

# Two Views

## Should mental health professionals encourage infertile patients to try complementary therapies?

### View **1** Complementary therapies may lower distress and improve well-being.

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#### Mental health professionals must help patients cycle with the lowest distress levels possible.

In the only study so far to use the gold standard of a structured psychiatric interview with infertile patients at their first visit to an infertility clinic, 40% met the criteria for a diagnosis of anxiety, depression, or both. This contrasts sharply with a community prevalence of 3%.<sup>1</sup>

We know from past research that distress rises as infertility duration and treatment intensity increase. The more distressed patients are, the less likely they are to conceive; the higher the distress level at the beginning of the treatment cycle, the lower the pregnancy rate.<sup>2</sup> Finally, we know that patient distress is the most common reason that insured patients terminate in vitro fertilization (IVF) before they conceive or complete their covered number of cycles.<sup>3</sup>

#### Few patients avail themselves of psychological services.

The instinct of trained mental health professionals is to recommend the services we can provide, including individual psychotherapy, support groups, or couples therapy, for distressed patients. However, past research has shown that while infertility patients want psychological services to be made available to them, very few actually avail themselves of these services.<sup>4</sup> It is quite likely that patients are aware they are distressed but are loath to be labeled as “crazy” or “unable to cope”

by themselves or anyone else, especially by their medical care team.

Thus we have a situation that involves highly distressed patients who are at risk for lower treatment success but are unwilling to see a mental health professional. Some of these patients may be more amenable to trying complementary treatments.

#### Safe, modestly priced complementary modalities may be effective.

Modalities that have no negative effects and the potential for benefit are appropriate, such as acupuncture, mind/body groups, Hatha yoga, massage therapy, and nutritional counseling. The rule when recommending a complementary therapy is “do no harm.” Research on acupuncture, for example, has shown a 1/80,000 complication rate.<sup>5</sup> Any therapy, such as herbs, supplements, power yoga, and abdominal massage, that may pose some danger to infertile patients is not acceptable.

How effective are these modalities? My colleague on the “no” side of this debate correctly points out that research to date does not support a definitive relationship between complementary approaches and an increase in pregnancy rates or a decrease in distress.

Perhaps the most important reason for this lack of evidence is the question of the placebo effect. It is easy to control for the placebo effect in drug studies, where patients and investigators alike are blind to subject assignment. It is close to impossible in the field of complementary health care. A patient in the treatment group of a massage therapy study is well aware of receiving a massage, just as the person administering the massage does so knowingly.

Despite the publication of 4 randomized controlled studies, all of which demonstrated a robust positive impact of acupuncture on IVF pregnancy rate, it is impossible to be certain that the placebo effect was not a factor.<sup>6-9</sup> In fact, I am the primary investigator of a recent study showing no positive impact of acupuncture on IVF success rates.<sup>10</sup>

However, let us hypothesize that the research supporting the efficacy of complementary modalities with the infertile population is all due to the placebo effect. These modalities cost far less than an IVF cycle (such as \$150 for pre- and post-embryo-transfer acupuncture), but the increases in pregnancy rates have ranged from 10% to 20% per cycle. Does it really matter if the increase is due to the placebo effect?

There is minimal evidence to support the use of clomiphene citrate with infertile patients, yet it is routinely the first line of treatment. Since there is essentially as much proof to support complementary approaches as the most common medical one, with less cost and fewer side effects, why wouldn't we refer patients?

#### Conclusion

Complementary approaches cannot replace the need for psychological services for a patient who has a diagnosable depression or anxiety disorder, nor should they be promoted in a way that raises false expectations. However, for a stable patient who has been through treatment without success and perhaps wants to feel that everything has been tried, safe complementary therapies may be an appropriate means of improving well-being and, perhaps, fertility success.

Dr Domar reports that she receives grants/research support from Organon.

# View **2** There is no compelling evidence of greater benefits for complementary therapies than for psychological interventions.

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### Mental health professionals are equipped to address the problems typically presented by infertile patients.

Common presenting problems of infertile patients include high levels of distress (eg, anxiety and depression),<sup>11</sup> marital and psychosexual stress,<sup>12,13</sup> and coping problems.<sup>14</sup> Mental health professionals have evidence-based interventions and expertise to deal with these problems. Psychological interventions in infertility have been shown to be effective in addressing these problems, reducing anxiety, and, in some studies, improving pregnancy rates.<sup>15</sup> We know, for example, that cognitive behavioral therapy (CBT) appears to lead to significantly increased pregnancy rates in infertile women.<sup>16</sup>

### There is no compelling evidence of greater benefits for complementary therapies than for psychological therapies.

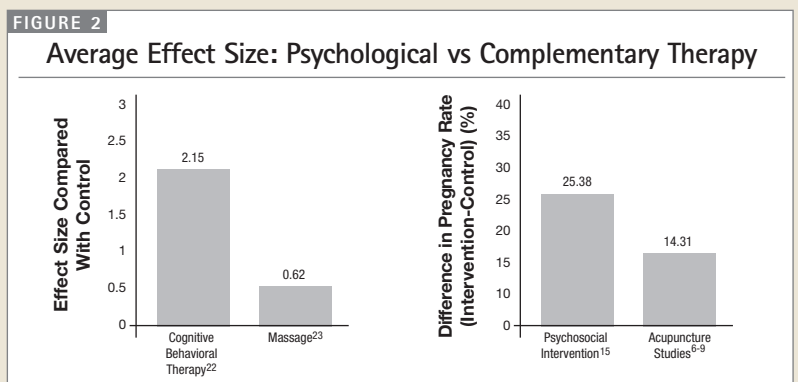
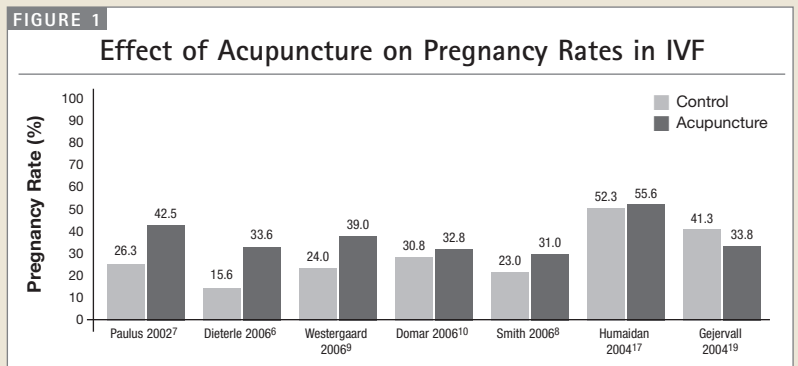
Regarding absolute efficacy, the evidence for complementary therapies is mixed at best. Studies of acupuncture show varying effects on pain relief during oocyte retrieval and on pregnancy rates (FIGURE 1).<sup>6-9,17,18</sup> Even my colleague on the “yes” side of this debate has concluded, “The research published to date does not show a definitive positive impact of acupuncture on in vitro fertilization (IVF) success rates.”<sup>19</sup>

Dr Boivin reports no financial relationships with any company whose products are mentioned in this article or with manufacturers of competing products.

The benefits are no clearer for other complementary approaches. A recent review of research into the benefits of yoga for anxiety concluded that it is not possible to say yoga is effective,<sup>20</sup> and a study of the benefits of yoga for depression noted that the findings must be interpreted with caution.<sup>21</sup>

Regarding relative efficacy, the evidence is even weaker because effect

sizes for psychological interventions are greater than for complementary therapies (FIGURE 2).<sup>6-9,15,22,23</sup> Numerous studies have shown the benefit of CBT for depression,<sup>22</sup> while the benefits of massage therapy (MT) appear less pronounced.<sup>23</sup> CBT appears to produce a significantly greater increase in pregnancy rates (compared with control) than does acupuncture.<sup>6-9,15</sup>



Data presented in this figure illustrate the effect sizes noted in meta-analyses of psychological and complementary therapies. The data are from several different studies that had different populations and used different methodologies.

Despite the lack of compelling evidence, these approaches might be worth pursuing if they targeted a different causal pathway than psychological intervention. Yet, in many cases, they appear to target the same route and to do so less effectively. Benefits of MT, for example, may actually be a result of the recipient's attitude toward MT, the personal characteristics of the therapist, and the interpersonal contact and communication that take place during treatment rather than the particular form of MT or site to which it is applied.<sup>23</sup>

### Complementary therapies can have adverse effects.

If people believe complementary therapy is effective and it gives them an additional tool to tackle their problems, does it matter how it works? My colleague argues that complementary approaches are relatively painless, have no known adverse side effects, and are inexpensive compared with fertility treatment.

In fact, these modalities can have adverse effects. Several studies have shown higher pain intensity with electroacupuncture versus conventional analgesia in oocyte removal,<sup>17,18</sup> and insurance data show claims against massage therapists for physical injuries (data from Albert H. Wohlers & Co., Park Ridge, Ill).

In addition, interventions administered simultaneously mask the true source of benefits, leading people to mistakenly believe they have been helped by an ineffective intervention. Misattribution may deny them the chance to recognize their own potential for change, and it may help perpetuate the myth that ineffective interventions work.

Complementary approaches may have adverse effects on treatment-seeking. Trends suggest such effects: Annual visits to practitioners of alternative therapies increased by about 47% in the 1990s and annual visits to primary care physicians were flat or fell slightly.<sup>24</sup>

Finally, there may be adverse effects on prognosis. In the ongoing Copenhagen Multi-centre Psychosocial Infertility (COMPI) Research Programme, a longitudinal study of couples in IVF treatment, we have been tracking treatment outcomes and complementary therapy use. Data on 815 couples at 12-months' follow-up showed higher pregnancy rates, with fewer treatments, among couples who did not use complementary therapy than among those who did.

The implications of this association are not clear. More distressed people use complementary therapy; distress could account for the lower success rate. Lack of success itself might encourage couples to try complementary approaches; or complementary therapy might have a direct effect, reducing the chances of conception. Five-year data from the program, which we're collecting now, may shed some light on the question.

### Conclusion

There is no compelling evidence that referral to complementary therapies has benefits above those that the best evidence demonstrates for psychological interventions. Further, there is some indication that it negatively influences prognosis in some patients.

There may be a place for complementary approaches when they are focused primarily on improving quality of life rather than on improving chances of pregnancy. However, genuine processes for change most likely involve the psychological work best undertaken by mental health professionals. ■

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