Multidisciplinary Education and Consultation Clinic:
Evaluation of a Mental Health Clinic for Children and Adolescents.

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Executive Summary

Multidisciplinary Education and Consultation Clinic (MECC) is a consultee-oriented clinic offering teaching and psychiatric consultation to physicians, allied health community professionals, and the families they refer. The clinic operates one day per month, 10 months of the year, and provides psychiatric consultation, psychological screening, and social work services to children and their families in this community who are struggling with mental illness. The main goal of the clinic is to increase the capacity of the physicians and allied health professionals who treat these children in an area where there is no child and adolescent psychiatry service available. The secondary goal of the clinic is to provide service that improves the symptoms and functioning of the child living with a mental illness.

The clinics have recently expanded to include psychological testing and an assessment coordinator who links the family to community services. We are currently involved in gathering data to evaluate the clinic. Pre and post tests using the Child Behaviour Checklist (CBCL), Brief Child and Family Phone Interview (BCFPI), Multidimensional Anxiety Scale (MASC), and Child Depression Inventory (CDI), as well as physician/allied health questionnaire, are in use at present to evaluate knowledge transfer as well as a symptom improvement.

To date, information continues to be gathered at various intervals. Symptom improvement will be analyzed once the 6 month questionnaires have been completed. Initial questionnaires from physicians are showing that the health professional feels the clinic has assisted with their knowledge and comfort level when treating children struggling with mental illness. Statistical analysis of this data is pending.

Initial data collected is showing a decrease in the number of paediatric mental health admissions and an increase in physician knowledge and comfort when managing these cases. In areas where there is no psychiatric service available to children and adolescents, it is important that physicians are adequately educated in the management of mental illness. It is our belief that this clinic contributes to increasing capacity for health professionals to provide treatment to children struggling with mental illness, thereby keeping them from developing more serious symptoms as a result of their illness. This clinic has the potential to directly impact admissions to the paediatric unit for mental health issues.
Project Summary

Multidisciplinary Education and Consultation Clinic (MECC) is a consultee-oriented clinic offering teaching and psychiatric consultation to physicians, allied health community professionals, and the families they refer. With no child and adolescent psychiatry available in this community, it is necessary to not only provide service to this population, but also training for the paediatricians and family practitioners who will be providing primary care to these children in their offices. The clinic operates one day per month, 10 months of the year, and provides psychiatric consultation, psychological screening, and social work services to children and their families in this community who are struggling with mental illness.

The clinics have recently expanded to include psychological testing and an assessment coordinator who links the family to community services. We are currently involved in gathering data to evaluate the clinic. Pre and post tests using the Child Behaviour Checklist (CBCL), Brief Child and Family Phone Interview (BCFPI), Multidimensional Anxiety Scale (MASC), and Child Depression Inventory (CDI), as well as physician/allied health questionnaire, are in use at present to evaluate knowledge transfer as well as a symptom improvement. Pre and post tests for the child and family are being conducted at the initial visit, the 3 month mark, and the 6 month mark. Physician/allied health questionnaires are being distributed and scored at the initial visit, the 2 week mark, and the 8 week mark. The team is also tracking the number of mental health admissions (both voluntary and involuntary) to our general paediatric unit.

Goals and Objectives of the evaluation:

1) Assess knowledge transfer from the teaching clinic to the physicians and allied health professionals who present cases. Specifically, we will evaluate the professional’s comfort with children’s mental health issues, comfort with family interviews, interview skills with families, knowledge of the mental health system and services, diagnostic skills, knowledge of treatment/management strategies, comfort with having all participants involved, and understanding of mental health language. Questionnaires will be administered to the professionals directly after the initial consultation, 2 weeks after the case presentation and at the 8 week mark.

2) Assess change in symptoms and functioning prior to accessing the clinic, at 3 months following the initial consultation, and at the 6 month mark following consultation. This will be done through use of several tools. All families will complete the BCFPI and the CBCL. Where warranted, the families may complete the CDI and the MASC as well.
3) Continue to monitor the number of paediatric inpatient admissions for mental health issues. This will include a breakdown by diagnosis as well as identifying which patients were voluntary versus involuntary.

**Expected Outcomes:**

1) Knowledge transfer will be seen in the physician/allied health professional in the following areas: comfort with children mental health issues, comfort with family interviews, improved interview skills with families, knowledge of mental health system and services, diagnostic skills, knowledge of treatment/management strategies, comfort with having all participants involved, and understanding of mental health language.

2) Symptom reduction and functional improvement in the child/family accessing the clinic.

3) Reduction in the number of children admitted to paediatrics for mental health issues. Specifically, we expect that those children who have typically been admitted for behaviour crisis/situational crisis will no longer require hospitalization as a result of the professional's increased capacity to manage such issues in an outpatient setting.

**Related Research**

Children and youth mental health conditions comprise a significant component of paediatrician’s practices with an estimation in the literature of 10-30% (1,2,3). In a meta-analysis of research from the past 20 years looking at the prevalence of mental illness in Canadian children, Wadell et al (2002) found that the overall prevalence rates for all clinical mental illness in children was 14%, or 1.1 million Canadian children. In addition, 47 to 68% of Canadian children with mental illness suffer from 2 or more mental disorders (4).

Paediatricians have described feelings of inadequacies in training necessary to recognize and treat mental health disorder in children and youth (5). In 1980 over 50% of paediatrician’s surveyed rated their training in adolescent and psychosocial paediatrics “inadequate in quantity and poor in quality”(6). Slowik and Noronha (2004) report that only 25% of paediatricians surveyed in the United Kingdom received some form of training in child psychiatry, providing further evidence of this ongoing problem (7). Given these issues in the care of children and youth a novel mediator-model (consultee-oriented) consultation and education clinic was established in 1993 in a small regional center in which interaction occurred between a child psychiatrist, paediatric social worker and local consulting paediatricians. The model was found to be very effective in increasing the skills of the paediatricians involved and has continued over the last decade (8,9). Dissemination of the model to a larger group has been undertaken with good success (10).

Despite the existence of this model in this center there continued to be significant issues with the severity of mental health admissions to the local hospital with the hypothesis that the children were not receiving timely mental health intervention
from their primary care physicians (11). An extensive literature review over 5 decades recognized a strong need for ongoing mental health training for primary care physicians (12). A recent Canadian study suggests the use of innovative programs to support family physicians in their management of children with mental health needs (13).

References

Methodology

The MCEC team elected to use a longitudinal time series pilot study to evaluate the clinic. This design is useful for a study with a small sample size where a control group is not feasible. This research design also allows the mental health team to evaluate professionals, children and families at various stages of treatment over a period of time. Data will be collected for at least one year. As children and families attend the clinic, their participation in this evaluative study will be requested. As a result, data collection will continue over the year as families and physicians attend the clinic.

A copy of the physician/allied health professional survey is included in the appendices. The professional survey is done at baseline, 2 weeks following the consultation, and at 8 weeks following the consultation. We are assessing functional improvement in the child through the use of the MASC, CDI, and the CBCL, all of which are included as Appendices as well. (Please note that due to copyright restrictions, we are unable to include a copy of the BCFPI in the Appendices.) These test instruments are done at baseline, 3 months, and 6 months. Data on the number of mental health admissions to the paediatric department at OSMH is collected and collated by the OSMH Health Records Department.

This evaluation, while necessary to ensure we are meeting the needs of the families and professionals we serve, is affected by several limitations. First, the physician/allied health professional questionnaire is not a standardized/validated tool. Also, responses to this questionnaire depend on the professional’s interest in the education process used in this clinic. We are also not able to factor for the physician/allied health professional’s training prior to attending this clinic. In terms of functional improvement, our small sample size does not allow us to factor out the different types of mental illness seen in this clinic. This may impact functional improvement in certain families.

Results

Program evaluation is ongoing and data is being collected continually. The first round of physicians/allied health professionals and children/families enrolled in the study began in December, 2007. As a result, we are currently evaluating the 3 month data collected and will be ready to evaluate the 6 month data in June of 2007. As a result, no firm data is currently available to disseminate. Results will be made available for the Knowledge Exchange Report due on September 30, 2007.
Conclusion & Recommendations/Next Steps
This research project is currently in the data collection stage. The first round of physicians/allied health professionals and children/families have been sampled and the data analysis is scheduled to begin once the 6 month data is received from our first study cohorts in June 2007. In general, OSMH is committed to evaluation of all of its programs, and we recognize that since the clinic augmentation and additional funding, it is imperative that we ensure that we are meeting the needs of our clients and health professionals. We anticipate that data collection and evaluation will continue for the rest of 2007. We are hopeful that at that point, we will have more information available to us to guide future development of this clinic.

Knowledge Exchange Plan
Findings from this evaluative project will be presented at Grand Rounds in the Fall of 2007. We also intend to publish our findings once data has been gathered and processed. The team anticipates that this research/evaluation will be ongoing for at least one year.