

Historical perspective on behavioral medicine's success in bringing different disciplines to the table

Kenneth A. Wallston¹ 

Received: June 19, 2018 / Accepted: October 4, 2018 / Published online: March 1, 2019
© Springer Science+Business Media, LLC, part of Springer Nature 2018

Abstract This article presents the author's perspective on the success of the field of behavioral medicine in recruiting, involving, and retaining upwards of 17 different professional disciplines over the 40 years of its existence. Acknowledging that health psychologists have historically dominated this interdisciplinary field, the author presents some possible solutions to increasing the viability and visibility of the other disciplines in carrying out the mission of behavioral medicine.

Keywords History · Professional disciplines · Diversity

Where have all the doctors gone?

When the field of Behavioral Medicine began in the late 1970s, it was conceived of as an endeavor where scientists and practitioners from a number of different professional disciplines (foremost among them medicine, nursing, public health and health psychology) would collaborate on research and the delivery of health care. Those four disciplines were not the only ones that the organizers of this new field felt would be involved. In addition, it was expected that medical anthropologists and sociologists, epidemiologists, biostatisticians, exercise physiologists, endocrinologists, immunologists, neuroanatomists, nutritionists and dieticians, psychiatrists, physical and occupational therapists, clinical social workers, and rehabilitation and preventive medicine specialists would all participate in

this integration of knowledge from the biological and social sciences relevant to health and illness.

It is important that you know something of my own background to judge where I am coming from in this historical treatise on behavioral medicine as a multidisciplinary field. I received my Ph.D. in social psychology in the late 1960s. Upon completing my dissertation in 1968, I was offered an opportunity to become a research associate at the University of Wisconsin in Madison working with Howard Leventhal, one of the pioneers in what was to be called health psychology 10 years later. I was also employed by the School of Nursing at UW-Madison for the purpose of assisting the nursing faculty to conduct research. The field of nursing research was just beginning to come into its own, and a number of schools of nursing were employing Ph.D. researchers from related fields such as psychology, sociology, and physiology to assist nurses with masters' degrees or, perhaps, EdDs, to conduct clinical research. My Nursing Dean at that time was Helen Bunge, the first editor of the journal, *Nursing Research*. When I started at Wisconsin I knew virtually nothing about nursing and very little about health care, but I had the good fortune to be taken under the wing of Jean Johnson, MSN, RN, who was working on her Ph.D. in social psychology under Leventhal's direction but was also the Principal Investigator of her own research grant that was housed in the School of Nursing. Upon earning her Ph.D. in psychology, Jean went on to become one of the leading nurse researchers in the country, responsible for training dozens of nurses to conduct first-rate nursing research, but her first, albeit informal, trainee was this 'wet behind the ears' social psychologist who, serendipitously, was being introduced to health psychology and behavioral medicine when neither field was even named.

✉ Kenneth A. Wallston
ken.wallston@vanderbilt.edu

¹ Vanderbilt University Medical Center, Nashville, TN, USA

I was fortunate to be among those who got in on the ground floor of the founding of both health psychology and behavioral medicine in the late 1970s when they started. That history is described elsewhere in this Special Issue (see Weiss & Schwartz, 2018). Over the ensuing 40 years, I have been an active health researcher. People sometimes ask me, “When you do research, are you acting as a health psychologist or are you engaged in behavioral medicine?” My response has always been, “When I am doing my own thing or working only with other psychologists, I am acting as a health psychologist, but when I am collaborating with at least one other co-investigator who is a physician, a nurse, or someone who identifies with one of the other disciplines under the behavioral medicine umbrella, I am conducting behavioral medicine research.” That is because behavioral medicine is an interdisciplinary focus of research (and practice) contributed to by many disciplines, while psychology is a single discipline that is often (but not always) a participant in this interdisciplinary focus.

For a variety of reasons, it is very difficult to come up with hard data with which we can evaluate to what extent the field of behavioral medicine has managed to attract and to keep the diversity of health-related scientists and professionals that were part of the original plan. Even in the United States where this new field began, there is no registry of persons who identify closely with this interdisciplinary field with the possible exception of the membership of the Society of Behavioral Medicine, the multidisciplinary, non-profit organization founded in 1978 which, according to its website (www.SBM.org), “provides the many disciplines represented with an interactive network for education and collaboration on common research; and clinical and public policy concerns related to prevention, diagnosis and treatment, rehabilitation, and health promotion.”

One thing has always been true; health psychology is the dominant discipline behind behavioral medicine as a field and SBM as an organization. Unfortunately, I have been unable to locate reliable data regarding SBM’s membership for the first 18 years of its existence. However, thanks to Marc Gellman, SBM’s unofficial historian, and Andrew Schmidt, a current SBM staff member, I have been able to tabulate SBM’s membership from 1996 to 2018 according to renewing members’ self-identified primary professional disciplines at the time they paid their annual dues. As can be seen in Table 1, there are a number of trends that stand out. Foremost among these trends is the fact that the percentage of SBM members who self-identify as psychologists has been steadily going down, from a median of ~ 57% in the first six columns of Table 1 (spanning 1996–2006) to a median of ~ 44% in the last six columns of the table (from 2008 to the present). In fact, for the first time, in 2018 the percentage of psychologists in SBM is

less than 40 percent among those members who identified a primary discipline.

Secondly, as can be seen in the next to last row in Table 1, the percentage of SBM members who do not identify a specific discipline but, instead, are classified as “students/trainees/or other” has grown to about 40%. Undoubtedly, a good percentage of those who are unclassified are probably psychology students, but since they did not specify a discipline, we don’t know that for certain. Third, the percentage of SBM members who identify as a “public health professional” has steadily grown to where public health is the second largest self-identified discipline in the organization at this time. Fourth, with the exception of medicine, the percentage of most of the other professions, including nursing, has stayed steady over the 22-year period covered in Table 1, although in most instances, such as anthropologists and sociologists, the number is disappointingly small. Finally, however, in my opinion the most important trend has been the percentage of physicians (MDs) who are members of the Society of Behavioral Medicine; it has steadily decreased from a high of 7% in 1996 to a low of 2% in 2018. If this trend continues I am afraid it will presage an increasing diminution of the ability of behavioral medicine to have an influence on the broader field of medicine itself.

At the same time that we see that MDs constitute an ever-decreasing percentage of SBM’s general membership, we can look to two other data sources to see the extent of medicine’s influence on the field of behavioral medicine. One place to look is SBM’s list of Fellows, those members judged by their peers in the organization to be among the leaders of the field. Currently, SBM lists a total of 303 Fellows on their webpage. Of those, 17 (or 5.6%) are MDs, from which we can infer that physicians who have been long-time members of the Society are likely to have been nominated for Fellow status in pretty close proportion to their historical membership in that organization. A somewhat different picture, however, emerges when we look to a separate entity, the Academy of Behavioral Medicine Research, an “elite” organization started about the same time as SBM for the purpose of “providing a forum for established scientists and thought leaders working in the field of behavioral medicine, where cutting-edge ideas can be exchanged in an informal, yet scientifically charged atmosphere.” Unlike SBM, where the membership requirements are minimal, and students and practitioners are encouraged to join and participate, one only can become a member of ABMR by nomination of existing members and nominees must “hold the rank of associate professor or higher, or hold comparable rank, if not an academic.” Currently, there are 296 members of ABMR, 45 of whom (or 15%) are MDs. The vast majority of SBM

Table 1 Membership in the Society of Behavioral Medicine by year and professional discipline

	1996	1998	2000	2002	2005	2006	2008	2010	2012	2014	2016	2018
Psychologist (%)	52.0	57.3	58.2	61.4	58.5	57.1	55.8	51.4	46.4	43.5	43.1	39.2
Physician	7.0	4.8	4.0	3.8	3.2	3.4	2.9	2.9	2.5	2.2	2.4	2.0
Nurse	5.0	3.9	3.9	4.4	3.7	4.2	4.1	3.8	4.1	3.0	4.2	3.8
Epidemiologist	2.0	2.7	2.4	2.7	2.7	2.7	2.1	2.3	2.1	2.2	3.1	2.6
Health educator	3.0	2.1	2.2	3.6	3.4	3.3	3.9	3.1	3.1	2.6	4.2	2.3
Nutritionist/dietician	1.0	0.7	0.8	0.8	0.8	0.8	1.1	0.6	0.6	0.7	1.2	1.1
Sociologist		0.7	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.4
Statistician		0.5	0.4	0.6	0.6	0.8	0.8	0.6	0.5	0.6	0.5	0.5
Social worker		0.6	0.3	< 0.1	0.4	0.4	0.2	0.2	0.3	0.2	0.5	0.5
Public health professional					0.4	< 0.4	< 0.4	0.9	1.3	1.5	4.7	5.9
Physiologist		0.5	0.5	0.7	0.7	0.4	0.9	0.6	0.5	0.5	0.8	1.0
Anthropologist		0.2	0.2	0.2	0.2	0.2	< 0.1	0.1	0.3	0.2	0.1	0.2
Psychopharmacologist/pharmacist		0.4	0.2	0.0	0.0	0.0	0.0	< 0.1	0.0	0.0	< 0.1	< 0.1
Physical therapist		0.1	< 0.1	0.0	0.0	< 0.1	0.0	0.0	0.0	0.0	0.1	< 0.1
Health economist		< 0.1	< 0.1	< 0.2	0.0	0.0	0.0	0.0	< 0.1	0.2	0.2	< 0.1
Dentist		0.0	< 0.1	< 0.1	0.1	< 0.1	< 0.1	0.1	0.1	< 0.1	< 0.1	0.0
Geneticist		0.0	< 0.1	< 0.1	< 0.1	< 0.1	0.0	0.0	< 0.1	0.0	< 0.1	< 0.1
Trainee/student/other	30.0	25.9	26.0	25.0	24.7	26.0	27.3	33.4	38.1	42.0	35.7	40.3
Total number of members	2295	2210	2047	1933	1741	1869	1942	1940	2216	2209	2386	2342

Fellows and ABMR members, however, are health psychologists.

So far, this article reads as if the only country where behavioral medicine exists is the United States. This is, of course, a false impression. Although behavioral medicine had its beginning in the US 40 years ago, it has spread all over the world. The International Society of Behavioral Medicine is a federation of behavioral medicine organizations and societies (including SBM and ABMR from the US) located in China and Japan, Australia and New Zealand, and throughout Europe and Latin America. The last International Congress of Behavioral Medicine was held in Melbourne, Australia in December 2016, and had over 750 registered attendees representing 53 different countries. I have been unable to locate data on the professional disciplines of the members of these other behavioral medicine organizations in order to compare their situation to what we have in the United States, but I am fairly certain that health psychology is the most prominent discipline in each of ISBM's Member Societies.

So, if forced to evaluate the success to date of the field of behavioral medicine in attracting and retaining a diverse constituency of disciplines in addition to health psychologists, I would have to say that at least in the United States we have not been very successful. Not only is medicine grossly underrepresented, the fact that nurses make up less than 4% of SBM's members (and less than 2.5% of SBM Fellows or 2% of ABMR members) is difficult to comprehend given that much of nursing practice and nursing

research is behavioral medicine in action. If you don't believe that nursing science is squarely within the mainstream of behavioral medicine, take a look at the titles of some of the doctoral dissertations produced by nursing students at my institution over the past 10 years (see Table 2). According to the American Association of Colleges of Nursing Member Program Directory there are approximately 130 Ph.D. programs in nursing in the United States alone. Yet, there are relatively few nurse researchers in the United States who think of themselves as behavioral medicine researchers. Why is that, and what can be done to increase the number of medical doctors and nurse researchers who identify with behavioral medicine?

Co-opting the name “Behavioral Medicine”

Shortly after the founding of the field of behavioral medicine, Joe Matarazzo, the first President of the Division of Health Psychology (Division 38) of the American Psychological Association, proposed that instead of “using the terms *behavioral health*, *behavioral medicine*, and *health psychology* as synonyms,”...“we [should] use the term *behavioral medicine*” for that broad interdisciplinary field of scientific inquiry, education and practice which concerns itself with health and illness or related dysfunction (e.g., essential hypertension, cholesterolemia, stress disorders, addictive smoking, obesity, etc.)” (Matarazzo, 1980, p. 807). In addition, Matarazzo went on to specify that the

Table 2 A sampling of Ph.D. dissertation titles at Vanderbilt University's Doctoral Program in Nursing Science

The Effect of Social Influence on Nurses' Hand Hygiene Behavior
Factors Associated with Safe-Sex Behavioral Intention in People Living with HIV/AIDS
Adolescent Transition to Adulthood and the Role of Coping and Influencing Factors
Inflammatory Cytokines, Cachexia, and Symptoms in Patients with Head and Neck Cancer
Health-Related Stigma in Advanced Lung Cancer
Relationships among Maternal Stress and Immune Components of Mothers' Milk
Depression and Vitamin D in Pregnancy
Body Image, Disfigurement, Depressive Symptoms, and Neck-Related Functional Status in Patients with Head and Neck Cancer
Energy Expenditure and Substrate Utilization in Obese Individuals with Heart Failure
Analysis of Written Emotional Disclosure and Control Group Essay Organization in Breast Cancer Survivors with Stage II Lymphedema
Rape Trauma: A Study of Preferred Rape Disclosure Methods and Factors Influencing Psychological Outcomes in Rape Victims
Learned Helplessness and Depressive Symptoms in Patients Following Acute Myocardial Infarction
The Impact of Secondary Lymphedema After Head and Neck Cancer Treatment on Symptoms, Functional Status and Quality of Life
Use of the Theory of Planned Behavior to Assess Prostate Cancer Screening Intent Among African American Men
Cognitive Vulnerabilities, Negative Life Events and Depressive Symptoms in Young Adolescents
Women's Decisional Conflict, Anxiety, and Coping Strategies Following Diagnosis of Fetal Abnormality
Parental Perceptions of Body Weight in Toddlers and Preschool Children
Comorbidities and Health-Related Quality of Life After Lung Transplantation
The Effects of Maternal Psychosocial Factors on Maternal Competence for Infant Feeding

term *behavioral health* should be used “for a new interdisciplinary subspecialty within behavioral medicine specifically concerned with the maintenance of health and the prevention of illness and dysfunction in *currently healthy persons* (emphasis added)” and said that *health psychology* should be reserved “as a more discipline-specific term encompassing psychology’s role as a science and profession in both of these domains” (Matarazzo, 1980, p. 807). In the years that followed, however, instead of behavioral health being uniquely applied to keeping healthy people healthy, the term was co-opted by psychiatry and used, instead, as a synonym for treatment programs for individuals with mental health problems. I suspect that providers of mental health services thought that there would be far less stigma attached to going to a behavioral health clinic than to a mental health institution, and there was very little push-back from those of us doing health psychology or behavioral medicine with healthy populations, so behavioral health never became the subspecialty of behavioral medicine that Matarazzo envisioned.

Lately, however, a new trend has begun. As behavioral medicine has grown in acceptance by the public-at-large, I have noticed that clinicians devoted to treating people with mental health problems are now advertising themselves as behavioral medicine providers instead of providers of behavioral health. As an example of what I am talking about, here is a description of the “Behavioral Medicine

Department” of a group practice in the southeastern United States:

The Behavioral Medicine Department at [name removed] focuses on the biological, psychological and social aspects of health and wellness for patients from four years old to older adulthood. The department includes psychiatrists, licensed clinical social workers, therapists and psychologists who are trained in areas of mental health such as: depression, anxiety, obsessive compulsive disorders, attention deficit disorders, sleeping disorders, schizophrenia, addiction, eating disorders, bipolar disorders, personality disorders and dementia.

Here is another recent description of a “psychiatric medicine practice” in the northeastern United States:

[Name removed] Behavioral Medicine...specializes in the care and treatment of emergency responders, physicians and other healthcare professionals and their families. We provide a full range of services including evaluations, ongoing treatment including medication management, psychotherapy, and coordination of care with other professionals. While we remain current in our knowledge and understanding of psychiatric medicine research and practice guidelines, we recognize that the best care is uniquely adapted to the needs and goals of each individual patient.

If this trend towards calling psychiatric practices “Behavioral Medicine” becomes as ubiquitous as the previous trend in labeling such practices “Behavioral Health” it will only further confuse the public and policy makers, and will make it even less likely that scientists from disciplines other than clinical psychology, psychiatry, psychiatric-mental health nursing and/or clinical social work would want to associate themselves with an organization such as the Society of Behavioral Medicine. It is not that those of us who conduct research in or practice behavioral medicine are not interested in mental health constructs such as anxiety, depression, or coping; rather, our primary focus is on people with physical health conditions not those with neuroses or psychoses.

I am continually surprised that when people ask me what I do for a living, and I respond that “I am a health psychologist,” most of them will follow-up by asking, “What in the world is a health psychologist?” That’s when I give my little speech that informs them that it used to be the case that psychology was primarily thought of as a mental health discipline, but for the past 40 or so years, with the advent of health psychology and behavioral medicine, some of us specialize in physical health or the interplay between physical and mental health. Think how much more confused they would be if I answered that “I do behavioral medicine!” That is why I think this recent trend where psychiatry is referring to itself as behavioral medicine is an unwelcome intrusion. We would be justified in insisting that the label “behavioral medicine” belongs to our field and not to those for whom the DSM-5 is required reading.

What can be done to ameliorate behavioral medicine’s “Diversity Problem”?

There can be little argument that in order for behavioral medicine to flourish there needs to be active involvement from scientists and practitioners trained in fields other than health psychology. Putting a cap on the number of health psychologists entering the field is not the solution. Health psychologists are naturally attracted to behavioral medicine, and there is no dearth of health psychologists ready and willing to identify with this multidisciplinary enterprise. The hang-up appears to lie with people socialized into the other 16 or so disciplines who, for whatever reason, choose to associate with others trained in the same discipline instead of becoming identified with this relatively new field that neither their peers nor the public at large understand all that well. I collaborate with a number of physicians trained in general internal medicine who are members of the Society of General Internal Medicine and who wouldn’t think of missing the annual SGIM research meeting. While they have no problem with me presenting

our work at an SBM meeting, I have not been successful in getting any of them to join SBM. Their friends aren’t members of SBM, so there is little chance in them knowing many people attending SBM’s meeting, and little expectation on their part that becoming involved in SBM will help them when their dossiers are reviewed for promotion and tenure by their medical school colleagues.

There was a time when SBM had a policy that every other year the member selected to be President-Elect of the Society had to come from a discipline other than psychology. The reason behind that policy was that by having the leadership of the organization come from another professional discipline there was a chance that other people from those disciplines would become aware of the organization and would be more likely to join if “one of their own” was the president. Over the years that this policy was in existence, a number of physicians were chosen to be presidents-elect, but even in the years when a non-psychologist was president of SBM the governing Board of the Society continued to be dominated by health psychologists. The last MD to be president of SBM was Michael Goldstein in 2001–2002, and the three nurses who were elected to be presidents of SBM between 1993 and 2005 had received their PhDs in psychology. Eventually that policy was eliminated when it became harder and harder to find non-psychologists willing to be nominated for that leadership office, and, as seen in Table 1, the percentage of physician members of SBM continued its downward trend.

One doesn’t need to be a member of SBM or ABMR to be involved in behavioral medicine. Not everybody who submits an article to a behavioral medicine journal belongs to an organization with behavioral medicine in its name. The same goes for people whose NIH grants are reviewed by the behavioral medicine study section. For that matter, even some of the people serving on the behavioral medicine study section aren’t members of SBM or ABMR. It is possible, therefore, that the professional disciplines of these “non-affiliates” are more diverse than the data presented in Table 1 suggests. Nevertheless, I suspect there are few members of SBM or ABMR who would disagree that those organizations would be better off if more non-psychologists would join with them and participate actively in their missions.

So, what might be done to help bring that about? One place to begin is to take a different approach to expanding SBM’s membership. The SBM Board might think about forming discipline-specific task-forces (in disciplines other than health psychology) with the explicit charge of identifying individuals in each of those disciplines who are involved in behavioral medicine research or activities (such as members of research teams, or those on editorial boards or study sections, or reviewers of articles submitted to behavioral medicine journals). Those task forces should

identify two types of people: (1) recent graduates who are either in post-doctoral positions, recently appointed assistant professors, or those who are in comparable entry-level non-academic positions but are not yet SBM members; and (2) mid- or later-career investigators or administrators who are eligible for Fellow status in SBM but are either not SBM members or are SBM members but do not yet have Fellow status. These discipline-specific task forces might have a specified time—say 3-months—to generate those lists of names and to submit those names with supporting information to the Membership Council which will then be tasked to pro-actively recruit those new members or facilitate the nomination of those prospective Fellows recommended by the discipline-specific task forces. These discipline-specific task forces should not be a one-time endeavor but should continue these recruitment activities until such time that they are no longer necessary, with the membership of the task-forces being augmented by the new members brought into the Society.

As a way of inducing persons from underrepresented disciplines to join SBM, the new members nominated by these task forces should be given a discount in their dues and annual meeting registration fees for up to 3 years. Furthermore, each year the SBM Program Committee invites speakers from underrepresented disciplines to give keynote talks or participate in special panel discussions at its annual meeting. In addition to paying speakers' expenses and honoraria, they should be given an honorary membership for 2 years in the Society, with the hope that after these 2 years they will convert to regular members. As more and more members from under-represented disciplines join and participate in the SBM mission, it is expected that by 2025 the percentage of health psychologists in SBM will shrink to about 33% while the total SBM membership will grow to about 4000.

At the same time that those task forces are constituted, SBM's Scientific and Professional Liaison Council should join forces with its Civic and Public Engagement Committee to do whatever is necessary to educate the public about what behavioral medicine is (and what it is not), with the goal that by its 50th anniversary in 2028 the field should be recognized and understood by at least 80% of college graduates and 90% of policy-makers.

Solving behavioral medicine's diversity problem should not rest solely on SBM's shoulders. Other professional organizations that are disease-specific have sprung up that have the same general objectives as SBM but don't necessarily have "behavioral medicine" in their name. One example is BRIDGE—(Behavioral Researchers in Diabetes Group Exchange)—a US-based society of scientists involved in behavioral diabetes research that is independent from other organizations that support diabetes research. BRIDGE membership consists of physicians,

psychologists, and nurse researchers, both from the United States and other countries. Interdisciplinary attendees at the BRIDGE annual meeting spend 2–3 days sharing and critiquing one another's proposed plans for conducting behavioral diabetes research. A different example is the field of behavioral cardiology (Rozanski, 2014) which has been described as "a complex field, as with many areas within behavioral medicine, and is one that hinges largely on the ability of non-behavioralists (generally cardiologists) to identify affected patients and to initiate the early steps in their psychosocial care" (Thomas, 2006). Yet another example is the field of behavioral oncology. Since 2006, the National Cancer Institute has funded the School of Nursing at Indiana University-Purdue University at Indianapolis to train the next generation of behavioral oncology scientists to conduct interdisciplinary cancer prevention and control research spanning the continuum of prevention, early detection, treatment, and survivorship. During that time, they have trained interdisciplinary behavioral scientists in medicine, psychology, nursing, informatics, epidemiology, neuroscience, and music therapy who are making significant contributions to cancer research both nationally and internationally.

While it is unrealistic to think that every School of Medicine, Nursing, Dentistry and Public Health would offer one or more courses in behavioral medicine by 2028, a reasonable target should be that two-thirds of the schools in these health-related disciplines would do so and that graduate programs of medical anthropology, medical sociology, and epidemiology would do likewise. When those targets are reached, there no longer will be a "diversity problem" in behavioral medicine.

Acknowledgements Although conversations with other health psychologists have convinced me that there is widespread consensus that the dominance of health psychology in the field of behavioral medicine is a problem in need of a solution, the opinions and suggestions in this article are solely my own. I would like to thank Marc Gellman, Andrew Schmidt, and Lori McBurney for sharing data about membership characteristics in SBM (MG and AS) and ABMR (LM).

Compliance with ethical standards

Conflict of interest The author is a Fellow in both the Society of Behavioral Medicine and the Academy of Behavioral Medicine Research, and the author is a member of the Advisory Board of EdLogics, Inc.

Human and animal rights and Informed Consent This article does not contain any studies with human participants or animals performed by any of the authors.

References

- Matarazzo, J. D. (1980). Behavioral health and behavioral medicine: Frontiers for a new health psychology. *American Psychologist*, *35*, 807–817.
- Rozanski, A. (2014). Behavioral cardiology: Current advances and future directions. *Journal of the American College of Cardiology*, *64*, 100–110.
- Thomas, R. J. (2006). Behavioral cardiology—Where the heart meets the mind. *US Cardiology Review*, *2*, 1–5.
- Weiss, S. M., & Schwartz, G. E. (2018). Behavioral medicine: A retro/prospective view of the field. *Journal of Behavioral Medicine*. <https://doi.org/10.1007/s10865-018-9960-5>.