

## Residency Education

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# Understanding the Scope and Practice of Behavioral Medicine in Family Medicine

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**Background and Objectives:** *Family medicine integrates psychosocial factors (behavioral, psychological, cognitive, social, and cultural) into the comprehensive medical care of patients. Behavioral medicine is the discipline representing the contribution of the behavioral sciences to medicine and encompasses a broad field of knowledge and practice. This research explores the understanding of the scope and practice of behavioral medicine among academic family physicians. Methods:* Surveys were administered to physicians at nine family medicine residency programs in Florida. **Results:** *Study participants reported being trained in and using behavioral medicine techniques and consultants with patients. Behavioral medicine was valued as a collection of techniques for the prevention and treatment of physical and psychiatric illness. Physicians emphasized the utility of behavioral specialists' skills in conditions with strong psychological components compared to other chronic medical conditions. Behavioral medicine techniques were associated with traditional psychotherapeutic interventions and often provided by nonpsychiatric physicians. Many physicians categorized behavioral medicine as a type of complementary and alternative medicine. Conclusions:* Behavioral medicine is valued but not strongly identified as a distinct discipline, which might affect its use. This may explain why behavioral medicine skills were differentially valued for the prevention and treatment of psychiatric illness compared to medical illness.

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Family medicine integrates the psychosocial factors influencing health and illness (behavioral, psychological, cognitive, social, and cultural) with biomedical factors. The training of family physicians emphasizes the philosophy widely known as the “biopsychosocial” model of health care.<sup>1</sup>

Prior to the 1960s, the prevalent view of health and disease was reductionist, focusing on organs and organ systems.<sup>2</sup> By the 1970s, a more systematic and empirical evaluation of the interaction between behavior and

illness generated a movement to integrate behavioral techniques and conferred credibility on the mind-body relationship. This movement evolved into a discipline now referred to as “behavioral medicine.”

In 1977, behavioral medicine was defined as “the interdisciplinary field concerned with the development and integration of behavioral and biomedical science knowledge and techniques relevant to health and illness and the application of this knowledge and these techniques to prevention, diagnosis, treatment, and rehabilitation.”<sup>3,4</sup> A broader, and more current, definition comes from the charter of the International Society of Behavioral Medicine, which states that behavioral medicine is “the interdisciplinary field concerned with the development and integration of sociocultural, psychosocial, behavioral, and biomedical knowledge relevant to health and illness and the application of this knowledge to disease prevention, health promotion, etiology, diagnosis, treatment, and rehabilitation.”<sup>5</sup>

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Over 30 years, the emergence of several overlapping disciplines may have created “drift” in the definition of behavioral medicine. The medical specialty of psychiatry adopted the term, often using it as a synonym for its traditional focus on psychopathology. An increase in the promotion and use of therapeutic approaches in the realm of complementary and alternative medicine (CAM)—typically predicated on the interaction of biological, psychological, social, and spiritual influences on health—also involves behavioral approaches and expanded the boundaries of behavioral medicine.

Behavioral medicine by any definition encompasses a broad field of knowledge and practice; it is thus probable that family physicians have varying notions as to what constitutes behavioral medicine. The research reported here was designed to explore current knowledge among family medicine residents and faculty about the scope and practice of behavioral medicine. Additionally, we were interested in exploring the exposure to behavioral medicine training in family medicine residencies, family physicians’ use of behavioral medicine techniques, referral practices to behavioral medicine providers, and the perceived value and efficacy of behavioral medicine.

## Methods

We conducted a cross-sectional survey of family medicine residents and faculty at nine of the 14 family medicine residency programs in Florida. The nine

programs actively participated in the Florida Behavioral Health Research Consortium (FBHRC), a group for behavioral medicine faculty from Florida residency programs. The Consortium has maintained biannual meetings for professional support, sharing teaching strategies, and for research collaboration.

## Subjects and Setting

A description of the nine programs is shown in Table 1. All nine program practices are in community-based family health centers. All participating programs had at least one full-time behavioral medicine faculty member, offered residents didactic and experiential exposure to behavioral medicine interventions, and provided consultations to residents’ patients.

## Instrument

The survey instrument was developed by the FBHRC following discussions among Consortium members. The instrument was reviewed and pre-tested by the residency program directors at each of the participating residency programs. Their suggestions were incorporated into the final survey instrument.

The final instrument was a four-page self-administered questionnaire requiring approximately 5 minutes to complete. We elicited demographic information, including gender, professional designation, specialty, and year residency training was/would be completed.

Table 1

Characteristics of the Nine Participating Family Medicine Residency Programs

Program	Community Size (in thousands)	Family Physician Faculty	Behavioral Medicine Faculty	Residents (by Year)	Unique Behavioral Medicine Training*
1	923	10	1 psychologist	8/8/8	—
2	237	6.5	2 psychologists 2 social workers 4 counseling interns	8/9/9	Psychotherapy training (co-therapist with behavioral faculty, counseling supervision groups)
3	307	13	1 social worker	7/7/8	—
4	842	10	1 social worker	0/0/8	—
5	1,056	5	1 psychologist	8/8/8/2 (Two 4th-year residents)	1 week alcohol/drug detox/treatment rotation
6	842	10	1 psychologist	10/11/10	—
7	842	15	1 social worker	12/12/12	—
8 <sup>†</sup>	1,056	10	1 psychologist	16/16/16	—
9	496	7	1 psychologist	8/8/8	—

\* All programs provide didactic and experiential training in primary care mental health problems, stress management, life cycle, brief office counseling, health behavior change, etc. All programs adhere to ACGME and RRC guidelines for behavioral medicine curriculum although implement the curriculum in different ways. All share similar teaching strategies such as rotational experiences, precepting, participation in rounds, joint provision of patient care with residents, lecturing etc.

<sup>†</sup> Program #8 provides a 2-week complementary and alternative medicine rotation during residency training.

Using a 4-point scale, we asked about perceived efficacy of behavioral medicine interventions (0=“not useful,” 1=“marginally useful,” 2=“somewhat useful,” 3=“useful,” or 4=“very useful”), their cost effectiveness (0=“not cost effective,” 1=“marginally cost effective,” 2=“somewhat cost effective,” 3=“cost effective,” or 4=“very cost effective”), their research basis (0=“no benefit,” 1=“not as good,” 2=“equally rigorous,” 3=“slightly better,” or 4=“much better”), their importance (0=“not important,” 1=“marginally important,” 2=“somewhat important,” 3=“important,” 4=“very important”), and value (0=“not valued,” 1=“marginally valued,” 2=“somewhat valued,” 3=“valued,” 4=“very valued”).

Physician beliefs about the behavioral medicine profession were solicited in an open-ended question. This question asked physicians to identify the first words that came to mind in association with the term *behavioral medicine*. We also included six yes/no questions about scope of practice, a 33-item checklist about specific illnesses that might be amenable to behavioral therapies, and a 25-item checklist about types of therapies that fell within the realm of behavioral medicine. We also asked respondents to indicate how long they thought behavioral medicine had been practiced as a distinct discipline, with response options of “0–5 years,” “6–10 years,” “11–20 years,” “>20 years.”

Information about exposure to behavioral medicine in residency training was solicited by self-rated overall knowledge of behavioral medicine topics (0=“no knowledge,” 1=“marginal knowledge,” 2=“some/average knowledge,” 3=“good amount of knowledge,” or 4=“highly knowledgeable”) and exposure through journals (0=“no exposure,” 1=“marginal exposure,” 2=“some exposure,” 3=“lots of exposure,” or 4=“too much exposure”).

Finally, we solicited information on the provision of behavioral medicine techniques to patients (0=“never,” 1=“on rare occasions,” 2=“sometimes,” or 3=“often”) and referral to behavioral medicine specialists (0=“never,” 1=“on rare occasions,” 2=“sometimes,” or 3=“often”). We used an open-ended question to solicit information about the types of problems typically referred.

### Procedures

Human subject approval was obtained from a university Institutional Review Board prior to conducting the survey. Members of the FBHRC distributed the surveys between the months of January 2007 and March 2007 by handing out surveys at residency meetings, placing them in resident and faculty mail boxes, and giving them directly to eligible physicians. Anonymity was maintained by not including identifiers on the survey.

### Data Analysis

The survey data were analyzed using SAS statistical computer package for Windows. Descriptive statistics were used to explore the distribution of responses to survey items. Chi-square analyses were used to explore any significant differences in responses between resident and faculty respondents.

### Results

Survey administration resulted in 210 completed surveys from 328 eligible respondents in the nine programs (64% response rate). Respondents consisted of 117 family medicine residents (41 first-year, 30 second-year, and 46 third-year residents), and 93 family physician faculty. The physicians included 170 who held an MD degree and 40 with a DO degree. Fifty-one percent of respondents were female and 49% male.

#### *Attitudes About Behavioral Medicine Interventions and Research*

Behavioral medicine interventions were believed to be “useful” or “very useful” (87.8%) and “cost-effective” or “very cost effective” (72.1%). In comparing behavioral medicine research to other medical research, 33.2% responded it was “not as good,” 61.8% responded it was “equally rigorous,” and 5% believed it was “slightly better” or “much better.”

Ninety percent of physicians felt that behavioral medicine knowledge and skills are “very important” or “important” to family medicine. The overall value of behavioral medicine knowledge and skills was positive, with more than 84% of faculty and 68% of residents reporting it was “valued” or “very valued.” There were no significant differences between resident and faculty respondents on the questions above.

#### *Beliefs About the Behavioral Medicine Profession and Scope of Practice*

A majority of physicians (69.8%) were aware that behavioral medicine has been practiced as a formal discipline for more than 20 years. In the open-ended question soliciting beliefs about the profession, 197 unique words/phrases were reported. The first three responses of each respondent were coded, and Table 2 shows the top 10 responses stratified by whether the answers were first, second, or third in the order in which they were identified. The most frequent responses were depression, counseling, psychology, psychiatry, and anxiety.

In response to the yes/no questions on scope of practice, almost all of the physicians believed behavioral medicine to be useful in the prevention and treatment of both psychiatric and medical illnesses (Figure 1). Behavioral medicine was seen as useful for people of all ages and cultural backgrounds.

Table 2

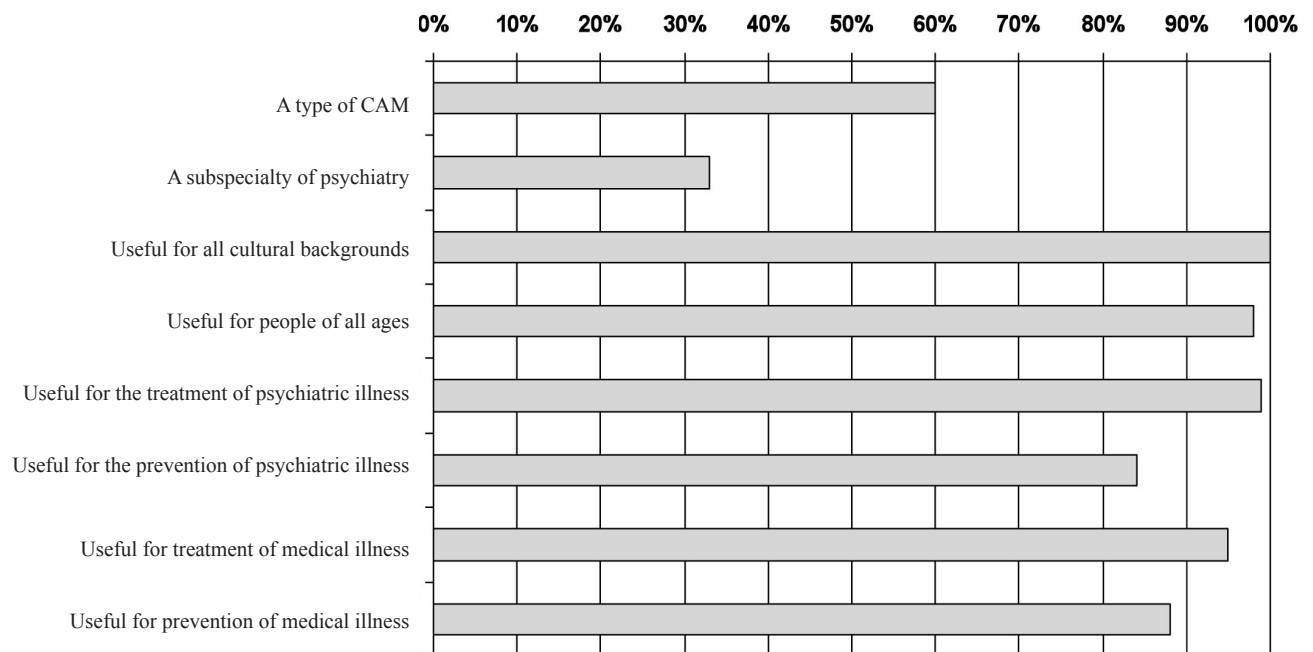
Responses to Open-ended Question “What Comes to Your Mind When You Hear the Term *Behavioral Medicine*?”

	First Choice (n=227)		Second Choice (n=228)		Third Choice (n=219)		Total % Over Three Choices n=674*
	n	%	n	%	n	%	
Depression	30	12.9	25	11.0	21	9.6	11.3
Psychiatry	30	12.9	8	3.5	4	1.8	6.2
Psychology	27	11.6	13	5.7	5	2.3	6.7
Counseling	26	11.6	23	10.1	6	2.7	8.2
Mental health	9	3.9	3	1.3	3	1.4	2.2
Anxiety	5	2.1	27	11.8	10	4.6	6.2
Therapy	5	2.1	6	2.6	7	3.2	2.7
Psychotherapy	4	1.7	2	.9	1	.5	1.0
Psychosocial	3	1.3	1	.4	2	.9	.9
Help/helpful	3	1.3	2	.9	1	.5	.9

\*The total number of responses to the first choice, second choice, and third choice were totaled (n=674), and this number was used as the denominator for the calculation of all percents in the last column. The number of responses to each item were summed over the three choices for the numerator for each item in the calculation of percents in the last column.

Figure 1

Physicians’ Beliefs About Behavioral Medicine’s Professional Category and Usefulness



CAM—complementary and alternative medicine

More variation was apparent in the beliefs about the boundaries of behavioral medicine in respect to other mind/body disciplines. Sixty percent of the physicians believed behavioral medicine was a type of CAM and 34% that it was the current label describing a specialty of psychiatry.

When considering specific illnesses (Table 3), more than 75% of physicians thought the skills of a behavioral specialist were useful for many psychological conditions (eg, alcoholism, attention-deficit disorder), but fewer than a third thought them useful for medical illnesses like diabetes, coronary artery disease, and hypertension.

From the list of 24 types of therapies that could fall within the realm of behavioral medicine, the most frequently checked items were behavior modification, stress management training, cognitive behavioral therapy, mental health counseling, psychotherapy, smoking cessation programs, interpersonal therapy, spiritual/religious counseling, psychoanalysis, and weight loss programs (Figure 2). Fewer than 25% believed that behavioral medicine interventions included approaches typically viewed as CAM therapies, including therapeutic touch, aromatherapy, massage, acupuncture, dietary supplements, osteopathic medicine, herbal therapies, traditional Chinese medicine, homeopathic medicine, ayurveda, Qi-gong, chiropractic, reiki, or naturopathic medicine. There were no significant differences between residents and faculty respondents in beliefs about therapies provided by behavioral medicine specialists or problems appropriate for treatment or referral.

### *Knowledge of and Exposure to Behavioral Medicine in Family Medicine Topics*

The majority of physicians (89.3%) rated their overall knowledge of behavioral medicine topics as "average" to "highly knowledgeable." Thirty-three percent reported "marginal" or "no exposure" to behavioral medicine in professional journals they read, 57% had "some exposure," and only 11% reported "lots of exposure." There were no significant differences between resident and faculty respondents on either of these items.

### *Behavioral Medicine Practice and Referrals*

Most physicians (82.5%) reported that they provide behavioral medicine interventions "sometimes" or "often" to their patients, while 17.5% rarely or never do. Most (82.4%) also referred patients to a behavioral medicine specialist "sometimes" or "often;" 15% reported that they "never" or "on rare occasions" referred patients to a behavior medicine specialist. Faculty physicians were more likely to refer patients to a behavioral medicine specialist "sometimes" or "often" (92.3%) than resident physicians (78.5%) ( $P=.0337$ ).

The problems for which these physicians typically refer patients to a behavioral specialist were generated in an open-ended format. We included the first three words/phrases of 68 unique responses. The 10 most frequent responses were depression, anxiety, bipolar disorder, stress or stress management, adjustment disorder, family problems or family therapy, grief and bereavement, attention-deficit disorder, eating disorders, and pain.

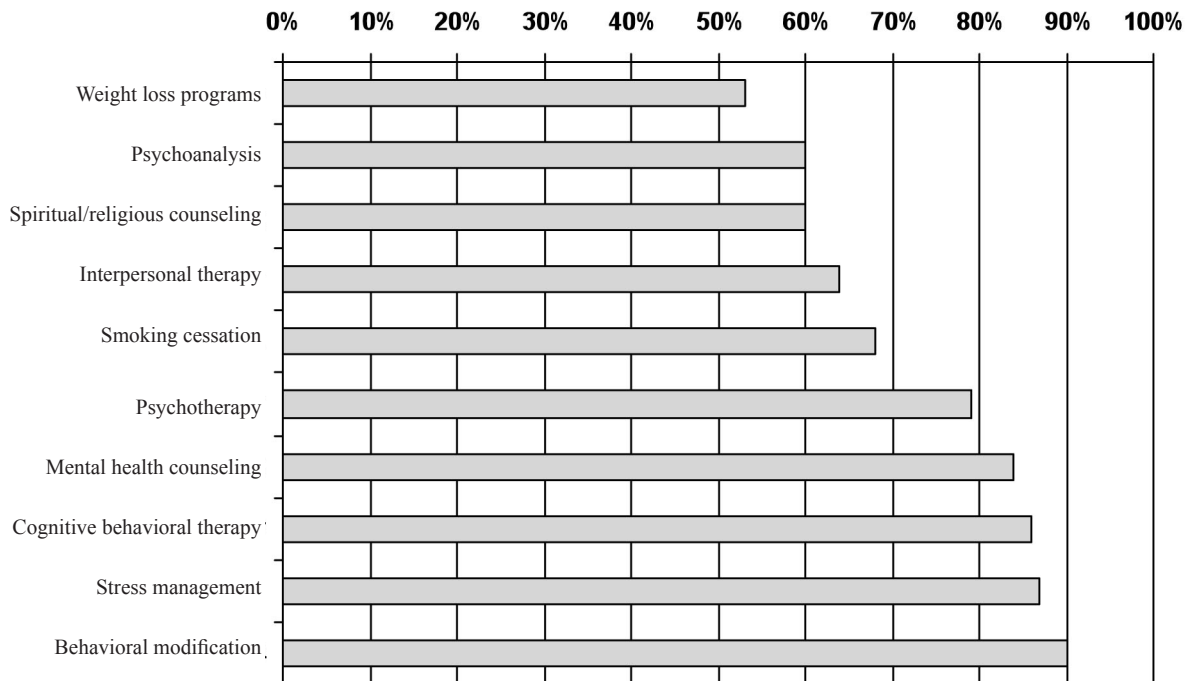
Table 3

Medical Complaints for Which the Skills of a Behavioral Medicine Specialist Could Be Useful (n=210)

<i>Complaint</i>	<i>%</i>	<i>Complaint</i>	<i>%</i>
Alcoholism	93.3	Fibromyalgia	71.0
Family problems	92.4	Sleep disorder	70.5
Grief and loss	92.4	Cancer	61.0
Stress	91.4	HIV/AIDS	58.6
Psychiatric disorders	88.6	Physical inactivity	48.1
Violence and abuse	85.7	Menopausal symptoms	43.3
Somatoform disorders	82.9	Malnutrition	39.5
Attention-deficit disorder	82.4	Diabetes	31.4
Sexual problems	82.4	Coronary artery disease	29.5
Parenting problems	81.4	Pregnancy complications	28.6
Developmental problems	80.5	Hypertension	25.7
Patient adherence/compliance problems	75.7	Asthma	23.3
Pain (all causes)	74.8	Surgical complications	17.1
Chronic illness	74.8	Low immune response	17.1
Smoking	74.3	Hyperlipidemia	13.3
Obesity	71.9		

Figure 2

Percent of Physicians Considering Specific Treatments to Be Behavioral Medicine Interventions\*



\* Fourteen items from this question were not included in the figure because they received less than 25% of responses, including therapeutic touch, aromatherapy, massage, acupuncture, dietary supplements, osteopathic medicine, herbal therapies, traditional Chinese medicine, homeopathic medicine, ayurveda, Qi-gong, chiropractic, reiki, and naturopathic medicine.

## Discussion

Behavioral medicine has had a long history, but recent developments may have blurred the boundaries of behavioral medicine or caused a “drift” in the meaning of the term. The current study sought to identify family physicians’ understanding and use of behavioral medicine.

### Main Findings and Relevance

Despite our concern of a drift in the meaning of the term *behavioral medicine*, the present study indicates that, for the group of physicians studied, the understanding of the term *behavioral medicine* is generally consistent with the most common definitions of the discipline.<sup>5-7</sup> Further, most of the physicians reported that behavioral medicine techniques are used for the prevention and treatment of physical and psychiatric illnesses. Physicians reported to possess an “average to good” amount of knowledge of behavioral medicine and judged behavioral medicine techniques to be cost-effective and scientifically valid.

Behavioral medicine was believed to be practiced by nonpsychiatric professionals, and about 80% of the family physicians in our study reported that they “sometimes” or “often” provide these interventions in their practice. A similar number referred their patients to behavioral medicine specialists. Astin et al note that attitudes toward these approaches are associated with medical students’ and physicians’ perceptions of how effectively they were trained in them—it may be that the extensive behavioral medicine training found in family medicine residencies prompts family physicians to have positive attitudes toward behavioral medicine and feel competent in using behavioral techniques.<sup>8</sup>

While most respondents defined behavioral medicine in standard terms, our study nonetheless presents evidence that there may be some blurring of the boundaries of behavioral medicine. While the various techniques used in behavioral medicine were those associated with traditional psychotherapeutic fields, and specific non-traditional techniques (such as acupuncture or massage therapy) were not considered part of behavioral medicine, in a seeming contradiction more than half of the

physicians believed that behavioral medicine is part of CAM. This seeming paradox is difficult to understand. It is possible that with a large number of interventions subsumed under the category of CAM, physicians may see the behavioral aspects of some CAM interventions as part of behavioral medicine.

In contrast to a previous study of a broader group of physicians (family, internal medicine, pediatric, obstetrics, and others),<sup>9</sup> the physicians in our survey perceived behavioral medicine interventions as useful for a wide variety of conditions. However, when identifying specific conditions for which the skills of a behavioral specialist could be useful, most rated the skills especially useful for conditions with a clear psychological component (alcoholism or attention-deficit disorder), but fewer than one third thought that behavioral specialists' skills were useful for diabetes, coronary artery disease, and hypertension—all of which have a strong behavioral component. While a large majority of the physicians felt knowledgeable about behavioral medicine topics in general, it is conceivable that they may not be as knowledgeable about the evidence for the benefits of behavioral techniques for specific chronic medical conditions or may have marginalized their benefits relative to biomedical treatments due to the association of behavioral medicine with CAM. Finally, psychiatry's use of the term *behavioral medicine* and its emphasis on treatment of psychopathology versus biomedical conditions may influence its perceived value for non-psychiatric medical illnesses. These inconsistencies should be explored in future research.

### Limitations

There are two key limitations of our study methods that should be considered when interpreting the results. First, respondents to this study were a subset of family physicians and residents in residency programs in one state, thus limiting generalization of results. Second, the survey instrument has unknown reliability and validity.

### Conclusions

The current report indicates that behavioral medicine is valued and used by family physicians and that there has not been a drift away from the original meaning

of the term. However there has been blurring of the boundaries of the definition of behavioral medicine, in that some respondents considered it part of CAM. Despite evidence that many medical conditions treated in primary care—such as asthma, diabetes, heart disease, and hyperlipidemia—have a strong behavioral component, fewer physicians in this study believed behavioral medicine is useful in the prevention and treatment of those illness compared to its usefulness for psychiatric illnesses.<sup>10-12</sup>

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