CHILD AND ADOLESCENT PSYCHIATRY EDUCATION FOR PRIMARY CARE PHYSICIANS

Dr. S. Khalid-Khan, MD, DABPN
Dr. R. Fitzpatrick, MD, FRCPSC
Dr. J. Blais, PhD, CPysch
Ms. L. Hall
Faculty: Sarosh Khalid-Khan

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None
MITIGATING POTENTIAL BIAS

- The funding from the Jeanne Mance Foundation has not affected the conduct of this study
OBJECTIVES

 To examine the outcome of child psychiatry training on primary care physicians

 To assess the change in physician confidence and competence pre-training, immediately post-training, and then three and six months post-training

 To examine change in referral patterns to specialized services
In Canada, mental health problems are the leading cause of morbidity in children and adolescents (Health Canada, 2002).

As many as 14% of children and adolescents are affected by a mental health problem.

By the year 2020, this number is predicted to increase by 50%.
The prevalence of clinical and sub-threshold mental health problems is about 19% - 42% (Hilty et al, 2009)
Primary Care Physicians play a central role in the recognition and management of child and youth mental health.

Approximately 75% of children and adolescents are first seen in a primary care setting.

Primary Care Physicians are in a unique position to identify and manage paediatric patients with mental health disorders due to a perceived lack of stigma in being treated by a family physician. (Sarvet et al, 2011)
Only a minority of Primary Care Physicians have adequate formal training in child and adolescent psychiatry (Steele et al, 2010)

There are very few studies which have demonstrated that educating Primary Care Physicians can change physician knowledge and behaviour
A cross-sectional study of family physicians in rural/remote Southwestern Ontario reported that 84.3% of respondents felt they needed more training in child and adolescent psychiatry.

**Suggestions:**
- Continuing Medical Education in the community
- Small group teaching by a child psychiatrist
- Self-instructional packages
In this study, family physicians ranked the following topics in child psychiatry as the most important:

- Behaviour Disorders
- Attention Deficit Hyperactivity Disorder
- Problem Adolescents
- Interviewing Skills
Another Canadian study, in which a family physician and a child psychiatrist, developed a curriculum for rural Primary Care Physicians consisting of:

- didactic presentations
- video examples of interviewing skills,
- informal discussions with small groups

This was found to be an effective curriculum for teaching children’s mental health.  (Steele et al, 2010)
The present study examined the effect of knowledge transfer from child and adolescent Psychiatrists to Primary Care Physicians by using pre- and post-training questionnaires and examining Primary Care Physician referral patterns to specialty clinics in the Division of Child and Adolescent Psychiatry at Hotel Dieu Hospital, Kingston, Ontario
This is a prospective outcome study of knowledge transfer to Primary Care Physicians using an on-site training program at their offices.

The training program is based on the executive training package created by Dr. Stan Kutcher, the Sun Life Financial Chair in Adolescent Mental Health.

The target population was Primary Care Physicians and nurse practitioners in the SELHIN area.
Information sheets were distributed to all physicians and participation was entirely voluntary.

Consent forms were completed by the Primary Care Physicians on the day of the training before the start of the session, and confidentiality was maintained by anonymous data collection.

All participants completed the knowledge and confidence questionnaire prior to the first session (t0).
The training program consisted of eight modules:

- Module 1 - Overview of general adolescent mental health
- Module 2 - Core Treatment Components
- Module 3 - Core Measurement Tools
- Modules 4 - 7 - Screening, Assessment, Diagnosis & Treatment
- Module 8 - Pharmacological Treatments
The format of the training program provided ample opportunity for questions and discussion.

The Primary Care Physicians completed knowledge and confidence questionnaires at four points throughout the study:

- Before training (t0)
- Immediately after training (t1)
- 3-months post-training (t2)
- 6-months post-training (t3)
The outcomes were measured using the pre- and post questionnaires and we examined referral patterns for the study year to those of the previous year.

Data was analyzed using Multivariate Analysis of Variance (MANOVA) for repeated measures.

For the knowledge and comfort measures we expect to see an improvement for t0 to t1 and to endure to t2.

Referral patterns were assessed to see if there was a change in referral patterns for the four disorders included in the training.
We expected to see an increase in referrals for specific problems arising in diagnosis or treatment of children and adolescents within the four disorders discussed during training.

This study was approved by the Research Ethics Board of Queen’s University.
## Results

- 23 family physicians (MD) and nine nurses:
  - Of these, 30 were males and nine were females
  - Mean years of experience was 16.7 years (Range 1 - 45 years; SD: 11.51)
  - All participants completed pre-training questionnaires and the attrition rate immediately post training was 7.89%

<table>
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<th>Occupation</th>
<th>Frequency</th>
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<td>MD</td>
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<tr>
<td>Nurse</td>
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Repeated measures t-test was conducted to compare mean pre-training knowledge score \((M = 13.20, \ SD = 5.05)\) to mean post-training score \((M = 23.26, \ SD = 4.77)\).

The post-training group scored significantly higher than the pre-training group \((t(35) = 12.57, \ p<.001)\).
Repeated measure t-test was conducted to compare mean pre-training comfort score ($M = 3.52, SD = 4.06$) to mean post-training comfort score ($M = 22.00, SD = 17.34$).

The post training group scored significantly higher than the pre-training group ($t(20)=-4.75, p<.001$).
Referrals by Primary Care Physicians to the mood and anxiety clinic decreased by 31% while simultaneously...

Referrals to the urgent consult clinic changed from common non-comorbid disorders to complex moderate to high comorbidities
CONCLUSIONS

- The primary care training program was effective in increasing both knowledge and comfort with the target disorders immediately after training.
- After training, there was a reduction in referrals to specialized services and an increase in complexity in referrals to urgent consult clinic.
LIMITATIONS

- Significant attrition rate at t2 and t3 resulted in insufficient data
  - Future research can explore ways of further engaging PCPs in longitudinal research participation

- Correlation, not causation
  - Other community factors that were not accounted for may have had effect on referrals
  - Future research to evaluate complex community factors in PCP referral patterns.
REFERENCES


