

Psychosocial Performance of Family Physicians

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This study surveyed 30 residency-trained family physicians all currently in practice to determine the nature of their psychosocial interactions with patients. In general, respondents were satisfied with the quality of their psychosocial training in residency and generally evaluated their competency on a range of psychosocial skills as adequate to excellent. Physician psychosocial competency was most strongly related to residency, but not to postresidency, behavioral science training or to psychosocial screening practices. Frequency of performing psychosocial behaviors was also related to behavioral science training, as well as to length of time in practice. Neither frequency nor self-perceived competency related to physician age, gender, patient volume, or type of practice.

KEY WORDS: Psychosocial Performance, Behavioral Science Training, Psychosocial Screening

Since its inception, the discipline of family medicine has expended much time and effort on preparing its residents to adopt a comprehensive, biopsychosocial approach (1) in dealing with patients. Although much of this learning is incorporated informally through the teaching and rounding of physician attendings, the importance of a psychosocial perspective has been established formally through the development of behavioral science curricula (2).

However, the success of behavioral science training has been mixed. Amos and Teter (3) report a possible but nonsignificant association between positive psychosocial attitudes and behaviors among family practice residents with patient satisfaction. Shapiro, in two separate studies, notes the difficulty

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residents have in mastering complex psychosocial skills (4) and concludes that a behavioral science rotation per se may be an inappropriate mechanism for the transmission of such skills (5).

Even less is known about what residency-trained family physicians actually do in terms of psychosocial assessment and intervention once they are out in practice. An early study by McLean and Miles (6) raised concerns about inconsistent and illogical applications of couples therapy with patients. A more recent study teaching family therapy skills to a motivated group of family physicians (7) met with similar results.

A study reported by Sawa et al (8) was more hopeful, reporting significant differences between family physicians trained in a family systems approach and those completing residencies that did not stress this approach. However, the items on the questionnaire used in this study tended to stress psychosocial assessment rather than intervention. Other authors (9) note a pervasive failure of family therapy training in family medicine. Still others comment more generally that family physicians in practice often find the experience of counseling patients frustrating, or exceeding their expertise (10).

Nevertheless, statistics continue to document large numbers of psychosocial problems associated with the patients of primary care physicians (11,12). Despite controversy about the extent to which patients wish to confide in their physicians (13-15), it is also the case that often patients are more inclined to discuss emotional concerns first with their family doctor than with a psychologist or psychiatrist (16).

Persistent questions regarding the effectiveness and relevance of behavioral science training resulted in initiation of this exploratory study, addressing the following research questions. Is behavioral science training useful to family physicians in practice? What differentiates physicians who are high utilizers of psychosocial behaviors in their practices (and who perceive themselves as psychosocially competent in patient care) from those who are low utilizers and who perceive themselves as generally less psychosocially competent? For the purpose of this study, psychosocial behaviors referred to a range of physician-patient interactions, including obtaining a psychosocial history; attention to patient verbal and nonverbal affective cues; active listening skills; and basic assessment, diagnostic, management, and referral skills in such areas of common psychological dysfunction as depression, anxiety, marital, and family problems. Psychosocial competence referred to physician self-evaluation in terms of ability to execute a specific psychosocial behavior on a 5-point Likert-type scale from "poor" to "excellent."

Specific hypotheses were also generated.

1. Frequency of psychosocial behavior and perceived psychosocial competence would be positively correlated, on the assumption that physicians who felt a high level of skill mastery would be more likely to utilize these skills.

2. Higher frequency of psychosocial behavior and higher perceived psychosocial competence would be negatively correlated with number of patients and positively correlated with amount of experience (length of practice). We assumed that lower patient volume would provide an environmental opportunity for more in-depth psychosocial assessment and brief counseling while experience in the real world of medical practice would convince previously recalcitrant residents of the importance of a biopsychosocial approach.
3. Psychosocial behavior and competence would also be positively associated with type of practice (private or group vs HMO) and with physician gender. The first component of this hypothesis was based on the reasoning that physicians with greater control of their practices (ie, in a private group setting) would have more latitude to incorporate psychosocial dimensions of patient care than those in the more bureaucratically structured atmosphere of an HMO. Regarding the second assertion, research evidence supports the contention that in certain psychosocial domains female physicians-in-training tend to outperform males (4,17).
4. Physician psychosocial behavior and perceived competence would be positively correlated with a global assessment of their residency behavioral science training, and with a more detailed measure evaluating behavioral science training that considered residents' assessment of specific components of the behavioral science program.
5. Finally, physician self-evaluations of psychosocial competency would be correlated with independent evaluations of psychosocial performance made by behavioral science faculty during their residency training.

METHODS

The 60 family physicians represented all residency program graduates for the period 1984-1988. These graduates were mailed a numerically coded questionnaire with a personal letter from the first author, which invited them to participate in the study and guaranteed anonymity (limited by the fact that the respondents would be personally known to the investigator) and confidentiality. Six weeks after the original mailing, a follow-up mailing went out to all nonrespondents with another copy of the survey, a stamped self-addressed return envelope, and a personal cover letter encouraging response. Thirty surveys were returned, yielding a response rate of 50%. Of the 30 nonrespondents, we were unable to locate a correct mailing address for 7, and 3 returned questionnaires indicating they did not wish to participate. Nonrespondents were distributed fairly randomly by year of graduation. According to psychosocial performance evaluations made by behavioral science faculty during residency training, there were no significant differences between respondents and nonrespondents ($p = 0.55$). Sixty percent of female graduates ($n = 12$) and 45% of male graduates ($n = 18$) returned surveys.

The 4-page questionnaire gathered respondents' demographic data including age; sex; type of practice (HMO, clinic, individual, or group); number of patients seen daily; number of psychological referrals made per month; psychological screening practices; and whether or not they engaged in home visits. Next, the questionnaire assessed respondent satisfaction with psychosocial training during residency through a single-question summative evaluation as well as a 22-item formative evaluation. Both of these rated training on a 5-point scale (poor-excellent). The questionnaire also determined whether respondents had undertaken postgraduate training in any psychosocial areas. The remainder of the questionnaire asked respondents to rate how frequently they engaged with patients in a 25-item list of psychosocial behaviors ranging from basic skills such as taking a psychosocial history to more complex skills such as patient counseling, and their self-perceived level of competence in 17 of these areas. The questionnaire was pilot-tested on 3 current faculty in the department, and changes were made to improve clarity and conciseness. Time required to complete the questionnaire was approximately 20 minutes.

Four scales were constructed statistically post hoc using Cronbach's alpha (18). The authors identified 4 potential scales based on the face validity of the constructs of frequency, competency, quality of training, and psychosocial screening. To investigate the reliability of the scales, an internal consistency method of estimating reliability was employed. Cronbach's coefficient alpha was used for this purpose. Like other coefficients, alpha varies from 0 to 1.0; the closer to 1, the higher the reliability. The higher the magnitude, the more the scale is said to measure an underlying construct or latent variable, such as competency or frequency. The coefficient alpha is a function of the average inter-item correlation and the total number of items. Coefficient alpha is used more frequently to measure internal reliability than other methods of estimation (test-retest, split-half) because it is a more conservative measure (19).

The resulting four scales were as follows:

1. **COMPETENCY** was assessed on a 17-item scale with a Cronbach's alpha of 0.94. This scale measured physicians' assessment of their own competency in performing various psychosocial functions (psychosocial interviewing, dealing with difficult patients, addressing alcoholism and substance abuse, brief counseling skills, etc). **COMPETENCY** was measured on a Likert-type scale ranging from 1 (poor) to 5 (excellent). In terms of scoring, the theoretical range of the scale was 17 to 85, and the actual range of respondents was 55 to 82. The group mean was 67.1 ($s = 8.5$), or the equivalent of 2.6 on the Likert-type scale.

To further confirm the validity of the **COMPETENCY** scale, we compared respondents' self-ratings on this scale to global assessments of psychosocial competency made by behavioral science faculty during the respondents' residency training. These ratings were made on a Likert-type scale of 1-5 (poor to

excellent) and represented a global performance score averaged from a 46-item checklist on which the resident had been rated on at least 3 separate occasions during the course of a year. Analysis showed that these self and expert scores were moderately correlated ($r = 0.42$, $p = 0.08$), a finding that approached but did not achieve significance.

2. **FREQUENCY** was assessed using a scale comprised of 25 items, with an alpha reliability of 0.89. This scale measured the self-reported frequency with which physicians engaged in various psychosocial behaviors. These items ranged from "Talking to patients about what their illness means to their lives" and "Working with difficult patients" to "Doing brief, supportive counseling," "Counseling geriatric patients," and "Counseling depressed/suicidal patients." Because of the apparent dichotomy among family practice residents between relative mastery of psychosocial assessment skills compared with relative lack of mastery of psychosocial intervention skills, this checklist consciously focused primarily on intervention-oriented behaviors. **FREQUENCY** was assessed on a Likert-type scale ranging from 0 (not at all) to 3 (frequently). On this scale with a theoretical summative range of 0-81, the group mean was 38.6 ($s = 15.7$), (the equivalent of 1.5 on the Likert-type scale), with an actual range of 1-60.

3. **FORMATIVE EVALUATION** consisted of a 22-item scale with an alpha reliability of 0.92 that assessed physicians' evaluations of the quality of their behavioral science training during residency. Items included questions regarding the quality of training in such areas as anxiety, depression, geriatrics, substance abuse, sexual dysfunction, child abuse, patient education, etc, and in general reflected items contained in both the **COMPETENCY** and **FREQUENCY** scales. On a summative scale with a theoretical low of 22 and a high of 110, the mean score was 77.9 ($s = 12.2$), with an actual range of 61-110. This translates on a 5 point Likert-type scale as a range of 2.8-5.0, with a mean of 3.5.

4. **SCREENING** was measured using a 4-item scale, with an alpha of 0.66, that asked about frequency of screening for alcohol consumption, smoking, family problems, and sexual problems.

RESULTS

Respondents' average age was 34.8 years, with a range of 30-43 years. Their average length of time in practice was 3.8 years, with a range of 1-5 years. Six respondents worked for HMOs, 10 were in group practice, 9 were in solo practice, 4 were associated with community clinics, and 1 did not specify type of practice. The number of patients seen daily averaged 21.3, with a range of 10-35 patients. Slightly more than half the respondents (58.6%) reported

Table 1. The Most Common Psychosocial Problems Seen in Practice

Problem	Mean	s	Rank*
Stress	1.759	1.154	1
Depression	2.286	1.171	2
Anxiety	2.357	1.096	3
Marital Problems	5.250	1.185	4
Substance Abuse	4.731	1.185	5
Parenting Problems	5.250	0.847	6

*Lowest rank represents the most common problem.

receiving no additional postdegree training in the behavioral sciences, with the rest noting some postresidency behavioral science training. They identified the three most common psychological problems in their practices as stress, depression, and anxiety (Table 1). They made an average of 6.4 psychological referrals per month, but with a range of 1 to 30. Exactly 50% of the sample reported making home visits, with 27.3% reporting weekly, and the remainder monthly, visits.

Table 2. Percentage of Respondents Rating Their Psychosocial Training

Psychosocial Training	Respondent Rating of Training				
	1	2	3	4	5
	Poor	Fair	Adequate	Good	Excellent
Psychosocial Interviewing	0	0	24.1	58.6	17.2
Doctor-Patient Relationship	0	0	34.5	37.9	27.6
Dealing with Chronic Illness	0	6.9	41.4	37.9	13.8
Managing Difficult Patients	0	10.3	44.8	27.6	17.2
Stress Management Techniques	0	10.7	28.6	50.0	10.7
Family Counseling	0	13.8	27.6	34.5	24.1
Brief Counseling	0	13.8	41.4	27.6	17.2
Behavior Therapy	3.4	24.1	34.5	34.5	3.4
Sexual Counseling	0	44.8	27.6	20.1	6.9
Anxiety	0	0	34.5	58.6	6.9
Death and Dying	0	3.4	41.4	44.8	10.3
Depression	0	10.3	20.7	51.7	17.2
Suicidal Ideation	0	10.3	20.7	55.2	10.3
Drug and Alcohol Abuse	3.4	13.8	20.7	37.9	24.1
Child Abuse	0	17.2	37.9	34.5	10.3
Geriatric Patients	0	17.2	27.6	37.9	17.2
Obesity	3.4	24.1	44.6	24.1	3.4
Eating Disorders	3.4	34.5	41.4	17.2	3.4
Patient Education	0	6.9	31.0	41.4	20.7
Psychological Referrals	0	6.9	37.9	34.5	20.7
Time Management	0	17.9	42.9	28.6	10.7
Home Visits	3.6	28.6	28.6	28.6	10.7

In terms of training (Table 2), subjects felt relatively well trained (adequate to excellent ratings) in terms of psychosocial interviewing, the doctor-patient relationship, dealing with chronic illnesses, managing difficult patients, basic counseling techniques, patient education, psychological referrals, and common psychological diagnosis.

Over 80% of the physicians sampled regularly engaged in psychosocial interviewing and communication skills, used brief supportive counseling and behavioral counseling skills, used time management skills, engaged in patient education, and made psychological referrals. Over 80% reported dealing with difficult patients in their practices and treating patients with anxiety, drug and alcohol abuse, obesity, and dying patients. To a somewhat lesser extent, respondents reported doing geriatric counseling; managing depressed patients; dealing with sexual problems; and dealing with child abuse, elder abuse, and eating disorders (Table 3).

Regarding self-perceived competency, 96.2% of physicians surveyed rated their psychosocial interviewing skills as adequate to excellent, with 73.1% in

Table 3. Frequency with Which Respondents Engaged in Psychosocial Behaviors

Specific Psychosocial Behavior	N	Percent Reporting Behavior		
		Daily	Weekly	Monthly
Psychosocial Interviewing	22	50.0	45.5	4.5
Communication Skills	27	44.4	40.7	14.8
Supportive Counseling	25	32.0	52.0	16.0
Behavioral Counseling	21	14.3	42.9	42.9
Stress Management	23	17.4	47.8	39.8
Time Management	21	61.9	23.8	14.3
Patient Education	26	80.8	15.4	3.8
Prescribing Antidepressants	25	12.0	44.0	44.0
Prescribing Anxiolytic Medications	25	12.0	44.0	44.0
Psychological Referrals	27	7.4	63.0	29.6
Dealing with Difficult Patients	25	44.0	48.0	8.0
Counseling Patients with Anxiety	25	28.0	52.0	20.0
Counseling Drug Abuse/Alcohol Abuse Pts.	26	15.4	57.7	26.9
Treating Obesity	24	16.7	70.8	12.5
Counseling Dying Patients	21	9.5	19.0	71.4
Counseling Depressed Patients	21	9.5	28.6	61.9
Making Home Visits	11	0	27.3	72.7
Dealing with Sexual Problems	17	11.8	5.9	82.4
Dealing with Child Abuse	11	0	18.2	81.8
Dealing with Elder Abuse	11	0	9.1	90.9
Counseling Geriatric Patients	22	3.0	15.1	55.0
Counseling Eating Disorder Patients	14	0	28.6	71.4
Family Therapy	12	8.3	50.0	41.7
Bibliotherapy	6	0	33.3	66.7
Specific Times for Counseling	9	0	33.3	66.7

Table 4. Self-Perceived Competency of Respondents on a Range of Psychosocial Behaviors

Psychosocial Training	Percentage of Physicians Responding				
	1 Poor	2 Fair	3 Adequate	4 Good	5 Excellent
Psychosocial Interviewing	0	3.8	23.1	50.0	23.1
Patient Communication Skills	0	3.6	28.6	53.6	14.3
Alcohol and Substance Abuse	0	7.4	40.7	37.0	14.8
Death and Dying	0	8.3	37.5	33.3	20.8
Supportive Counseling	0	0	18.5	48.1	33.3
Family Counseling	0	5.9	52.9	23.5	17.6
Behavioral Counseling	0	9.1	54.5	22.7	13.6
Depressed Patients	0	4.5	36.4	45.5	19.2
Stress Management	0	8.3	58.3	25.0	8.3
Geriatric Counseling	0	4.5	27.3	54.5	13.6
Obesity Management	0	0	44.0	36.0	20.0
Time Management	0	8.7	39.1	34.8	17.4
Patient Education	0	0	19.2	46.2	34.6
Psychological Referrals	0	0	33.3	44.4	22.2
Home Visits	0	7.1	28.6	28.6	35.7
Difficult Patients	0	14.8	44.4	33.3	7.4

the good/excellent range. In a few areas (sexual abuse, elder abuse, eating disorders, difficult patients), a somewhat lower number of respondents felt their psychosocial skills to be adequate or better (Table 4).

In terms of the SCREENING measure, Kendall's Tau was used to assess the degree of association or correlation between 2 sets of ranks, in this case paired combinations of the 4 screening items. Analysis showed that physicians who tended to ask about one area tended to ask about all four. This relationship was strongest for smoking and alcohol, and weakest for smoking and sexual problems (Table 5).

SCREENING was also related to TYPE OF PRACTICE ($t = 2.20$, 2-tail $p = 0.04$). Analysis of variance so indicated that physicians in HMOs and

Table 5. Relationship Between Physicians Asking Five Psychosocial Screening Items

	Kendalls' Tau B	P
Alcohol/Smoking	.60	.0006
Alcohol/Family	.50	.002
Alcohol/Sexual Problems	.33	.03
Smoking/Family	.37	.02
Smoking/Sexual Problems	.20	N.S.
Family/Sexual Problems	.42	.006

clinics were *more* likely to screen patients than were physicians in solo or group practices ($F = 3.16$, $df = 3$, $p = 0.04$).

The FREQUENCY and COMPETENCY scales were not correlated, contrary to our original hypothesis.

Physicians' self-perceived COMPETENCY in executing a range of psychosocial behaviors with patients was related only to FORMATIVE EVALUATION ($r = 0.69$, $p = 0.000$) and SCREENING ($r = 0.51$, $p = 0.006$). Residents who evaluated specific aspects of behavioral science training most highly and who routinely engaged in screening behaviors also tended to evaluate their own psychosocial competency most positively. Contrary to our original hypotheses, perceived physician psychosocial COMPETENCY was not correlated with age or experience of physician, postresidency training, type of practice or patient volume, frequency of engaging in psychosocial behaviors, or tendency to make counseling referrals. Physicians rated themselves as significantly less psychologically competent when compared to ratings they had received during residency training ($t = -2.62$; $df = 19$, $p = 0.02$).

The FREQUENCY with which physicians attempted psychosocial behaviors with patients was related to the SUMMATIVE EVALUATION of their behavioral science training during residency (a single-item Likert-type rating of training; $r = 0.65$, $p = 0.000$) and their EXPERIENCE (length of time in practice) ($r = 0.52$, $p = 0.005$). Thus, physicians who exhibited a high level of psychosocial behaviors tended to rate their behavioral science training globally as strong and also tended to have been in practice longer than those physicians with a lower level of psychosocial behaviors.

Again, contrary to our initial hypotheses, there was no relation between FREQUENCY and the other independent variables of age, training, formative evaluation of residency training, type of practice, or patient volume. There was also no relationship between FORMATIVE and SUMMATIVE EVALUATIONS of behavioral science training. Physician gender was not related to any of the dependent variables.

DISCUSSION

In this exploratory study, psychosocial performance in practice was most strongly related to behavioral science training during residency. This substantiates a finding of Cassata in a study completed a decade ago (20). In a somewhat differently designed study, a paper by A. Comelli presented at the Fifth Annual Central California Research Symposium (April 1984) found that only one-third of his respondents reported a correlation between physician perceptions of training adequacy and their use of psychosocial interventions. Comelli speculated that this discrepancy might be explained by a consideration of post-

graduate psychosocial training. However, in the present study, participating in postgraduate psychosocial training was not significantly related to increased frequency or competency in psychosocial performance.

It is possible that respondents' psychosocial competency also decayed somewhat over time. This speculation is based on the findings that behavioral science faculty rated subjects significantly higher on psychosocial performance during residency than subjects rated themselves during practice. However, because of differences in the two rating instruments, and because ratings were made in one case by outside observers and, in the other, by self, many other explanations for this discrepancy are possible.

Somewhat surprisingly, at least in this small sample, psychosocial performance in practice was not related to patient volume, type of practice (with the exception of SCREENING), postgraduate training, or gender. While conventional wisdom often argues that physicians functioning in a managed health care system will be less likely to attend to psychosocial aspects of patient care, this did not appear to be true with this particular sample. In fact, HMO physicians actually engaged *more* frequently in psychosocial screening, suggesting an awareness of its cost-effective potential. Similarly, patient volume is often blamed for the inability of physicians to apply a biopsychosocial model with their patients. However, patient volume did not differentiate physicians on any of the dependent variables.

While gender has previously been associated with greater mastery of certain psychosocial dimensions, these findings have not been exceptionally robust. The lack of significance in the present study may reflect small sample size, the impact of improved training, changing social mores, or a combination of all three.

Also violating an initial hypothesis was the lack of relationship between FREQUENCY and COMPETENCY scales in this study. It appears in these results that some physicians who feel competent psychosocially report a fairly low frequency of psychosocial behaviors, while other physicians frequently engage in such behaviors but do not necessarily feel more competent in their execution than physicians who engage in such behaviors less frequently. Further research needs to ascertain potential mediating variables between the constructs of frequency and competency, such as opportunity or necessity.

Our study also confirmed that FREQUENCY of psychosocial behaviors among residency-trained physicians did not increase with age per se, but did increase with length of time in practice, or EXPERIENCE. Since FREQUENCY was not directly related to postgraduate TRAINING, it is likely that the value of EXPERIENCE is derived less from formal training as such, and more from the practical benefits of patient contact (21,22).

Although there is cause for some self-congratulation in regard to behavioral science training in this study, there is also cause for concern. While in

most areas the majority of physicians rated their residency behavioral science training as adequate, many fewer evaluated this training as good or excellent (Table 2). For example, less than 50% of the sample rated their training as good/excellent in the following areas: home visits, obesity, eating disorders, child abuse, managing difficult patients, time management, sexual counseling, brief counseling, and behavioral counseling. In part, the authors recognize these as areas of programmatic difficulty in which training often did not achieve the goals we had established. However, excellence rather than adequacy appeared to be too rarely achieved, regardless of programmatic fluctuations.

While a wide range appropriately exists in terms of the extent to which family physicians engage in psychosocial interactions with patients, family medicine expects a certain baseline competency among all practitioners. With the exception of the 5 individuals who reported *never* engaging in psychosocial interactions, the majority of respondents felt they had achieved at least adequate mastery of a range of psychosocial skills. This competency was attributable, at least in part, to respondents' evaluation of the quality of their behavioral science training in residency. Inspection of individual responses indicates that graduates in certain years tended to rate behavioral science training more favorably than in other years. This may be the result of improved curriculum. However, it is also true that, within any given year, there was considerable variation in respondent evaluation of the behavioral science program. This suggests the uncomfortable conclusion that behavioral science in part may be preaching to the converted: the best residents got the most out of their training and felt themselves to be more competent as practitioners. Behavioral science training must encourage all residents to adopt a true biopsychosocial model, and take special care to reach less psychosocially receptive or confident residents.

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