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Recent epidemiologic studies have found that most patients with mental illness are seen exclusively in primary care medicine. These patients often present with medically unexplained somatic symptoms and utilize at least twice as many health care visits as controls. There has been an exponential growth in studies in this interface between primary care and psychiatry in the last 10 years. This special section, edited by **Jürgen Unutzer, M.D.**, will publish informative research articles that address primary care-psychiatric issues.

Mental health and psychiatry training in primary care residency programs☆ Part I. Who teaches, where, when and how satisfied?

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Abstract

Objective: Some 40% of patients treated by primary care physicians have significant mental health problems. Only about half eventually receive mental health care, usually by the primary care physicians, often inadequately. Recently, there has been an increased attempt to incorporate psychiatry in primary care training programs. The authors sought to assess the current status of psychiatry training in Internal Medicine (IM), Family Practice (FP), Pediatrics (Peds) and Obstetrics and Gynecology (Ob/Gyn) residency programs.
Method: All 1365 directors of accredited residency training programs in IM, FP, Ob/Gyn and Peds received a 16-item anonymous questionnaire in 2001–2002, collecting descriptive data concerning their psychiatry training.
Results: A great majority of IM (71%), Ob/Gyn (92%) and Peds (85%) training directors felt that the training was minimal or suboptimal, as compared to 41% of FP training directors ($P<.001$). Sixty-four percent of FP program directors were satisfied with their training ($P<.001$). In contrast, 54% of other PC program directors were dissatisfied with their psychiatry training. All programs utilized ambulatory care setting extensively. Family Practice programs had more types of mental health teachers, teaching formats and teaching settings ($P<.001$). A majority of IM (57%) and Peds (70%) residencies desired more psychiatry training in their programs compared to only a third of FP and 40% of Ob/Gyn programs ($P<.001$). Teaching in clinical settings was preferred by all except Ob/Gyn programs ($P<.001$). Psychiatry departments contributed more to IM and Peds programs than others.
Conclusion: A majority of primary care training programs are dissatisfied with the current status of their psychiatric training except for FP programs. Family Practice programs have the most variety in training formats, venues and teachers. There are some specialty-specific differences in perceived needs and desires in psychiatric training.

Keywords: Mental health care; Primary care physician; Internal Medicine; Psychiatry education; Residency training; Pediatrics; Obstetrics and Gynecology

1. Introduction

It is generally recognized that some 30–40% of patients who are treated by primary care physicians have significant mental health problems [1–5]. Recent prevalence studies of primary care patients report major depression to be highest (19–26%; in partial remission, 9%), followed by dysthymia (16%), generalized anxiety (13–15%), panic (7–8%), substance use (8%) and suicidal ideation (7%) [4,6]. Only about half of these patients will eventually receive treatment for them, usually by primary care physicians, and often, inadequately [7–10]. There is considerable body of literature indicating that primary care patients who have mental illness tend to use more resources, tend to be more disabled and are considered more difficult [11–15]. Integrated treatment may reduce the amount of disability and excessive medical utilization [14,16].

The need to train primary care physicians in mental health has been widely recognized, including the, Accreditation

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Council for Graduate Medical Education (ACGME), and a number of proposals and model curricula have been published to enhance mental health training in primary care programs [17–22]. What is, then, the status of mental health training in primary care training programs? Two national surveys have been published since 1990, when the practice environment of medicine began to change dramatically. One of the studies dealt with internal medicine (IM) exclusively, and the other surveyed IM and Family Practice (FP) programs [23]. Pediatricians are the primary care physicians for children; Obstetrics and Gynecology (Ob/Gyn) physicians often serve as the first medical points of contact for women in the United States. The Accreditation Council for Graduate Medical Education (ACGME) recognized the primary care aspect of Pediatrics (Peds) and Ob/Gyn, and instituted a requirement for behavioral science/mental health training in Peds and Ob/Gyn as well as in IM and FP. Accreditation Council for Graduate Medical Education has also recently instituted a requirement that all resident trainees be able to demonstrate competency in effective listening skills, communication and counseling, and education with their patients and families (ACGME, 1999). In spite of this recognition of the primary care nature of Peds and Ob/Gyn, there have been no studies about the status of mental health training in these specialties.

We conducted a survey of the directors of residency training in IM, FP, Ob/Gyn and Peds concerning the status of mental health/psychiatry training in their programs, the skills and diagnostic categories taught, their satisfaction with the teaching and their perceived needs and desires. This report addresses the current status of mental health training in IM, FP, Peds and Ob/Gyn residency programs as of 2001–2002. In subsequent reports, we will address, among others, the factors contributing to satisfaction in training and similarities and differences in training mental health across primary care specialties.

2. Method

2.1. The subjects

The list of 1365 directors of accredited residency training programs for academic year 1999 in IM, FP, Ob/Gyn and Peds was obtained from the American Medical Association.

Table 1
AMA listing: 1365 programs

	Sent	Response	Rate %
FP	500	323	65
IM	395	168	43
OB	256	87	34
Peds	206	111	54
PC unidentified		52	4
Invalid address		93	
Overall response		733	58% of valid addresses

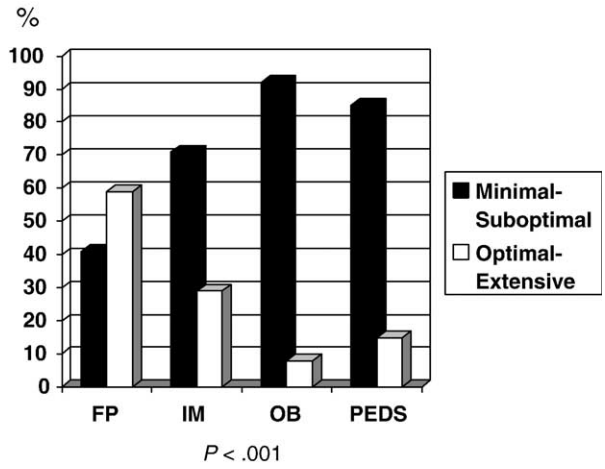

Fig. 1. Amount of psychiatry training, $P<.001$.

2.2. The questionnaire

The authors developed a 16-item questionnaire that included the (a) amount of psychiatric/mental health training residents received; (b) the degree of satisfaction with the training, training venues and training faculty; (c) the current training, adequacy and (d) desirability for more training in various psychiatric skills and diagnoses; (e) their feelings about the role of primary care physician in treating mental illness; and (f) the type of institution/facility the program was based. The questionnaire was pretested with several programs, revised and finalized.

Following institutional review board approval, the questionnaire was put up on a web site in March 2001, and an email was sent to all program directors who had a listed email address, inviting them to participate in the study by clicking on the web site or filling out the email form and replying to the email. Those who did not have an email address listed and those who did not respond to the email request were sent hard copies of the questionnaire. The study concluded in October 2002.

2.3. Data analysis

Questionnaire responses were entered into a Microsoft Access database and Excel spreadsheets. Data analysis utilized ANOVA, χ^2 and student t tests utilizing SPSS. Continuous variables were analyzed utilizing the independent samples t test and categorical variables with the χ^2 test for independence.

3. Results

3.1. Questionnaire response

The overall response rate was 58% (Table 1). Only 85 (18%) of the 733 program directors who responded used the web site. Family Practice programs had the best response rate, followed by Peds, IM and Ob/Gyn. Ninety-three

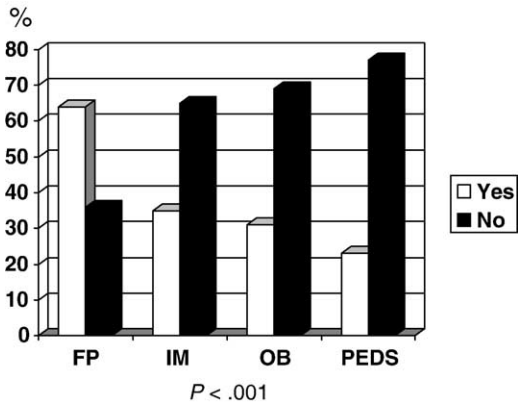

Fig. 2. Satisfaction with psychiatry training, $P<.001$.

programs had either closed or the director could not be reached.

3.2. Amount of training

There was a striking difference between the program directors' assessment of the amount of psychiatric training between FP and all other primary care training programs. A great majority of IM (71%), Ob/Gyn (92%) and Peds (85%) training directors felt that the training was minimal or suboptimal, as compared to 41% of FP training directors (Fig. 1). Conversely, a majority (59%) of FP training directors felt that the amount of training was optimal to extensive, compared to IM (29%), Ob/Gyn (8%) and Peds (15%).

3.3. Satisfaction with psychiatric training

A large majority of FP programs (64%) were satisfied with the psychiatric training their residents received as compared to about one third of IM, Ob/Gyn and one fifth of Peds programs (Fig. 2). Overall, a majority (54%) of all the primary care training directors were dissatisfied with the level of psychiatric training their residents received.

3.4. Training formats

Mental health training occurred most often in didactic sessions and case conferences across specialties (Table 2). All specialties utilized didactic sessions and case conferences extensively in mental health training. Only FP programs offered special courses and joint rounds in significant numbers (25%). Family Practice provided individual supervision most, followed by IM, Peds and Ob/Gyn. Family Practice programs had the greatest number of formats. Internal Medicine and Peds programs utilized more faculty from the psychiatry department, whereas 82% of FP programs hired non-M.D. mental health professionals and 21% hired psychiatrists. Less than 10% of any other program hired psychiatrists. Almost half (45%) of Peds programs hired mental health professionals to provide teaching.

Table 2
Training formats (%)

	FP	IM	OB	Peds	P
Didactic	97	91	90	96	.001
Case conference	77	68	44	69	.001
Individual	76	39	22	36	.001
Special courses	29	11	3	4	.001
Integrated	51	42	36	35	.01
Joint rounds	38	18	7	11	.001

inpt=inpatient; psych/mh=psychiatrist or mental health professional; PC=primary care physician; Ambul=ambulatory.

Table 3
Percentage of training in various settings

	FP	IM	OB	Peds	P
Bedside inpt by psych/mh	8.7	19.4	9.9	17	.001
Bedside inpt by PC	12.6	19.8	13.2	12.3	.001
Clin rounds on inpt by psych/mh	9.9	8.2	10.7	12.7	NS
Ambul setting by psych/mh	38.4	20	22.8	26.4	.001
Ambul setting by PC	32.6	36.3	45.4	36.1	.001

inpt=inpatient; psych/mh=psychiatrist or mental health professional; PC=primary care physician; Ambul=ambulatory.

3.5. Training venues

All types of primary care programs utilized the ambulatory care setting extensively for psychiatric teaching, regardless of whether it was done by mental health professionals or primary care physicians (Table 3). Thirty-eight percent of FP training was in ambulatory care settings by a mental health professional or psychiatrist, followed by Peds (26%), OB (23%) and IM (20%). About half (45%) of psychiatric training in Ob/Gyn programs was done by primary care physicians, followed by 36% each in IM and Peds programs. Surprisingly, only a third of psychiatric training in FP programs was provided by primary physicians.

Family Practice programs had decidedly more types of mental health teachers, teaching formats and teaching settings ($P<.001$) (Table 4).

3.6. Psychiatry department's contribution and resident rotation

Forty-two percent of FP programs (more than any other primary care program) rotated their residents to psychiatry departments (see Table 5). This compares to about one third of IM and Peds programs. Very few Ob/Gyn programs had their residents rotating to psychiatry. In terms of psychiatry

Table 4
Variety of training venues (0–9)

	Mean	S.D.
FP	5.9	1.98
IM	4.5	2.03
OB	3.0	1.99
Peds	4.4	1.92

$F=60.5$, $df=3$, $P<.001$.

Table 5
Psychiatry department contribution in % (*n*)

	FP	IM	Ob/Gyn	Peds	*P*
Provide psych/mh, To teach without cost	39 (125)	54 (91)	36 (31)	60 (59)	.001
Didactic courses without cost	10 (31)	9 (15)	37 (32)	42 (41)	.05
Didactic courses at cost	10 (19)	10 (10)	7 (6)	3 (3)	NS
PC rotate to psych without cost to PC	42 (135)	33 (56)	2 (2)	31 (30)	.001
PC rotate to psych at cost	3 (10)	2 (3)	0	2 (2)	NS
Psychiatry department contribution (kinds), mean (S.D.)	1.3 (1.06)	1.5 (0.90)	0.82 (0.72)	1.38 (0.88)	.001

PC=primary care resident; psych=psychiatry department.

residents rotating to primary care, almost half (40%) of IM and Peds (42%) had psychiatry residents rotating to them, compared to 13% of FP programs. Ten percent or less of the primary care residencies paid their psychiatry departments for didactic courses or rotations. Overall, psychiatry departments' contribution to teaching was greatest for IM and Peds and less for Ob/Gyn and FP.

3.7. Ideal desiderata

A majority of IM (57%) and Peds (70%) residencies desired more psychiatry training in their programs as opposed to only a third of FP and 40% of Ob/Gyn programs. Only about a third of FP, IM and Peds programs desired more didactic training as contrasted to nearly half of Ob/Gyn programs (Table 6). A majority of Peds, IM and FP program directors would like more mental health teaching in clinical settings as compared to less than half of Ob/Gyn programs. Joint conference format was favored by about half of the Peds, 40% of IM, but only by a third of FP and Ob/Gyn programs. Almost two thirds (64%) of Peds programs wanted more psychiatrists and mental health professionals teaching in primary care settings compared to about 40% of FP and IM programs and only 23% of Ob/Gyn programs. There was very little enthusiasm (10% or less) for joint psychiatry/primary care residency training programs.

4. Discussion

The overall response rate to our study was 58%, which is comparable to the two other surveys of this type whose response rates were 53% and 61% [23,24]. As we guaranteed anonymity of responses, it is impossible to know whether there is a difference between the responders and nonresponders. It seems possible, however, that academic institutions may be somewhat overrepresented among the responders as 63% of responders had major academic affiliation as compared to 48% of the total number of training programs. As academic institutions are more likely to have more access to psychiatry departments and psychiatrists, it is possible that our sample may have more opportunities for psychiatric training than the nonresponders. Surprisingly, only 18% of the program directors utilized the e-mail form of questionnaire.

A large majority of FP residencies in our study consider psychiatric training to be optimal or extensive and are satisfied with their training. On the other hand, 70% to 75% of IM, Ob/Gyn and Peds programs rated their mental health training to be suboptimal to minimal, and 65% to 77% of these programs were dissatisfied with their mental health training. This is consistent with the findings of Gaufberg et al. [23] who found that 28% of FP and 58% of IM directors would like to expand the time devoted to require psychosocial training in the programs. What underlies this difference between FP and the rest of primary care training programs?

One possible explanation is that the difference actually reflects differences in the quality and quantity of training. Another possibility is that there may be differences in the threshold for satisfaction among the different specialties. Our finding that FP programs offer a greater diversity of teaching formats, venues, postgraduate years and teachers may partially support the notion that FP provides more and better psychiatric training. Gaufberg et al. [23] also found, in their survey, that FP programs offered greater range of psychosocial experiences than IM programs. There may also have been more deliberate attempts to improve mental health training in FP programs [20,25]. Our finding that

Table 6
Ideally, would like

	FP	IM	OB	Peds	*P*
More psych training	32 (105)	57 (95)	40 (35)	70 (69)	.001
Less psych training	0.3 (1)	0	1 (1)	0	NS
More didactic	31 (100)	33 (56)	48 (42)	37 (36)	.05
More in clinical setting	54 (174)	64 (107)	45 (39)	71 (70)	.001
Joint case conference	34 (110)	41 (69)	33 (29)	52 (51)	.01
More psych/MH working in PC	40 (130)	46 (78)	23 (20)	64 (63)	.001
Joint PC/psych training program	10 (32)	8 (13)	6 (5)	9 (9)	NS

more FP programs rotate their residents to psychiatry than any other types of programs tends to support this notion. It is interesting that FP programs have less teaching contribution from their psychiatry departments as compared to IM and Peds. In part, this may be related to the fact that only 28% of FP programs have a psychiatry department in the same institution. This may also in part explain why FP programs hire more mental health professionals and psychiatrists than any other program. Psychiatry departments, on the other hand, seem to provide more kinds of contribution to IM programs, although only 49% of IM, as compared to 82% of Peds, and 73% of Ob/Gyn programs have psychiatry residency programs in the same institution.

Hodges et al. [26], following a review of literature on the training of primary care physicians in psychiatry, recommended that the training be contextual and longitudinal. It appears that many FP programs in our survey are providing such training, as evidenced by training throughout the 3 years of residency (about 75%), and being integrated with primary care training (51%). In spite of the relatively optimal rating for FP, however, fully 36% of FP programs, 65% of IM, 69% of OB and 77% of Peds programs were dissatisfied with their training in mental health.

What are the areas that need augmentation? Our study suggests that more diversity of venues, formats and teachers are needed for IM, OB and Peds programs, and more in clinical settings, integrated with primary care curriculum, with more psychiatrists and mental health professionals working in the primary care setting.

Providing an adequate and effective learning experience to primary care residents in mental health is increasingly important, as the nation faces a growing shortage of psychiatrists and the ACGME demands performance-based competencies. This paper begins to describe the types of mental health training that is believed to be necessary to deliver this curriculum in the primary care residencies.

Consultation-liaison psychiatrists are in a particularly good position to advocate the need for more diverse, clinically based, case-oriented mental health training as they encounter patients with both mental health and medical needs together with the primary care physicians. Consultation-liaison psychiatrists should also advocate increasing the psychiatry department's contribution to primary care departments by offering to participate in primary care departments' grand rounds and case conferences, and by actively participating in the general education of the medical school and community.

The discrepancy between FP and all other primary care programs in regard to satisfaction with their psychiatry training raises intriguing questions: Are expectations of instructional quality different between primary care disciplines? How meaningful is satisfaction as a quality proxy? Is it specialty dependent? How does satisfaction with training from the program directors' point of view translate into competencies of resident trainees? Left unanswered by this study is the all-important question: How do we measure quality of instruction in mental health in graduate medical education programs?

The dissatisfaction with the current state of psychiatry training in primary care programs invites us to revisit the question: What and how much psychiatry should be taught in these programs? Should training in psychiatry for FP be identical/similar to that in IM, OB and Peds? Should the primary care physician be trained to be comfortable in diagnosing and treating most psychiatric conditions or sufficiently to recognize and then refer such patients? Further outcome-based studies are needed to answer these questions and to develop effective and efficient methods of teaching psychiatry to primary care physicians.

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