Teaching Child and Adolescent Psychiatry to Family Medicine Trainees: A Pilot Experience

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Objectives: To develop learning objectives for teaching child psychiatry to family medicine trainees and to evaluate the best method of teaching these objectives.

Method: For this descriptive study, knowledge, attitude, and skill objectives were presented to trainees at the start of a 6-month rotation, and an evaluation mechanism was developed based on the learning objectives. The method of instruction in each of the training locations was described independently by the child psychiatry consultant and attending family physician. The trainees’ evaluations were presented according to training locations.

Results: Family medicine trainees perceived the teaching—consultation method, with live interviews, to be the most helpful and the didactic lecture format to be least helpful.

Conclusion: The importance of teaching family medicine residents to recognize mental health problems in children and adolescents, preferably by using live interviews, and the implications for postresidency practice are emphasized.

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Key Words: primary care, child psychiatric disorder, learning objectives, teaching—consultation

There are indications that emotional and behavioural problems in children and adolescents have become more prevalent. Achenbach and Howell (1) have reported higher problem scores and lower competency scores between 2 randomly selected community samples 13 years apart. Eighteen percent of the subjects (7 to 16 years) in the 1989 study scored in the clinical range on the Child Behavior Checklist (2) total problem score, compared with 10.0% of the subjects in 1976. The prevalence rates of disorder in recent surveys have been remarkably consistent among various studies (3), but there is a considerable gap between estimates of need determined by diagnosis (with psychosocial impairments) and estimates of need determined by service utilization. Thus, while approximately 20% of children have at least one disorder that meets DSM-III or DSM-III-R criteria, with associated reduction in ability to function at home, at school, and with peers, only 1% of children in the United States receive mental health services in mental health settings (4). Some 6% receive services related to mental health within the primary care and school systems (5).

The Ontario Child Health Study reported a comparable prevalence rate of disorder (19%) among 4- to 16-year-olds in a random survey of 3294 Ontario households (6). In addition, 60% of those children identified in the survey as having a disorder had been seen by a family physician in the 6 months prior to the survey. Thus the primary care physician is in an important position to detect and intervene in mental health problems in the child and adolescent population. Preparation for this role is best undertaken by ensuring an adequate educational experience in this area during residency training.
Study Objective

Four family medicine teaching centres at The University of Western Ontario and affiliated community-based practices have been involved in an ongoing teaching experience with a child psychiatrist. Teaching sessions were initiated at Location C 6 years earlier, and the program had subsequently expanded (3 years later) to include the other centres. The program had been operational with monthly visits by a child psychiatrist to each centre for the past 3 years. The experience at each centre has varied according to the style of the child psychiatrist and preference of the centre. The goal of this project was to determine whether any of the teaching approaches used more adequately accomplished a set of uniform learning objectives, as evaluated by the trainees.

Method

A set of learning objectives was established by a joint committee of the child psychiatry consultants (SF, MMS, NRG) and a family physician coordinator (JS). The objectives were reviewed and revised by one of the family medicine centres and the final draft approved by The University of Western Ontario Family Medicine Training Committee. There were 7 knowledge objectives, 3 attitude objectives, and 7 skill objectives.

An evaluation mechanism was developed based on the learning objectives (MAS). The evaluation comprised 2 assessments. The first of these consisted of a response by trainees to each objective regarding their confidence in their ability (on a 4-point scale) and the degree to which they thought the sessions improved their ability (on a 5-point scale). These response choices were adapted from a measure of self-efficacy of students designed by Tresolini and Stritter (7). The second assessment allowed residents to identify effective teaching and learning incidents during the sessions. These questions were adapted from Flanagan (8), Dunn and Hamilton (9), and Calman and Donaldson (10).

The child psychiatry consultants were asked to outline the methods of instruction in each of the 4 family medicine centres and the 4 community-based practices. The family physician coordinating the teaching program was asked to provide a parallel description of the teaching sessions.

The learning objectives were distributed to the trainees at the start of a 6-month rotation at the beginning of their first child and adolescent psychiatry teaching session. The evaluation forms were completed by trainees at the end of the rotation. A modified Dillman method (11) was used for follow-up. The 5 sessions evaluated provided a snapshot of a one-year rotation for the trainees in each centre.

The evaluation forms were addressed to each resident with a cover letter and handed out to the residents at the last teaching session for child and adolescent psychiatry in the 6-month rotation. A total of 33 questionnaires were handed to all eligible residents registered in the training program during this 6-month rotation. Telephone contact was made to each key person in the department of family medicine to encourage residents to complete the evaluation forms if they had not done so by the deadline date (JS). The results of the evaluations were tabulated and grouped according to the training location. Analysis was conducted on Epi-info software (12).

Methods of Instruction in Each Centre (Table I)

Overall there were 5 sessions ranging each from 1.5 to 2.5 hours’ duration over the 6-month training block in family medicine.

Location A. A case presentation was done by a resident; an interactive process occurred for approximately 90 minutes among the child psychiatrist, residents, and family physician(s) to explore the level of knowledge of the group and promote discussion around management of the problem. Topics for discussion were selected by the residents and included behavioural problems, hyperactivity, learning disabilities, parenting problems, anxiety, separation, eating disorders, and adolescent adjustment problems. There was occasional use of didactic presentations and handouts.

Location B. Teaching was conducted by the child psychiatrist in didactic lecture format with associated handouts. Only residents were in attendance, and the session lasted approximately 120 minutes. Topics covered included general principles of child management, attention deficit hyperactivity disorder, adolescence, learning disabilities, elimination disorders, and depression–suicidal assessment. Case discussion and cases for interview were encouraged but not selected.

Location C. The model used was teaching–consultation. A relevant case was selected in rotation by one of the family practice teams. The case was presented by the resident and family physician with input from other team members, for example, a nurse or social worker. A genogram was drawn with an overview of the identified patient and a description

<table>
<thead>
<tr>
<th>Location</th>
<th>Format</th>
<th>Method</th>
</tr>
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<tbody>
<tr>
<td>Site A</td>
<td>Predominantly informal</td>
<td>Case presentation and discussion</td>
</tr>
<tr>
<td>Site B</td>
<td>Didactic</td>
<td>Lectures and handouts on specific topics</td>
</tr>
<tr>
<td>Site C</td>
<td>Semistructured</td>
<td>Case presentation, live interview, group participation</td>
</tr>
<tr>
<td>Site D</td>
<td>Predominantly informal</td>
<td>Case presentation and discussion</td>
</tr>
<tr>
<td>Site E</td>
<td>Semistructured, some didactic teaching</td>
<td>Lectures, case presentation, live interviews</td>
</tr>
</tbody>
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of the family history. This was followed by a live interview conducted by the child psychiatrist and resident using a one-way mirror so that other team members could watch the interview. Interviews were limited to 75 minutes, allowing 45 minutes for discussion and treatment planning. Discussion followed a biopsychosocial model, and the group participated in identifying predisposing, precipitating, perpetuating, and protective factors, which were recorded on a grid. A treatment plan was developed out of the perpetuating and protective factors, and some aspects of the case were highlighted for discussion; relevant reading may subsequently have been sent to the centre. The family returned to the centre the following week for feedback from the resident and relevant team members and for implementation of the treatment plan. There was opportunity for informal review of the patient’s progress and monitoring of the plan during subsequent consultant visits to the clinic.

**Location D.** A genogram and case presentation format was used focusing on a child or adolescent behavioural problem; sessions were 120 minutes long. A resident and family physician team would be responsible in turn for one of the presentations. The child psychiatrist led the group discussion, emphasizing case management. Case material was used to guide discussion themes, which included conduct and attention deficit hyperactivity disorder, custody and access, separation and divorce, as well as family violence and substance abuse.

**Location E.** Residents in 4 community-based practices attended monthly 2-hour seminars in London in various child psychiatry settings. Several child psychiatrists participated in these sessions. Residents obtained different experiences depending on the setting and the child psychiatrist providing teaching. A variety of teaching methods, including seminars, case presentation, and a live teaching–consultation format, were employed. The residents were encouraged to bring cases from their rural practices; for the most part, however, the child psychiatrists provided cases. Duplication of topics was a possibility because each child psychiatry consultant was not aware of what had been previously discussed.

### Results

A total of 25 questionnaires were returned for an overall response rate of 76%. Table II shows the distribution and response rate by location of training.

Knowledge areas that residents indicated they were least confident in were developmental delays and disorders and the use of psychopharmacologic agents in children and adolescents. Residents indicated they felt most confident in their knowledge of contributions and expertise from other members of the health care team. The 5 sessions were perceived by the majority as helpful in improving all knowledge areas. The area of psychopharmacologic agents, however, showed the lowest percentage of students who thought the teaching was helpful (Table III).

In terms of the attitudinal objectives, responses indicated a high rate of confidence in the multifactorial etiology of mental health problems and the contributions of both child and environment to risk of developing mental health problems. The residents appeared comfortable with the role of the family physician and the referral process for child and adolescent psychiatric services (Table IV).
Residents identified 3 skill areas in which they felt a lack of confidence. These areas were the management of a child with disruptive behaviour, the management of common mood and anxiety disorders, and the detection of dysfunctional eating patterns (Table V). The sessions were perceived as being the least helpful in improving their skills in the management of common mood and anxiety disorders and the detection of dysfunctional eating patterns and somewhat helpful in the area of management of a child with disruptive behaviour disorder. Most help was identified in their ability to differentiate transient from serious problems.

In order to examine which method of teaching was potentially the most helpful from the residents’ perspective, a comparison was made of the evaluations from each centre (Table VI).

**Location A (Case Presentation).** Sixty-nine percent of residents rated the sessions as helpful, with similar rates reported in all 3 target areas (62% to 78%).

**Location B (Didactic Lecture Format).** Thirty-eight percent of residents indicated that the sessions were helpful. The area in which they identified the least help was skill.

**Location C (Live Teaching–Consultation Format).** Ninety-one percent of residents reported the sessions as helpful, with similar rates reported in all 3 areas (88% to 95%).

**Location D (Case Presentation Format).** Eighty-two percent of residents indicated that the sessions were helpful, with particular improvements noted in the knowledge and attitude areas and, to a lesser degree (63%), in the skill area.

**Location E (Seminar Format, Case Presentation, Live Teaching–Consultation Format).** Eighty-six percent of the residents indicated the sessions to be helpful, particularly in the attitude area and, to a somewhat lesser degree, in the skill and knowledge areas.

The second method of assessment allowed residents to identify specific effective or ineffective teaching or learning incidents during the 5 sessions. This part of the evaluation form was completed by only 10 of the 25 respondents. The reason for this low completion rate among respondents is unknown. These results are best recorded in descriptive terms reflecting either a positive or negative critical incident.

Location A (case presentation) was noted for its highlighting of the protective value of a supportive environment but was criticized for the lack of opportunity to observe interviewing and the need to learn basic skills in diagnosis and management of common problems in child and adolescent psychiatry groups.

One of the strengths of Location B (didactic lecture) was a lecture on encopresis, but strong criticism of the format for not emphasizing interviewing skills and techniques for mental health problems in this age group was reported.

Location C (live teaching–consultation format) respondents highlighted several positive aspects of live interviewing: role modelling of techniques for diagnosis and management of common problems in child and adolescent psychiatry groups.

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Location D (case presentation format) respondents highlighted the specific areas of diagnosis and treatment of attention-deficit hyperactivity disorder and conduct disorder, emphasizing the usefulness of handouts and mildly criticizing the format for being too didactic at times.

The location that used a combination of seminar, case presentation, and live teaching–consultation formats (Location E) received positive feedback regarding its inclusion of live interviews, which residents could participate in and/or observe. There was some criticism of seminars that were too didactic, with requests for more live interviews.

**Discussion**

While there are different methods for teaching child psychiatry in family medicine, this descriptive study suggests...
that there are some ingredients in the teaching method that may be more effective than others. The least effective teaching strategy from the residents’ viewpoint was the didactic lecture format. The most helpful was the case presentation and live teaching–consultation method. The most important component was the participation in or observation of the live interview.

This descriptive study provides a guide for programs that are developing a curriculum and teaching methodology for teaching child psychiatry to family medicine trainees. The training objectives incorporate the knowledge, attitude, and skill areas to be covered. The resident feedback strongly suggests that the experiential teaching—observing a live clinical problem and participating in its assessment—was most helpful in accomplishing the outlined objectives. Supplemental handouts and some seminar teaching are useful, but they are probably of secondary importance. The receptiveness on the part of the family physician is a major factor in the success of providing teaching within the family practice system.

Family practitioners are in a unique position because they are often the first physicians to see children and adolescents who may be suffering from emotional and psychiatric problems. Family physicians can recognize early parent–child problems and the impact of parental psychiatric disorder on offspring. When distressed youngsters seek advice or treatment for emotional or behavioural disorders, the majority report being most likely to consult a family physician (13). With limited child psychiatry resources in Canada, it is important that family physicians feel comfortable assessing and treating common child and adolescent psychiatric problems and know when to refer patients to child psychiatrists and other allied mental health professionals. Awareness of the part of family physicians of the increase in children’s mental health problems, the growing waiting lists for specialty consultation, and a need to feel competent in dealing with these problems have improved the receptiveness of family physicians to child psychiatry teaching, especially in a university teaching centre.

Residency training is the optimum time to teach relevant knowledge and skills in the management of child and adolescent mental health problems and instill a positive attitude toward the understanding of psychosocial aspects of practice relevant to children’s health. Previous studies have identified that various types of physicians have felt their adolescent medicine training was inadequate in psychosocial aspects of medicine. Blum and Bearinger (14) found that 351 American physicians, including pediatricians, family physicians, and internists, were most likely to perceive their adolescent medicine training as insufficient in areas that encompassed psychosocial concerns.

Lena and others (15) surveyed 45 physicians who completed the pediatric residency program at the University of Ottawa and Children’s Hospital of Eastern Ontario from 1977 to 1987 to ascertain the pediatricians’ perceived skill level in the delivery of adolescent health care after their residency training. Deficiencies in adolescent medicine training were identified in several areas with a psychosocial component.

Shapiro and others (16) surveyed 30 residency-trained family physicians, all currently in practice, to determine the nature of their psychosocial interactions with patients. Physician psychosocial competency was most strongly related to residency, but not to postresidency, behavioural science training, or psychosocial screening practices. These studies stress both the need for and importance of obtaining good psychosocial training in residency so that the techniques will be used throughout one’s practice and be expanded upon in later years. It would be logical to implement similar changes in the undergraduate medical curriculum and begin to address the teaching of mental health issues early in the evolution of a medical career.

The teaching of child psychiatry to family practitioners and pediatricians is crucial. Residents will need to have clearly defined objectives for learning child psychiatry. Within these objectives, it is vital that residents become familiar with common psychiatric problems, in particular mood and anxiety disorders and disruptive behaviour disorders. The incorporation of live interviews appears to be essential, especially for the development of skills and the acquisition of knowledge around common child psychiatry problems. Family practice consultants are also important in the learning process because they model learning from other specialists and apply their new knowledge when instructing residents. There is a need to replicate this study in order to affirm optimal teaching methods in child psychiatry and to develop national guidelines for family practice training programs.

Clinical Implications

- Children’s mental health problems frequently present to the family physician.
- A guide is presented for programs developing a curriculum and teaching methodology for child psychiatry training in family medicine.
- Residency training is the optimum time to teach relevant knowledge and skills and instill a positive attitude about managing child mental health problems.

Limitations

- This is a pilot study, and the findings need to be replicated across teaching centres.
Acknowledgement

The authors would like to acknowledge the role of the late Dr Paul Patterson in planning this project and remember his enthusiasm and commitment to teaching generally and teaching of child psychiatry in family medicine specifically.

References


Résumé

Objectifs : Fixer des objectifs d’apprentissage afin d’enseigner la pédiopsychiatrie à des stagiaires en médecine familiale et évaluer la meilleure méthode pour atteindre ces objectifs.

Méthodes : Dans le cadre de cette étude descriptive, on a présenté des objectifs en matière de connaissances, d’attitudes et de compétences à des stagiaires au début d’un roulement de 6 mois, et on a élaboré un mécanisme d’évaluation fondé sur les objectifs d’apprentissage. Dans chacun des lieux de formation, le conseiller en pédiopsychiatrie et le médecin de famille traitant ont décrit indépendamment la méthode d’enseignement. Les évaluations des stagiaires ont été présentées selon les lieux de formation.

Résultats : Les stagiaires en médecine familiale percevaient la méthode d’enseignement-consultation, assortie d’entrevues en direct, comme la plus utile et la formule des exposés didactiques comme la moins utile.

Conclusion : On insiste sur l’importance d’enseigner aux résidents en médecine familiale à reconnaître les problèmes de santé mentale des enfants et des adolescents, de préférence au moyen d’entrevues en direct, et sur l’incidence de cet enseignement sur l’exercice après la résidence.