

# CHILD AND ADOLESCENT PSYCHIATRY EDUCATION FOR PRIMARY CARE PHYSICIANS

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# FACULTY/PRESENTER DISCLOSURE

- **Faculty:** Sarosh Khalid-Khan
- **Relationships with commercial interests:**
  - **Grants/Research Support:** Jeanne Mance Foundation of Hotel Dieu Hospital, Kingston, Ontario
  - **Speakers Bureau/ Honoraria:** N/A
  - **Consulting Fees:** N/A
  - **Other:** N/A

# DISCLOSURE OF COMMERCIAL SUPPORT

- ◉ **This program has received financial support from** Jeanne Mance Foundation of Hotel Dieu Hospital, Kingston, Ontario **in the form of** an educational grant.
- ◉ **Potential for conflict(s) of interest:**  
None

# MITIGATING POTENTIAL BIAS

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

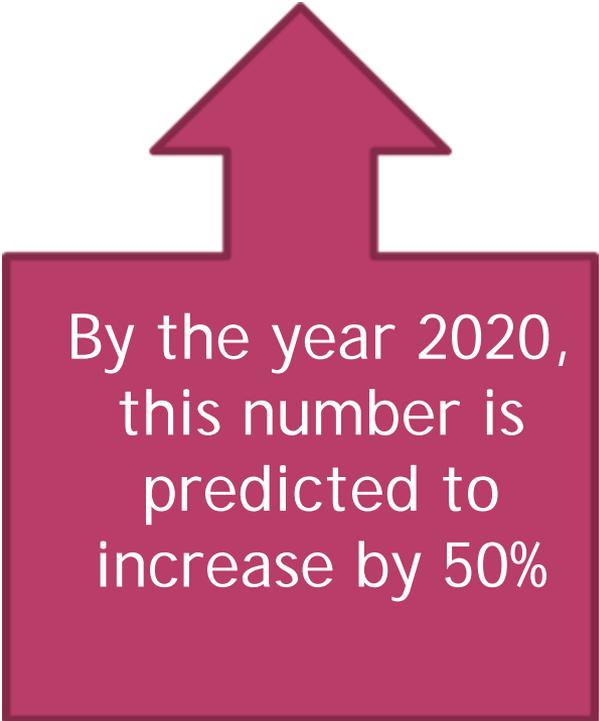
# OBJECTIVES

- ◉ 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

# INTRODUCTION

In Canada, mental health problems are the leading cause of morbidity in children and adolescents (*Health Canada, 2002*).

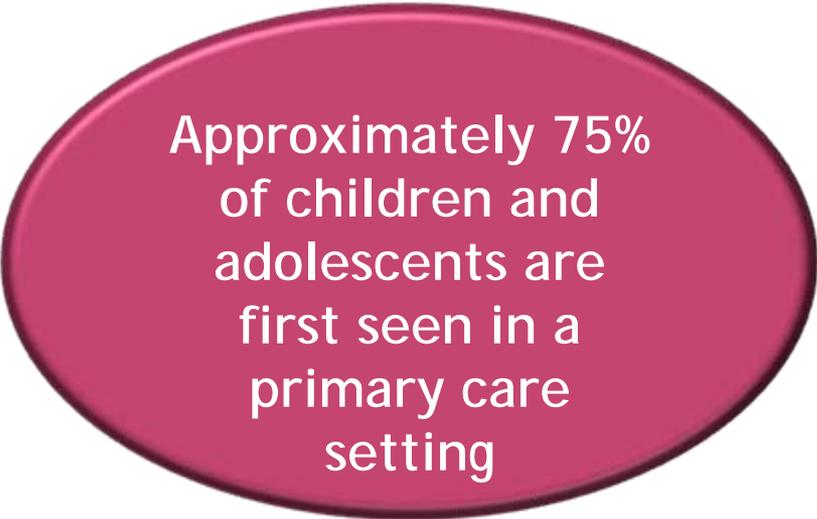
As many as 14%  
of children and  
adolescents are  
affected by a  
mental health  
problem



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:



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

# METHODS

- 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%

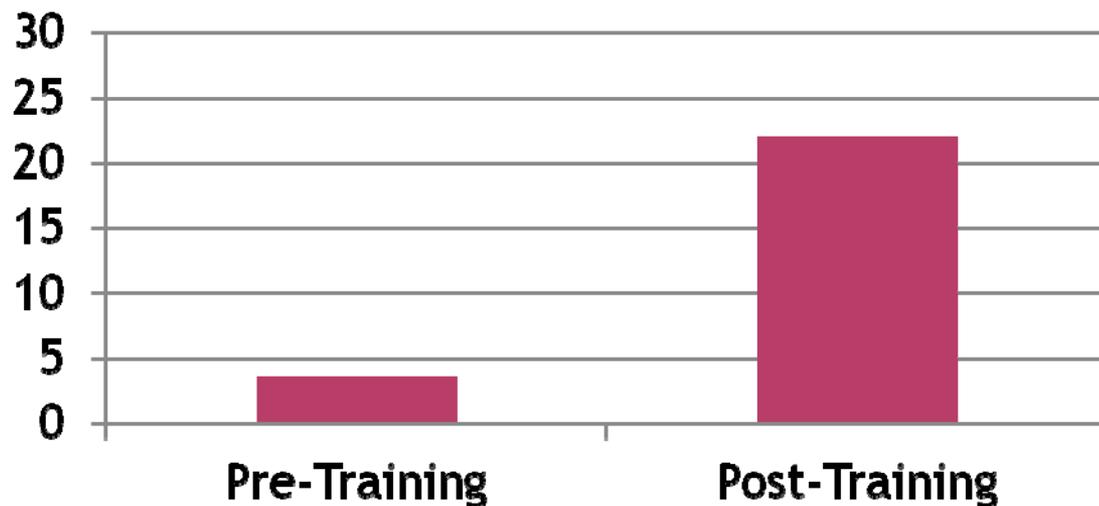
Occupation	Frequency	Percent
MD	23	60.5
Nurse	9	23.7
Admin	3	7.9
Social Work	2	5.3
Unknown	1	2.6



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 ( $t(35) = 12.57$ ,  $p < .001$ ).

## Comfort



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.

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