are non-adherent to treatment, or, they are not yet diagnosed, substance abuse is one way that they cope with the emotional pain. Since it is not possible (according to DSM) to diagnose BPD while someone is regularly using alcohol or drugs, it is sometimes the case that BPD will be masked for years by the abuse and cumulative deficits from untreated BPD are compounded by the effects of alcohol and drugs.

Defining The Needs Of Students With Psychiatric Disabilities Within Education

The average student in this study spent more than one academic year attending the inpatient school. This is a low student-teacher ratio, structured, controlled, safe, and

supportive environment for students with serious psychiatric illnesses. Upon discharge, even those students who disliked being in the hospital were leaving the most secure and responsive educational environment they could have. In this study, inpatient school attendees spent approximately 215 more lifetime days in hospital than those subjects who did not attend the inpatient school, meaning that these particular students were likely more ill and/or experiencing more difficulty maintaining stability in the community. Even with marked improvement, it is important to question whether community schools in general are capable of meeting the needs of students with severe BPD. The flexibility of the inpatient school program, such as partial community school attendance supplemented with tutoring, illustrated one of the most important factors contributing to the success of the program. High schools are less flexible than middle school, elementary, or university settings in that the priority is to teach the course, rather than the students. For example, it is more likely that time extensions for exams or alternative exam procedures such as oral tests, would be utilized either in middle school grades or at the university level where accommodating disabilities of any kind is given serious priority. When excellent alternate or special education programs are available and provide flexibility, they are comprised of a large proportion of students with conduct and behavior disorders. Children with BPD, schizophrenia, and other serious psychiatric illnesses are often too vulnerable and fragile to be exposed to the belligerence of students who prey on others. Yet, there does not seem at this time a reasonable alternative.

In general, knowledge of relatively rare psychiatric disorders is uncommon among classroom and even some special education teachers. As a result, there is a fundamental lack of understanding of the difference between students who have behavior

problems (requiring a good behavior management plan and perhaps counselling), and students who are ill with neurologically impairing psychiatric disorders. Such an understanding would foster appropriate expectations and management techniques, greater empathy and tolerance, and less frustration on the part of the teacher with the student (Manitoba Education and Training, 1998). For example, a hypomanic student might receive consistent reprimands to be quiet when he or she is experiencing unrelenting talkativeness and pressure of speech because they are becoming ill again. These symptoms do not respond to reprimands, nor is the student deliberately being defiant or doing things to personally irritate the teacher. These are misunderstandings that frequently occur, however, with BP students.

The cognitive assessment data, although available from only a portion of the sample, illustrated the acute and residual effects of BPD upon thought processes and academic functioning. Although among normal populations the PPVT correlates higher with the VIQ than the PIQ scale and its standard scores are found to be lower than the FSIQ (Sattler, 1992), these relationships were reversed with this sample. There was a difference of 13 percentile points between the lower VIQ and the PPVT, which more closely resembled scores on the PIQ scale. The mean PPVT score was also higher among the group than were the scores on the FSIQ, with a difference of 7 percentile points. The generally poor results of the VIQ scale for the sample altered the expected relationships between the Wechsler scales and other cognitive assessment tools. The finding in this study of compromised Verbal intelligence supports finding from some samples, while it contradicts others. Sigurdsson (1999) found a significant difference between FSIQ between unipolar and BP youth, with BP youths scoring on average 17 point below the

unipolar youths. In his sample however, the BP youth performed better on the VIQ scale than on the PIQ by approximately 8 points. The explanation does not lie within the severity of illness within his sample – as mentioned previously, the rate of psychosis was virtually identical to that found in the current study. What may differ is the point in recovery that the tests were administered between the two samples.

Persistent cognitive impairment is of concern for this group, and there is reason to be concerned given the results of the group's VIQ scores. While Bulbena and Berrios (1993) found that cognitive impairments with respect to memory, attention, and visuospatial function were reversible with recovery, other data strongly contradicts their findings (van Gorp, 1998). For example, Ferrier and colleagues (1999) found persistent cognitive impairment in euthymic adult patients primarily with executive functioning measures, especially working memory. This finding was particularly strong in patients with poor outcomes. The authors state that impairment in working memory infers pathology of the frontal lobes, which may explain the concentration of this deficit in subjects with poor outcomes:

Frontal lobe damage is known to lead to severe difficulties in coping with everyday life, particularly in terms of goal-setting, self-regulation and decision-making. It is likely that even minor cognitive deficits may result in substantial social and occupational difficulties (p. 250).

Other recent data also support significant cognitive impairment among subjects with BPD on measures of verbal memory and learning, and visual reasoning. The sample studied by Atre-Vaidya (1998) displayed a measurable deterioration from previous cognitive ability, and this was especially the case for subjects who experienced hallucinations – they tended to have the most difficulty with recovering memory function. In this study,

memory impairment was predictive of more difficulties with psychosocial functioning. The authors concluded that the cumulative impairments observed in their BP group resembled those traditionally found in schizophrenic samples.

The implication from the above research on cognitive performance, supported by the current study, is that a portion of students who return to community schooling after onset of BPD deal with knowing that it may be more difficult to learn complex concepts, and that they may no longer be perceived as the students they once were, prior to becoming ill. Teachers at receiving schools must be aware of the impact of these cognitive impairments that may be present during periods when the student appears stable.

Transition Roles, Communication, and Planning Issues

The transition planning process appears to work best when several factors are occurring simultaneously. The student and his or her family must be willing to work with the inpatient staff in finding the best possible educational placement and programming, meaning that they must feel comfortable accepting the support. This also means a willingness on behalf of the student and the family to allow collaboration and information sharing between inpatient staff and receiving schools to ensure that there is a common goal everyone is working toward. The attitude of the school administrator is very important, particularly with setting the tone for the arrival of a student who may have a previous school record of discord. Face-to-face transition planning meetings are important, and team building will be more likely to occur if collaborative planning sessions are hosted at the home school and within the unit/hospital because of the

perception of ‘turf sharing’ among team members. School staff receiving students who are returning to home schools after hospitalization should have assistance developing an IEP (if required) by inpatient staff when one is not developed during admission to the unit.

A key issue brought forth in the current study is that good transition planning is not diagnosis-related. The experiences brought forth by the receiving school staff member who discussed the universality of thorough transition planning to students with non-psychiatric illnesses support this issue. The common needs of students who have chronic illnesses, in particular with waxing and waning acuity, explains the lack of emphasis on diagnosis. Chronically ill students, regardless of the type of illness, must manage frequent school absences, feelings of not fitting in or being ‘different’, feeling left behind academically and socially, and variable levels of academic impairment due to direct or indirect effects of the illness or its treatment. Stuart and Goodsitt (1996) suggest that there be a full time transition liaison not necessarily tied to a school or a hospital who arranges meetings, does some case management, and provides the link between the policies, discipline-specific jargon, and objectives of two or more different organizations (education, psychiatry, community services, social assistance, etc.). This liaison would work for the child and the family to facilitate movement between hospital and community in youth with recurring illnesses. Stuart and Goodsitt’s model is one of advocacy, management, resource gathering, and interdisciplinary cooperation in anticipating future difficulties with illness relapse and/or contingency plans. The authors suggest that this liaison would be most effective if the student and family were able to develop a trusting relationship with their liaison through constancy of service regardless of inpatient or

community status. In examining of the roles of the inpatient staff and receiving school staff who, unlike the model presented above, are connected to respective facilities, it is not possible to state that an independent transition liaison would be a more effective facilitator of this process. Having staff directly linked to the adolescent unit or the receiving school might have made it possible to access internal resources more easily than would have otherwise occurred if an independent liaison was making similar arrangements. On the other hand, an transition liaison independent of school or hospital might better address those students on the cusp of adult community services, or, in preventing the rare cases that fall through the cracks due to discomforts or concerns about confidentiality at school. Although community based programs not necessarily tied to an inpatient facility or school (such as vocational rehabilitation programs, community mental health workers, and addiction services) are available to students discharged without bridging, non-adherence with treatment and discharge AMA, for example, are barriers to referral and follow-up with these services.

It may be important to check with the student and the family about their perceptions of the services they require most during the pre- and post-discharge phases. Special needs of families experiencing, for example, poverty, substance abuse, or geographical isolation, are potential confounds to a traditional transition plan. Since the current study did not examine the long-term adjustment of discharged students back to community school, the 'goodness of fit' between perceptions of needs could not be estimated. However, Soloman and Evans (1992) examined the service needs of youth released from a state psychiatric facility and compared the perceptions of service providers and parents/caregivers. Sixty community liaisons, hospital unit directors,

community agency workers, and 54 parents/caregivers were surveyed regarding what each felt was needed to facilitate improvement of released inpatients ages 8 to 18 years. When asked if they believed whether the youth required alternative educational programming, 7% to 19% of the service providers felt that this was a need. In contrast, 59% of parents felt that their children required educational assessment/planning, and 71% felt that their child required special assistance at school. Although some disparity in perceived needs will occur between families and providers, such a gap illustrated in this study could be an area of miscommunication that may grow into service gaps and increased family stress.

Graham, Weingarden, and Murphy (1991) surveyed 13 adolescents about their experiences with school reintegration after hospital release for spinal cord injury. The authors found that level of disability was not a mitigating factor in successful transition and school adjustment. Although 10 of the 13 students were released to new schools, none felt persecuted or excluded by peers due to their disability. Some students surveyed stated that they were occasionally reluctant to ask for assistance so they may appear more independent. Alternative methods of participating in class or completing work were offered when physical barriers arose. The survey results also indicated that parental behavior had a significant impact upon the academic and social growth of the students, specifically that “overprotection is the most common barrier to physical and emotional rehabilitation”, and this included awareness of their child’s strengths, abilities, and limitations, and having encouraging but realistic expectations for them as students and persons.

These issues raised in the study of non-psychiatrically disturbed students are virtually identical to those for students leaving the adolescent unit in the current study: Peer relations, the desire for independence and wellness, wanting to fit in, wanting the confidence of parents and teachers. It may be more possible to achieve these desires when people in the environment can see the disability and fit it into a framework of reference. This may be more difficult to do with students who go through periods of instability and wellness. The reduced social skills and shaken confidence of youth who battle psychiatric illnesses make it more difficult to find a niche and find an evolving identity in later adolescence and early adulthood.

Summary

Methodological concerns, such as lack of access to cumulative education files, lack of access to longitudinal and follow-up data (both educational and psychiatric), and secondary reporting of student's experiences through interview participants, have all hindered the impact of the current study's findings. Student characteristics and statistical information were gleaned from chart records collected from multiple informants, and this may reduce the likelihood that some factors have been over-reported. Some data, such as childhood illnesses or educational histories, were absent or inaccessible and important variables associated with academic or emotional outcomes could not be posed. However, since the goal of the current study was to produce a detailed qualitative picture of who these BP students were and some of the factors that might impact their transition back to community schooling after hospitalization, there was sufficient data available to illustrate these challenges and the key players.

The students admitted to the adolescent unit who eventually bridged back to community schools did indeed have widely varied patterns of school functioning that reflected individual cognitive and affective status. Since the educational needs of these ill youth were considered during admission to the adolescent unit, receiving schools who were part of the transition planning process were better able to provide academic and emotional support.

Duration of total admissions in residential and day treatment was high, and the average student in the sample spent a combined total of more than one year in hospital at various points during childhood and adolescence. The prevalence of any lifetime psychosis in the sample was considerable (81.8%), although the finding is comparable to other data previously mentioned. Since the mean age of onset for prodromal BP symptoms was approximately commencement of puberty, the impact of the illness upon adolescent development, neurological maturation, and general health is of concern. Overall, this sample of BP youth endured psychiatric histories which suggest: 1) guarded to poor prognosis, 2) highly somatic presentation including an elevated lifetime prevalence of asthma, allergies, and delays in developmental milestones, and 3) erratic patterns of hospitalization and treatment adherence. Performance on selected cognitive measures and identified areas in need of further support such as memory, math concepts, abstract/verbal concept formation, and processing speed are issues that will impact recovering students in community schools. It is highly likely that some improvement in these measures occurred for students whose mental status improved with long term recovery and greater stability in their illness. However, the existing literature which discusses the cumulative cognitive and social impairment over time due to progression of

the illness remains an important question for further study in the long-term adjustment of the transition process from hospital to community schools, and eventually from schools to occupational roles. Implications of these psychiatric histories for academic and social growth suggest that any difficulties experienced by students returning to community schooling could have multiple etiologies.

The majority of subjects attended the inpatient school, with the mean duration more than one full academic year. Most subjects were able to return to community schooling due to collaborative planning strategies of inpatient psychiatric and educational staff, and receiving school staff. The history of the bridging program at the adolescent unit reflected an evolving process that was responsive to the needs of families and staff at the receiving schools, and the framework of planning (meetings, communication protocol, exchange of documentation, professional support to schools) became more formalized and structured during the 10 year period under examination. Positive bridging experiences as reported by inpatient and receiving school staff were those that involved face-to-face meetings, comprehensive inpatient assessments of students, periodic discussion of student progress (in school and in hospital), and willingness of the students and families to work with both systems. Flexibility of professionals, programs, and families also portended a more positive transition process.

There were two larger themes that emerged from interviews with all staff participants. The first theme was the essential component of collaboration – between the inpatient staff, the receiving school staff, the respective school division representatives, and most importantly, the students and their families. A breakdown between any of these inter-relationships diminished or impeded the transition planning process. A second

larger theme that emerged was a sense of an evolving relationship between medicine and education. These two traditionally inflexible societal institutions are seemingly, through this examination of the transition of BP students - redefining boundaries, expectations, and mutual language. Creation of multidisciplinary agencies, such as child guidance clinics, serve the community, the school, the family, and the 'total' child, and are key examples of where these two once distinct disciplines now meet. The medical and educational systems have, out of necessity, become more enmeshed due to sharing responsibilities for a patient/student, and with the increased presence of psychiatrically disabled people in the community. Although ultimately, the hope is that a stronger network of service emerges from this evolution, the growth of institutional inter-relationships and community-based care may make it more unclear who ultimately has responsibility for the quality of care for persistently mentally ill members.

References

Akiskal H (1995). Developmental pathways to bipolarity: Are juvenile-onset depressions pre-bipolar? *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 754-63

American Academy of Child and Adolescent Psychiatry (1997). Practice parameters for the assessment and treatment of children and adolescents with bipolar disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36 (10 Supplement):157S-176S.

American Psychiatric Association (1994). Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV). Washington: APA

Angst J (1999). Epidemiology of bipolar spectrum disorder in community based studies. Presented at the Third International Conference on Bipolar Disorders June 17-19, Pittsburgh, PA

Anthony J & Scott P (1960). Manic-depressive psychosis in childhood. *Journal of Child Psychology and Psychiatry*, 1: 53-72

Baldessarini R (1999). Reduced risk of suicidal behavior in bipolar disorder patients during long-term treatment with lithium. Presented at the Third International Conference on Bipolar Disorders June 17-19, Pittsburgh, PA

Barham P & Hayward R (1998). In sickness and in health: Dilemmas of the person with severe mental illness. *Psychiatry*, 61: 163-170

Bauer A & Shea T (1999). Learners with emotional and behavioral disorders. New Jersey: Prentice-Hall

Beitchman J, Patterson P, Gelfand B, Minty G (1982). IQ and child psychiatric disorder. *Canadian Journal of Psychiatry*, 27:23-28

Benson P (1994). Deinstitutionalization and family caretaking of the seriously mentally ill: The policy context. *International Journal of Law and Psychiatry*, 17:119-38

Biederman J & Faraone S (1995). Childhood mania revisited. *Israel Journal of Medical Sciences*, 31: 647-51

Biederman J, Faraone S, Chu M, Wozniak J (1999). Further evidence of a bidirectional overlap between juvenile mania and conduct disorder in children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38:468-76

Biederman J, Faraone S, Mick E, Wozniak J, Chen L, Oullette C, Marris A, Moore P, Garcia J, Mennin D, Lelon E (1996). ADHD and juvenile mania: An overlooked comorbidity? *Journal of the American Academy of Child and Adolescent Psychiatry*, 35: 997-1008.

Breggin P (1998). Talking back to ritalin. Maine: Common Courage Press.

Bulbena A & Berrios G (1993). Cognitive function in the affective disorders: A prospective study. *Psychopathology*, 26: 6-12

Carlson G (1995). Identifying prepubertal mania. Journal of the American Academy of Child and Adolescent Psychiatry, 34: 750-53

Carlson G (1996). Clinical features and pathogenesis of child and adolescent mania. In K. Shulman, M. Tohen, & S. Kutcher, (Eds.), Mood disorders across the lifespan. (pp. 127-148). New York: John Wiley & Sons

Carlson G, Fenneg S, & Bromet E (1994). The confusion between bipolar disorder and schizophrenia in youth: Where does it stand in the 1990's? Journal of the American Academy of Child and Adolescent Psychiatry, 33: 453-60

Chang K (1999). Characterization of bipolar offspring: A window into prodromal childhood bipolar disorder. Presented at the American Academy of Child & Adolescent Psychiatry 46th Annual Meeting, Chicago, Illinois, October 19-24, Symposium 61.

Coryell W, Scheftner W, Keller M, Endicott J, Maser J, Klerman G (1993). The enduring psychosocial consequences of mania and depression. American Journal of Psychiatry, 150: 720-27

Dalby J & Williams R (1986). Preserved reading and spelling ability in psychotic disorders. Psychological Medicine, 16: 171-75

Daniels E, Shenton M, Holzman P, Benowitz L, Coleman M, Levin S, Levine D (1988). Patterns of thought disorder associated with right cortical damage, schizophrenia, and mania. American Journal of Psychiatry, 145: 944-949

Davis R (1979). Manic-depressive variant syndrome in childhood: A preliminary report. American Journal of Psychiatry, 136: 702-706

Decina P, Kestenbaum C, Farber S, Kron L, Gargan M, Sackheim H, Fieve R (1983). Clinical and psychological assessment of children of bipolar probands. American Journal of Psychiatry, 40: 548-53

DePaulo R (1997). Overview of studies, the state of the search for bipolar genes. Lecture, 2nd International Conference on Bipolar Disorder, June 19-21, Pittsburgh, PA

Docherty N, Hawkins K, Hoffman R, Quinlan D, Raffeldt J, Sledge W (1996). Working memory, attention, and communication disturbances in schizophrenia. Journal of Abnormal Psychology 105: 212-19

Dulcan M, Bregman J, Weller E, Weller R (1995). Treatment of childhood and adolescent disorders. In A. Schatzberg & C. Nemeroff, (Eds.), The American psychiatric press textbook of psychopharmacology, (pp. 669-706). Washington: American Psychiatric Press

Dunn L & Dunn L (1981). Peabody Picture Vocabulary Test – Revised. Circle Pines, MN: American Guidance Service

Faraone S, Biederman J, Wozniak J, Mundy E, Mennin D, O'Donnell D (1997). Is comorbidity with ADHD a marker for juvenile-onset mania? Journal of the American Academy of Child and Adolescent Psychiatry, 36:1046-55

Ferrier I, Stanton B, Kelly T, Scott J (1999). Neuropsychological function in euthymic patients with bipolar disorder. *British Journal of Psychiatry*, 175: 246-251

Forness S (1982). Issues and recommendations for school programs in community psychiatric hospitals. *Education and Treatment of Children*, 5: 69-77

Forness S & Barnes T (1981). School follow-up of adolescents treated in a psychiatric hospital. *Child Psychiatry and Human Development*, 11: 179-185

Forness S & Cantwell D (1982). DSM III psychiatric diagnoses and special education categories. *Journal of Special Education*, 16: 49-63

Forness S & Kavale K (1989). Identification and diagnostic issues in special education: A status report for child psychiatrists. *Child Psychiatry and Human Development*, 19: 279-301

Forness S & Langdon F (1974). School in a psychiatric hospital. *Journal of Child Psychiatry*, 13: 562-75

Fuchs, D. (1994). Clozapine treatment of bipolar disorder in a young adolescent. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33: 1299-1302

Geller B & Luby J (1997). Child and adolescent bipolar disorder: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36: 1168-76

Geller B, Williams W, Zimmerman B, Frazier J, Beringer L, Warner K, (1998). Prepubertal and early adolescent bipolarity differentiate from ADHD by manic symptoms, grandiose delusions, ultra-rapid or ultradian cycling. *Journal of Affective Disorders*, 51: 81-91

Gillberg C., Hellgren L., Gillberg C. (1993). Psychotic disorders diagnosed in adolescence. Outcome at age 30 years. *Journal of Child Psychology and Psychiatry*, 34: 1173-85

Goldfarb P. (1992). The psychiatric hospital adolescent experience: Toward greater school/hospital understanding and communication. *Preventing School Failure*, 36: 37-42

Goodwin F. & Jamison K. (1990). Manic-depressive illness. New York: Oxford University Press

Graham P, Weingarden S, Murphy P (1991). School reintegration: A rehabilitation goal for spinal cord injured adolescents. *Rehabilitation Nursing*, 16: 122-27

Grant E, Wagner R, Weiss K (1999). Observations on emerging patterns of asthma in our society. *Journal of Allergy and Clinical Immunology*, 104: S1-S9

Handwerk M & Marshall R (1998). Behavioral and emotional problems of students with learning disabilities, serious emotional disturbance, or both conditions. *Journal of Learning Disabilities*, 31: 327-38

Hellgren L, Gillberg C, Enerskog I (1986). Antecedents of adolescent psychosis: A population-based study of school health problems in children who develop psychosis in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 26: 351-55

Hoff A, Shulka S, Cook B, Aronson T, Ollo C, Pass H (1988). Cognitive function in manics with associated neurologic factors. *Journal of Affective Disorders*, 14: 251-55

Jacobsen L & Rapoport J (1998). Research update: Childhood onset schizophrenia – implications of clinical and neurobiological research. *Journal of Child Psychology and Psychiatry*, 39: 101-113

Kjelsberg E & Dahl A (1998). High delinquency, disability and mortality – A register study of former adolescent psychiatric inpatients. *Acta Psychiatrica Scandinavica*, 98: 34-40

Kovacs M, Devlin B, Pollock M, Richards C, Mukerji P (1997). A controlled family history study of childhood-onset depressive disorder. *Archives of General Psychiatry*, 54: 613-623.

Kutcher S, Robertson H, Bird D, (1998). Premorbid functioning in adolescent onset bipolar I disorder: A preliminary report from an ongoing study. *Journal of Affective Disorders*, 51: 137-44

Krasa N & Tolbert H (1994). Adolescent bipolar disorder: A nine year experience. *Journal of Affective Disorders*, 30: 175-84

LaBuda M, Maldonado M, Marshall D, Otten K, Gerhard D (1996). A follow-up report of a genome search for affective disorder predisposition loci in the old order Amish. *American Journal of Human Genetics*, 59: 1343-62

Lapalme M, Hodgins S, Laroche C (1997). Children of parents with bipolar disorder: A meta-analysis of risk for mental disorders. *Canadian Journal of Psychiatry*, 42: 623-31

Manitoba Education and Training (1998). The Manitoba special education review. Winnipeg: Proactive Information Services, Inc.

McKay A, Tarbuck A, Shapleske J, McKenna P (1995). Neuropsychological function in manic-depressive psychosis. Evidence for persistent deficits in patients with chronic, severe illness. *British Journal of Psychiatry*, 167: 51-7

Nasr S & Atkins R (1977). Coincidental improvement in asthma during lithium treatment. *American Journal of Psychiatry*, 134: 1042-43

Neuman R, Geller B, Rice J, Todd R (1997). Increased prevalence and earlier onset of mood disorders among relatives of prepubertal versus adult probands. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36: 466-473

Okin R (1995). Testing the limits of deinstitutionalization. *Psychiatric Services*, 46: 569-574

Olin S, Mednick S, Cannon T, Jacobsen B, Parnas J, Schulsinger F, Schulsinger H (1998). School teacher ratings predictive of psychiatric outcome 25 years later. *British Journal of Psychiatry*, 172: 7-13

Papatheodoros G & Kutcher S (1996). Treatment of bipolar disorder in adolescents. In K. Shulman, M. Tohen, & S. Kutcher. (Eds.), Mood disorders across the lifespan. (pp. 159-186). New York: John Wiley & Sons

Quackenbush D, Kutcher S, Robertson H, Boulos C, Chaban P (1996). Premorbid and postmorbid school functioning in bipolar adolescents: description and suggested academic interventions. *Canadian Journal of Psychiatry*, 41: 16-22

Reynolds, W. & Johnston, H. (1994). Current issues in child and adolescent depression. In W. Reynolds & H. Johnston. (Eds.), Handbook of depression in children and adolescents (pp. 3-17). New York: Plenum Press

Rothaus F & Wolkon G (1977). Continuity of care between the psychiatric hospital and public schools. *Community Mental Health Journal*, 13: 46-53

Salokangas R & Saarinen S (1998). Deinstitutionalization and schizophrenia in Finland: I. Discharged patients and their care. *Schizophrenia Bulletin*, 24: 457-67

Sattler J (1992). Assessment of children. San Diego: Author

Sexson S & Madan-Swain A (1993). School re-entry for the child with chronic illness. *Journal of Learning Disabilities*, 26: 115-25

Shole-Martin, S. & Alessi, N. (1988). Adaptive functioning in children hospitalized for psychiatric disturbances. *Journal of the American Academy of Child & Adolescent Psychiatry*, 27: 636-41

Sigurdsson E, Fombonne E, Sayal K, Checkley S (1999). Neurodevelopmental antecedents of early-onset bipolar affective disorder. *British Journal of Psychiatry*, 174: 121-27

Sinclair E, Forness S, Alexson J (1985). Psychiatric diagnosis: A study of its relationship to school needs. *The Journal of Special Education*, 19: 333-344

Solomon P & Evans D (1992). Service needs of youths released from a state psychiatric facility as perceived by service providers and families. *Community Mental Health Journal*, 28: 305-315

Speier P, Sherak D, Hirsch S (1995). Depression in children and adolescents. In E. Beckham & W. Leber. (Eds.), Handbook of depression, (p. 467-93). New York: The Guilford Press

Stratta P, Mancini I, Mattei P, Danzeluzzo E, Bustini M, Casacchia M, Rossi A (1997). Remediation of Wisconsin card sorting test performance in schizophrenia. *Psychopathology* 30: 59-66

Strober M (1997). Naturalistic prospective course of juvenile bipolar illness. Lecture, 2nd International Conference on Bipolar Disorder, June 19-21, Pittsburgh, PA

Strober M, Morrell W, Burroughs J, Lampert C, Danforth H, Freeman R (1988). A family study of bipolar I disorder in adolescence. *Journal of Affective Disorders*, 15: 255-68

Stuart J & Goodsitt J (1996). From hospital to school: How a transition liaison can help. *Teaching Exceptional Children*, 28: 58-62

Taylor S & Bogdon R (1998). Introduction to qualitative research methods: A guidebook and resource. New York: John Wiley & Sons

van Gorp, W., Altshuler, L., Theberge, D., Wilkins, J., Dixon W. (1998). Cognitive impairment in euthymic bipolar patients with and without prior alcohol dependence. *Archives of General Psychiatry*, 55: 41-46

Varsamis, J. (1995). Depression of childhood and adolescence (Lecture booklet): Author

Vila G, Nollet-Clemencon C, Vera M, Robert J, de Blic J, Jouvent R, Mouren-Simeoni M, Scheinmann P (1999). Prevalence of DSM-IV disorders in children and adolescents with asthma versus diabetes. *Canadian Journal of Psychiatry*, 44: 562-69

Volkmar F (1996). Childhood and adolescent psychosis: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35: 843-51

Wamboldt M, Weintraub P, Krachick D, Wamboldt F (1996). *Journal of the American Academy of Child and Adolescent Psychiatry*, 35: 1042-49

Weissman M, Bland R, Canino G, Faravelli C, Greenwald S, Hwu H, Joyce P, Karam E, Lee C, Lelouch J, Lepine J, Rubio-Stipec M, Wells J, Wickramaratne P, Wittchen H, Yeh E (1996). Cross-national epidemiology of major depression and bipolar disorder. *Journal of the American Medical Association*, 276: 293-99

Weller E, Weller R, Fristad M (1995). Bipolar disorder in children: Misdiagnosis, under-diagnosis, and future directions. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34: 709-14

Werry J & McClellan J (1992). Predicting outcome in child and adolescent (early onset) schizophrenia and bipolar disorder. *Journal of The American Academy of Child and Adolescent Psychiatry*, 31:147-50

Werry J, McClellan J, Chard L (1991). Childhood and adolescent schizophrenic, bipolar, and schizoaffective disorder: A clinical and outcome study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30: 457-65

Woodcock R (1977). Woodcock-Johnson Psycho-Educational Battery: Technical report. Allen, TX: DLM Teaching Resources

Worchel-Prevatt F, Heffer R, Prevatt B, Miner J, Young-Saleme T, Horgan D, Lopez M, Rae W, Frankel L. (1998). A school re-entry program for chronically ill children. *Journal of School Psychology*, 36: 261-79

Wozniak J, Biederman J, Kiely K, Ablon J, Faraone S, Mundy E, Mennin D (1995). Mania-like symptoms suggestive of childhood-onset bipolar disorder in clinically referred children. *Journal of The American Academy Child and Adolescent Psychiatry*, 34: 867-76

Zarate C & Tohen M (1996). Epidemiology of mood disorders throughout the life cycle. In K. Shulman, M. Tohen, & S. Kutcher, (Eds.), Mood disorders across the lifespan. (pp. 17-34). New York: John Wiley & Sons

APPENDIX A: CHART DATA FORM - PART A (MEDICAL)

SUBJECT # _____ D.O.B. _____ GENDER _____

LARGE URBAN _____ SMALL URBAN _____ RURAL/RESERVE _____

FAMILY Hx OF Px? _____ Y _____ N _____ DETAILS _____

FINAL DIAGNOSIS/(ES) AND CODE(S) _____

OTHER PROVISIONAL & R/O DIAGNOSES _____

GAF (IF PROVIDED) _____ (LOWEST) _____ (HIGHEST)

AGE AT 1ST ADMISSION _____ FACILITY _____

PRESENTING PROBLEM AT 1ST ADMISSION _____

_____ HALLUCINATIONS _____ DELUSIONS _____ CATATONIA _____ AGITATION

AGE AT LAST DISCHARGE FROM UNIT _____

ADMISSION Hx:

DURATION OF ADMISSION(S): TOTAL DAYS _____

AVERAGE DAYS FOR MULTIPLE ADMISSIONS _____

TYPE & # OF ADMISSION STATUS(ES): _____ SHORT-TERM/ASSESSMENT
_____ DAY TREATMENT _____ LONG-TERM
MEDS INPATIENT _____
MEDS DISCHARGE _____
ABUSE/INGESTION OF (CURRENT AND/OR PAST): _____ ALCOHOL _____ SNIFF
_____ ILLEGAL SUBSTANCES _____ PRESCRIPTION NARCOTICS
DISCHARGE OR DISCONTINUATION AMA? _____ YES _____ NO
ESTIMATED AGE OF ILLNESS ONSET _____
ESTIMATED DURATION OF SYMPTOMS PRIOR TO 1ST ADMISSION _____

COMMENTS:

CHART DATA FORM – PART B (EDUCATIONAL)

HOME SCHOOL(S) PRIOR TO 1ST ADMISSION:

RECEIVING SCHOOL(S) AT DISCHARGE:

STUDENT Hx OR DATA PROVIDED BY HOME SCHOOL(S)? _____ YES _____ NO

IF YES, TYPE: ASSESSMENT _____

ATTENDANCE _____

BEHAVIOR _____

INPATIENT SCHOOL? _____ YES _____ NO _____ # WEEKS

INPATIENT ED. ASSESSMENT? _____ YES _____ NO _____ FSIQ

_____ PIQ _____ WJ-BCA _____ PPVT _____ VIQ

OTHER TESTS:

SUMMARY OF ASSESSMENT:

RELATIVE STRENGTHS OR TALENTS NOTED:

AREAS IN NEED OF SUPPORT/REMEDIATION:

ATTENDANCE CONCERNS AT INPATIENT SCHOOL? _____

STUDENT IEP? _____ YES _____ NO _____ UNKNOWN

IF SO, DESIGNED BY WHOM? _____

EDUCATIONAL PLANNING ACTIVITIES: MEETINGS _____

TELEPHONE _____ LETTER _____

RECEIVING SCHOOL PRIMARY CONTACT:

INDICATIONS OF FORMAL COLLABORATION

INDICATIONS OF INFORMAL COLLABORATION:

ENROLLED SUBJECTS AT INPATIENT SCHOOL:

GENERAL TEACHER COMMENTS:

OCCUPATIONAL THERAPY ASSESSMENT? _____ YES _____ NO

AREA(S) OF CONCERN:

AREA(S) OF STRENGTH OR ABILITY:

RECOMMENDATIONS:

COMMENTS:

APPENDIX B: Inpatient Staff Interview Questions

1. Is the home school contacted when a student is a) admitted to the hospital, b) discharged from the hospital, c) a student at the inpatient school?

2. Is educational diagnostic testing performed at any point when students attend the inpatient school? If so, how are the data shared with the receiving school? Do home schools provide student histories including academic, behavioral, and teacher summaries of the student?

3. Are individual education plans developed by inpatient school staff. If so, what are the criteria for development (i.e. duration of attendance), is the IEP created in conjunction with the receiving school, and does the inpatient IEP have transferability and precedence at the receiving school?

4. Is the telephone the primary vehicle for communication? Are detailed notes recorded in the student's chart? Are paper communications only those which are formal letters or memos?

5. Does inpatient school staff attend any or all meetings held on behalf of the returning student at the receiving school? If so, does their attendance at these meetings only occur while the student is still in hospital or does contact continue once the student has returned to the community? Are inpatient school staff regularly invited by the receiving school to participate in such meetings?

6. Does inpatient school staff notify the receiving school of the student's impending discharge? If so, how long before discharge does this occur?

7. Are medical and inpatient school staff involved in contingency planning for illness relapse once the student is discharged to the receiving school?

8. Should inpatient school staff have a direct say in educational placement and program options, or are recommendations only appropriate?

9. Could the educational aftercare planning process be improved in any way?

APPENDIX C: Receiving School Staff Interview Questions

1. What is your understanding of bipolar disorder and other serious psychiatric illness in regards to its impact upon the educational needs of an ill student? Has contact with or information provided by hospital staff had an impact?
2. Does your school /do you take make the initial contact with a hospital when a student becomes an inpatient? With whom do you usually communicate? (Social worker, bridging teacher, nurse/doctor)
3. What is the general preparation undertaken to receive a returning or new student form inpatient hospital status?
4. Are inpatient school IEP's something that is seen in meetings on behalf of the returning student?
5. Is there any contact with the medical or inpatient school staff after the student is reintegrated, re: support, consultation?
6. Do you see the need to make unique program modifications for bipolar and similarly ill students than you might for students who experience learning disabilities, conduct/aggression problems, or developmental/medical disabilities?
7. Do inpatient school staff attend planning meetings at your school while the student is still in hospital in preparation for his/her return?
8. Should inpatient school staff have a direct say in educational placement and program options, or are recommendations only appropriate?
9. Could the educational aftercare planning process be improved in any way?

APPENDIX D: Letter of Information and Consent – Inpatient Staff

August, 1999

Dear X:

I am conducting a study that will fulfill requirements for my Master's Degree thesis. The purpose of the study is to gain a detailed account from you regarding your activities and experiences with planning for the transition of students with bipolar disorder from the hospital to a receiving school. It is my intention to produce an account that accurately reflects the process of educational aftercare planning and your perceptions of general areas of strength and good practices, and areas in need of strengthening surrounding communication and planning in reintegration. You may reserve the right to withdraw from study participation at any time.

The study will involve collecting information about your role and experiences through an in-depth interview. One in-person two hour interview and possibly one follow-up telephone call (approximately 15 minutes) will be asked of you as a participant. Interviews will be audio taped for the purpose of data transcription. The audio tape will be destroyed at the conclusion of the study and the transcribed data will be stored securely. Privacy will be maintained through use of pseudonyms. The interview will be conducted at the unit at a time most convenient for you. The follow up telephone call will also be pre-arranged and will occur approximately three months after the interview. A summary of the main finding of the study will be made available to you. The findings from this study may be used for publication. Summaries will be sent via the mail after the final draft of the thesis is approved and the oral defense is successfully completed. Questions regarding this study may be directed to myself at 444-2757, to Dr. James Newton at 477-6391.

Participant Consent:

I, _____ agree to participate as a key informant in "*Transition of adolescent students with bipolar disorder from hospital to receiving schools: The educational aftercare planning process*". I understand that I will be audio taped during interviews and that I have the right to withdraw from the study at any time.

(participant signature)

(investigator)

Date _____

APPENDIX E: Letter of Information and Consent – Receiving School Staff

November, 1999

Dear X,

My name is Tracey Trudeau and I am a Master's student in the Faculty of Education at the University of Manitoba. I am conducting a study that will fulfill requirements for my Master's Degree thesis. The purpose of the study is to gain a detailed account from you regarding your activities and experiences with planning for the transition of students from an inpatient psychiatric facility to your school. It is my intention to produce an account that accurately reflects the process of educational aftercare planning and your role as a contact/liaison at the receiving school. Additionally, I will also ask about your perceptions of general areas of strength and good practices, and areas in need of strengthening surrounding communication and planning in reintegration with the hospital staff. You may reserve the right to withdraw from study participation at any time.

An one hour interview will be asked of you as a participant. Privacy will be maintained through use of pseudonyms. The interview will be conducted at your school or in a place convenient for you. A summary of the main findings of the study will be made available to your division. The findings from this study will be used for public presentation and may be used for publication. Questions regarding this study may be directed to myself at 444-2757, to Dr. James Newton at 477-6391 or to Dr. Charlotte Evans at University of Manitoba (474-6393).

Participant Consent:

I, _____ agree to participate as a key informant in "***Transition of adolescent students with bipolar disorder from hospital to receiving schools: The educational aftercare planning process***". I understand that I will be audio taped during interviews and that I have the right to withdraw from the study at any time.

(participant signature)

Date _____