An Integrative Medicine Approach to Asthma: Who Responds?

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Abstract

Objectives: The objectives of this study were to develop a better understanding of which patients with chronic illness tend to respond to integrative medicine interventions, by identifying a set of characteristics or qualities that are associated with a positive outcome in a randomized clinical trial of an integrative medicine approach to asthma that incorporated journaling, yoga breathing instruction, and nutritional manipulation and supplementation.

Design: The study used qualitative analysis using a grounded-theory approach comparing a group of responders in the parent trial (based on the Asthma Quality of Life Scale) to a group of nonresponders.

Results: Twelve (12) responders and 8 nonresponders were interviewed. Responders demonstrated an attitude of “change as challenge;” a view of themselves as “independent” and “leaders;” an ability to accept one’s illness while still maintaining a feeling of control over one’s choices; a connection to the deeper context or meaning of complementary and alternative medicine (CAM) interventions, as opposed to just “previous experience” of CAM; and a sense of determination, commitment, and “willingness to fight” for what one needs from the health care system. Nonresponders were more often uncertain and anxious in their relationship to their asthma, tending to fall back on denial, and lacking a connection to the deeper context or philosophy of CAM interventions.

Conclusions: It is possible to identify a set of characteristics that may predict a positive response to an integrative/lifestyle approach to asthma. These characteristics should be examined prospectively using both quantitative and qualitative methods in future integrative medicine clinical trials.

Introduction

AS PUBLIC INTEREST IN COMPLEMENTARY/ALTERNATIVE (CAM) and integrative medicine approaches for chronic illness grows, clinicians are often faced with the challenge of advising patients on which of the many CAM options might be effective in their specific case. In clinical practice, health care providers struggle with how to decide which patients are likely to respond to which intervention or combination of interventions. The goal in this exploratory study was to use qualitative methods to develop a better understanding of which patients with chronic illness tend to respond to integrative medicine interventions, by identifying a set of characteristics or qualities that were associated with a positive outcome in this trial of an integrative medicine approach to asthma.

The participants for this qualitative study were drawn from the 154 patients studied in a recently completed randomized clinical trial: “Effect of an Integrative Medicine Approach to the Management of Asthma in Adults on Quality of Life, and

Pulmonary Function.”¹ In this trial, a protocol was examined that incorporated journaling, yoga breathing instruction, and nutritional manipulation and supplementation in adults with asthma. A detailed description of the intervention, which consisted of six weekly sessions, is provided in Table 1; the intervention was “integrative” in the sense that subjects continued their usual medical care for their asthma during the study period.

A significant improvement was found in the treatment group compared to controls on the Asthma Quality of Life Questionnaire (AQLQ),² a validated disease-specific QOL measure which was the primary outcome measure. No difference was found in pulmonary function tests (PFTs) between the two groups. In this qualitative study, the authors examined a group of AQLQ responders within the treatment group compared to a group of nonresponders within the treatment group.

Based on findings from the parent trial, it is uncertain whether what is being examined in describing this group of responders is a set of qualities that tend to predict a physiologic

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TABLE 1. DETAILED DESCRIPTION OF TREATMENT INTERVENTION

Class 1/2 Nutritional Treatment and Supplements:

Nutrition education using the elimination diet strategy to identify and reduce inflammation-promoting foods in the individual's diet. During the elimination period (2–4 weeks), the patient avoids common causes of food sensitivity; this is followed by the provocation or “testing” phase. Food groups that provoke a worsening of asthma symptoms are then removed from the diet for the duration of the study period. At the first class, all subjects were also started on fish oil (2800 mg daily containing EPA 860 mg/DHA 580 mg); vitamin C supplements (1000 mg daily); and on a standardized hops extract with natural anti-inflammatory properties. Subjects were provided with a 6-month supply of supplements.

Class 3/4 Yoga Training: Subjects attended two classes in yoga and *pranayama* breathing techniques specifically selected to open the chest area and facilitate breathing. Classes were designed and taught by a certified yoga instructor with experience in the pulmonary rehabilitation setting. Subjects were provided with a CD for home study and practice.

Class 5 Journaling: Subjects attended one guided journaling session in which they were asked to write for a 30-minute period about the most traumatic or stressful life experience to date. This session was facilitated by a social worker with extensive experience in assisting trauma victims.

Class 6 Information: The final session was an informal question-and-answer session with the principal investigator to answer participants' questions regarding their asthma as well as the specific treatments delivered in the study.

response to this specific intervention not captured by a change in PFTs, with adherence to treatment possibly playing a role in mediating this response, or rather the qualities that tend to predict a potent physiologic but nonintervention-specific placebo or self-healing response to a lifestyle intervention. At least two recent studies have demonstrated a strong response to placebo medication in some patients with asthma, though one of these found a measurable change in PFTs³ and the other only in self-reported asthma symptoms.⁴ In the present study, which was not specifically exploring response to an inert medication so much as a more general response to treatment, the term “meaning response” coined by Moerman,⁵ or the more general term “self-healing response,” may be more useful for this discussion than the term “placebo.” Regardless of whether a physiologic response specific to this intervention is being examined or a nonintervention-specific self-healing response, the answer to the question of which patients are most likely to demonstrate improved quality-of-life remains critical from the point of view of clinical decision-making.

A number of theoretical constructs have been advanced in the literature to explain why patients choose complementary/alternative medicine approaches, including dissatisfaction with conventional treatment; increased personal control and sense of autonomy and empowerment; and philosophical congruence with world view and beliefs regarding the nature and meaning of illness.⁶ However, no literature to date has thoroughly examined whether these constructs not only predict use of CAM, but whether they may also be associated with an increased probability of CAM approaches

being successful. Using a grounded theory approach, the authors explored the degree to which these beliefs or characteristics are associated with a positive outcome from a CAM intervention. In particular, the third construct was expanded on and explored more deeply: do successful CAM study participants have more of a belief in the concept of self-healing or intrinsic healing power? Do they believe more in the healing power of nature? Do they have past experiences of success with CAM? Do they believe that healing strategies that work to support the body rather than to counteract symptoms or the body's own reactions are more effective?

The research question in this study was whether it would be possible to identify a set of traits, attitudes, and experiences that differs between subjects showing a strong positive response to an integrative medicine intervention for asthma and those not showing such a response. This set of characteristics then could provide a foundation for future research exploring what patient factors may predict response to this type of integrative approach to asthma as well as other chronic disease, ultimately providing a useful decision tool to clinicians wrestling with the many choices available in managing chronic illness in practice. The authors also sought to explore the question of what bearing adherence to treatment might have on response in this setting.

Methods

This qualitative study was approved by the Beth Israel Institutional Review Board (IRB) as a substudy under the original IRB approval for the parent trial. The parent asthma trial was completed in August 2008. Subjects for this follow-up study were selected from the pool of patients in the treatment arm of this asthma trial. Two (2) subgroups of subjects for the secondary evaluation planned here were randomly identified: 20 subjects who showed a durable benefit from the intervention (improvement at the 6-month mark in AQLQ score >0.5), and 20 subjects who did not (improvement in AQLQ score ≤0). These individuals were contacted by telephone by our Research Coordinator (JK) and invited to participate in an individual qualitative interview. A maximum variation sampling strategy was used within the two categories of responders and nonresponders to try to capture as wide a range of experiences and attitudes within this sample as possible. An attempt was made to ensure that the two groups were similar in age and gender composition. Interviews with responders and nonresponders were scheduled based on subject convenience. All interviews were conducted by BK, who was blinded to responder status and to adherence at the time of the interview. Those agreeing to be interviewed signed informed consent before the interview began and were provided a \$50 stipend for participation. Interviews were audiotaped and then transcribed.

The authors stopped after 12 responders and 8 nonresponders were interviewed, having reached saturation at that point with no new themes emerging from the interviews. The study process from question development to analysis is outlined in Figure 1.

Based on the work of Astin described above, and on other pertinent integrative medicine literature,^{7,8} probe questions were developed to elicit information from participants about the qualities, attitudes, or other characteristics that may explain either a positive response or a lack of response to an

FIG. 1. Methods for qualitative analysis process.

integrative medicine intervention. Constructs such as the concept of self-healing and the healing power of nature, as well as the cultural congruence of CAM therapies and the importance of subjects' previous experience with CAM, served as some of the starting points for the inquiry.

Using this set of questions, an initial set of 8 subjects was interviewed. Three (3) readers then read each of these interviews using a narrative analysis approach. Based on the results of this preliminary analysis, a number of questions were added to the interview guide. This expanded interview guide was then used for the subsequent 12 interviews. Sample questions from the interview guide are provided in Table 2, with the questions added after the preliminary review listed separately.

To develop a set of codes appropriate for the material, 3 independent readers (BK, ES, HL), without any preconceived themes, read a sample of four interviews selected for maximum variation on rich content and independently identified themes. These readers then collaboratively identified the overlapping and unique themes and arrived at a tentative consensus set of thematic concepts that were used to create a set of codes for systematically coding the data. This coding strategy was then reviewed by two senior qualitative researchers (DM, AK), who each read two different interviews of these four and commented on the appropriateness of the codes. Several additional coding categories were added as a consequence of this review. The authors then proceeded to a second sample of three interviews and all three core coders (BK, ES, HL) read this set and applied the revised codes. The data were coded using NVivo (QSR International, Doncaster, Australia), a qualitative data analysis program. One of the authors (BK) then examined the coding of this second set of interviews for consistency between readers and found a very high degree of consistency using the NVivo function to evaluate reliability

across analysts. Then the remainder of the interviews were coded, with BK coding all interviews and a second coder (either HL or ES) coding each as well. This stage included a recoding of the original four interviews that had been used to generate the codes. Once the coding was completed, the immersion/crystallization approach was used⁹ to look for emergent patterns in each of the two groups. Once these themes were described, two of the authors (BK, ES, HL) re-read all of the interviews, searching for any disconfirming data.

Evaluation of adherence

To evaluate the relative importance of adherence in determining outcome on the AQLQ, two strategies were used. First, in the 6-month exit interview for the parent study, adherence by self-report was assessed, asking patients what changes they had made and sustained during the 6-month period and quantifying their answers on a 1–5 scale based on how many areas of change* they reported. In this qualitative sample, the authors coded specifically for reported behavior changes and examined the data for differences between responders and nonresponders.

Results

The demographics and asthma severity of the qualitative sample were examined first, looking for any differences between responders and nonresponders, or between the qualitative study subgroup and the overall treatment group

*subjects could report either 1 or 2 major areas of change in diet; regular yoga practice; regular journaling; and continuing use of nutritional supplements, for a total of 5.

TABLE 2. SAMPLE INTERVIEW QUESTIONS

Tell me about the history of your past experiences with asthma

- When did you first find out you had asthma?
- What impact has asthma had on your life up to now?
- Who has helped you cope with the asthma in the past?
- What aspects of your life have made it more difficult to deal with your asthma in the past?

Tell me about your past experiences of CAM/unconventional treatment approaches

- What other types of therapies have you tried for your asthma? Have they been helpful? In what ways have they been helpful?
- Do other people in your life use CAM? What were your views of CAM like before starting this study? How effective did you think CAM was in general? How do you think those effects really work?
- How do you see CAM as different from your regular asthma care?
- Have any other types of therapies been helpful in other aspects of your life?

What made you decide to join the asthma study?

What elements of what you heard about it attracted you?

Tell me about your experience during the study

- What parts of the intervention were most helpful for you? Why?
- What parts were least helpful? Why?
- What was it like making the changes you were asked to make during the study?

Tell me about your experience with your asthma since the study ended

- Have you continued with any of the strategies you learned during the study?
- Has anything changed in your thoughts about how asthma affects your life now when compared to before the study?

Questions added after initial 8 interviews**Tell me about a time in your life when you had to make a major change**

What helped you make that change? What made it harder?

How do you think the specific time in your life when the asthma study came along might have influenced your experience in the trial?

CAM, complementary and alternative medicine.

described in the original study. Although the numbers were too small for meaningful statistical testing, no differences were found between the responder and nonresponder groups except for in the area of gender (1/12 responders interviewed was male versus 2/8 nonresponders). A conscious attempt was made to include male subjects in each group, but this was limited by the fact that the original study treatment group sample from which the qualitative subjects was drawn was only 17% male. Regarding age, ethnicity, marital status, and asthma severity at baseline, there were no differences apparent between the responders interviewed and the nonresponders. There were also no substantive differences between the subgroup for this qualitative study and the treatment group from the original study from which they were drawn.

Regarding the qualitative findings, substantial overlap was found between responders and nonresponders, making it difficult to draw definitive conclusions from this relatively small sample. However, a number of themes were found that emerged in the interviews distinguishing the two groups, which might be useful in providing directions for future research. The findings from the key themes will be summarized in order of importance and then a synthesis of the emerging patterns in these data will be proposed.

Self-concept

Over half (7/12) of the responders describe themselves as “take charge” people, using words like “independent,” “opinionated,” and “rebel” in their descriptions of themselves. Several responders referred to being the oldest in the family and a “leader”:

- *I'm a leader...I'm the only child. My mother doesn't have any more kids. So I had to become a leader.*
- *Even my friends...they're all like that. They're their own person...each of us is individualists and we all have very strong opinions about the world and the way it should be.*
- *I'm an opinionated person, and I was an opinionated child.*

These descriptors did not appear in any (0/8) of the nonresponder interviews. Nonresponders described themselves more often as indecisive and anxious, tending to change their mind easily:

- *I'm one of those people that are gung ho when I start and then something happens or I get busy and forget about it.*
- *I'm a high anxiety person...because of a couple of bad experiences to medications I had when I was younger, I have kind of a high anxiety reaction to anything new.*

There were of course exceptions to the “take charge” attitude seen in the responders; one responder described feeling “ashamed” and “defective” as a consequence of having asthma: “Cognitively I work around that, but if you were to take my knee jerk reaction, I feel embarrassed or weak, or like I’m a failure.”

Relationship to asthma

Here again, although not universal, a pattern did emerge distinguishing AQLQ responders from nonresponders. Over half (7/12) of responders described a combination of acceptance of having asthma combined with an unwillingness to have the asthma defeat them or stop them from doing what they want. One said, “Real control involves letting go,” describing a balance between accepting the illness while still maintaining a feeling of control over one’s choices.

- *I've kind of accepted that I have this issue for the rest of my life. And as a result of this, I've gathered information to help me live better.*
- *Understanding that there was sort of a practical way I could deal with it. Like I didn't have to feel defeated by it or anything like that. That has really helped over time.*
- *Why do it? Why not? I choose to look at the positive rather than the negative. And emphasize the positive. It makes life a lot...easier to deal with.*

Nonresponders (4/8) expressed more anxiety, insecurity, and fear about the asthma, and some preferred denial to acceptance as a strategy for managing the relationship with the illness.

- *Sometimes you just ignore things and think it'll go away and it'll fix itself.*
- *I make choices about when to act on it and when to be in denial...The denial is a...double edged sword...It helps me get through a lot of stuff. But then there's the other side.*
- *I'm kind of asthma stupid.*

Again there were exceptions to the patterns: one responder described her asthma as an "albatross," clearly a negative image. One nonresponder strongly exemplified the "can-do acceptance" of the responder pattern:

- *I feel more confident as a mother, as a person, making choices that fit me and my family...And I feel that my choices are getting better. I don't define myself by worrying about asthma.*

This particular nonresponder—"Jeanne"—stood out on a number of themes as resembling much more closely the responders than the nonresponders in her overall attitude toward change and toward her asthma. A post-hoc analysis of AQLQ scores showed that Jeanne's initial score on the AQLQ was extremely high—leaving very little room for improvement on the post-test. Thus, this seemed to be a "ceiling effect" in our measure, in that at least one subject started out with such a high level of mastery of her asthma—as reflected in the statement above—that it was not possible to detect a significant improvement. No others with this type of ceiling effect were found in either group.

Previous CAM experiences

Regarding previous experience with CAM approaches, more than half of the subjects in both groups had at least some prior experience with CAM. In general, responders reported more positive outcomes from this prior experience (7/12), but several nonresponders had had good experiences with CAM as well (4/8). Many subjects in both groups reported experiences with natural medicine approaches as children or in their families, some useful and some not. What stood out as different between the two groups was a deeper sense of the "meaning" of the CAM approach. A number of the responders (4/12) described some way in which their CAM experience was more coherent with their inner experience, core life philosophy, or "energy" in a way which was absent (0/8) in the nonresponders' descriptions of their CAM experience.

- *I really believe in energy, you know, movement within...if you can recognize and capture and make it work for you, I think that you can have a little bit more command over your body than people might think.*
- *I do believe that these things work the way maybe acupuncture or acupressure...works, because these people know...the body's a mysterious thing. It's very complex...the mind body spirit thing that they always talk about, is very important.*

Some responders (3/12) also reported that CAM practitioners in general were more supportive of their need to make their own decisions about care. This emphasis was again missing from the nonresponders.

Conventional medicine experience

Both groups expressed a preference for less rather than more conventional medications. However, the responders described far more negative experiences with conventional physicians than did the nonresponders. They reported being scolded and even disrespected at times by conventional practitioners and a feeling of "needing to fight" (5/12) to get what they needed from treatment.

- *They're like "You're not a doctor, so who are you?" Actually one came out and told me "You're not a doctor."*
- *I don't need that. I don't want to fight with you to get treated. I want to feel some kind of esteem with the advice you're providing me.*
- *And he said "That's ridiculous" and I thought, you know, that's pretty narrow minded. And I'm going to have to find something different. This isn't working.*

One responder described frustration at feeling that she needed an individualized approach to their asthma, as opposed to the "one size fits all" offered by conventional medicine:

- *I go to a doctor and he generically is going to tell me things that happen with asthma patients...but it's not geared to me as an individual. So those are the things I've learned.*

In some of the interviews it seemed as if this frustration or anger at conventional medicine became a positive force for patients to "find something different" that would be effective for their asthma. Although many nonresponders expressed a preference for natural methods over conventional medications, this "fighter" attitude was absent from their descriptions of their experience with their conventional providers.

Attitude toward change

Although subjects in both groups described the changes required for this study as difficult—especially the dietary changes—responders tended to have a much more positive attitude (5/12) toward the challenge of making change than nonresponders did. There was a sense that learning new things could be not just difficult but productive and valuable:

- *It really stinks, but how do we reframe this because we're going to have to live with this. How do we make this a positive experience?*
- *You have to be ready to change. And people think they might want to change, but I think when it comes to the work involved it's too hard, it's easier not to change.*

This positive attitude toward change appeared in subjects' responses not only to the questions regarding the study, but also to questions addressing other challenging changes they had had to make in their lives, whether health-related or not:

- *We don't seek them out [challenges], but when they're thrown at us we kind of go with it.*
- *I like a challenge, so I thought...it's easy for me...Making changes like that aren't hard for me...Anything that I perceive as a valuable challenge is not really hard for me.*

Nonresponders tended to describe the difficulty of the change more than the value of it. This group (5/8) also focused more on the time and energy required to make the changes:

- *It's hard! Food is so emotional. So I stayed eating more or less the way I did; you just feel like you're in a smaller and smaller box.*
- *It was difficult to do the nutrition...in terms of time, effort, and money.*
- *It does help to have the money and the time. Because...to do certain things like the food and the exercise...you need to have money and time.*

Nonresponders also expressed a sense of defiance or even resentment toward the sacrifices they were expected to make in the study protocol, especially regarding dietary changes.

No differences were discovered between the two groups in the degree to which they reported actually making the changes recommended in the study protocol: Both groups reported the whole spectrum of experiences, from making very little change to making long-term, large-scale changes in diet and lifestyle. These findings were consistent with the authors' analysis of adherence from the parent trial, which did not find any difference between AQLQ responders and nonresponders in terms of adherence reported at the 6-month visit.

Root causes

Contrary to expectations, no substantive differences were found between the groups in how much importance they placed on identifying and treating the root causes of their asthma rather than just the symptoms. Both groups described a similar sense of the causes of their illness (ranging from specific environmental triggers to genetics to stress and unresolved emotional conflicts), and felt that addressing the root causes was a critical part of managing their asthma.

Connection with spirituality

A number of subjects in both groups described a connection to spirituality, prayer, or something larger than themselves as important in managing their asthma. Based on Astin's notion of "personal transformation"¹⁰ as an important predictor of CAM use, it was thought that these beliefs might be more prevalent in the responder group—but perhaps this type of belief predicts CAM use but not CAM outcomes.

Discussion

Although there are many exceptions and substantial overlap between the two groups, this qualitative analysis does begin to describe a set of characteristics that are seen more often in the responder group than in the nonresponders. Responders demonstrated an attitude of "change as challenge;" a view of themselves as "independent" and "leaders;" an ability to accept one's illness while still maintaining a feeling of control over one's choices; a connection to the deeper context or meaning of CAM interventions, as opposed to just "previous experience" of CAM; and a sense of determination, commitment, and "willingness to fight" for what one needs from the health care system. Nonresponders were more often uncertain and anxious in their relationship to their asthma, tending to fall back on denial, and lacking a connection to the deeper context or philosophy of CAM interventions.

This study's data on adherence, although not at all definitive, do not show a correlation with positive versus

negative outcome on the AQLQ. This would suggest that what is being examined in the responder group is not a function of adherence but rather either a specific effect of the treatment not captured by PFT measurement, or a strong nonspecific self-healing response.

Although there is an extensive literature discussing the placebo/self-healing effect,¹¹ very little is known regarding patient factors that tend to predict a strong self-healing response.¹² Even less is known about what factors may predict this type of response to a CAM intervention,¹³ and whether these factors differ from those predicting response to a conventional inert medication-type placebo. Kemeny et al., in their recent study of placebo medication for asthma, prospectively measured a number of dimensions of personality and expectancy using existing quantitative measures and found none that correlated with the significant placebo response they found in 18% of their sample.¹⁴ Kelley et al. similarly examined a number of measures prospectively in their study of sham acupuncture for irritable bowel syndrome, in which patients all received the sham treatment but some had an empathetic practitioner and others did not. These authors found that the set of characteristics that did correlate with positive response—extraversion, agreeableness, openness to experience, and female gender—were only operative in the arm with an empathetic practitioner, suggesting that these factors may predispose to a specific type of response to a type of provider, but not to the self-healing response in general.¹⁵ In a qualitative analysis of this same sample, Kaptchuk et al. concluded that "the placebo effect involved a spectrum of factors and any single theory of placebo—e.g. expectancy, hope, conditioning, anxiety reduction...provides an inadequate model to explain its salubrious benefits."¹⁶ Other recent research on the self-healing response both in CAM and conventional settings has similarly failed to clearly identify the patient factors which predispose to a strong self-healing response.^{17,18,19}

A number of the characteristics or patterns identified in the responder group are worthy of further investigation as possible predictors of response to this type of lifestyle intervention—whether the response being predicted is triggered by the treatment or by the self-healing effect. Some of these factors—such as the positive orientation toward change, the self-described "leader" quality, and the "empowered acceptance" attitude toward asthma—can potentially be measured at least in part by existing personality indices such as the NEO-Five Factor Inventory and quantitative measures such as the Positive and Negative Affect Schedule or the Illness Perception Questionnaire. Others will require the development of new validated tools to further investigate their potential contribution to patients' responses to CAM interventions. For example, the idea that previous experience with CAM might not be an important predictor, but that some type of philosophical or meaning-oriented connection with CAM, or a history of particularly meaningful connection with a CAM practitioner, might contribute to successful response, could easily be examined for predictive value using a well-designed quantitative measure. There is substantial overlap between the model of the "responder" that begins to emerge from the data of this study and Kobasa's "hardiness" model, in which high-stress subjects who manifest less illness, in comparison to those who are frequently ill, consistently show "a stronger commitment to self,

an attitude of vigorousness toward the environment, a sense of meaningfulness, and an internal locus of control.²⁰ This overlap would suggest that future studies should also prospectively incorporate scales that capture baseline hardiness as well as some of the other qualities described by Kobasa as possible predictors of outcome.

Limitations

The authors do recognize that conducting these interviews post-hoc, after the subjects have already completed the intervention, may not be the ideal method to inquire into what characteristics predict response. Larger scale future studies will employ a prospective design to examine how beliefs and attitudes influence response; the prospective approach will eliminate some of the recall bias at play in the current study.

Conclusions

Although it may be controversial to propose that the effectiveness of some CAM/integrative approaches may be due to a nonspecific self-healing response rather than to a specific physiologic effect of the intervention, for the practicing clinician this distinction is almost unimportant. If an intervention that is safe and inexpensive can be proposed to a patient with a chronic illness—and simultaneously predict or identify whether such a patient is likely to respond with a strong self-healing response to this type of intervention—the chances of treating patients successfully with CAM approaches for chronic illness will dramatically improve. Whether the mechanism of this success is externally evoked by the actual therapy, or internally via the self-healing response, becomes irrelevant when the treatment is safe and inexpensive and the patient is a willing partner. Clearly, research will continue to be needed to elucidate the biologic mechanisms through which CAM therapies may affect disease outcomes, as well as additional research to understand which CAM therapies are most effective for which conditions. But from the point of view of clinical practice, the question of which patients are likely to respond regardless of the mechanism is at least as pressing.

If the results of further qualitative research can ultimately be used to begin to develop a validated survey tool to predict which patients will tend to respond to which type of CAM intervention—whether a strong self-healing response or some other physiologic change leading to improved health is being predicted—a great advance in the clinical practice of integrative medicine will have been made. It is felt that this qualitative inquiry provides some important new questions for possible investigation in prospective trials of CAM interventions.

Disclosure Statement

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