Should Mental Health Interventions Be Locally Grown or Factory-Farmed?

In this issue, Fortney and colleagues (1) open the next phase of research regarding organized depression care programs. The effectiveness of these collaborative care programs is now well established (2, 3). Essential ingredients include outreach and support by a care manager as well as specialty supervision or consultation for patients who do not respond to standard treatment (2, 3). Such programs were initially developed in settings where care managers and consulting specialists were locally available (4). Fortney et al. compared two strategies for providing these services in settings lacking local mental health resources. Five federally qualified health centers were randomly assigned to implement depression care management using either local primary care staff (with no specific supervision or quality control) or centralized care managers supported by an off-site consulting specialist. Patients in clinics using the centralized approach were approximately three times as likely to experience significant improvement or to achieve remission of depression. Fidelity to the care management protocol (goal setting, encouragement of positive activities, and systematic assessment of treatment adherence and outcomes) was markedly higher for the centralized program. Antidepressant treatment did not differ between the two groups, suggesting that benefits of the centralized program were due to the psychosocial aspects of care management, including both nonspecific support and specific behavior-change interventions.

This finding has important implications for the implementation of organized depression care programs. Care management or collaborative care programs can certainly work in settings lacking on-site or local mental health providers. In fact, the benefits of organized depression care programs are greatest where existing care is minimal (5–7). But the Fortney et al. trial suggests that organized depression care programs in resource-poor settings are more likely to work if care management is centralized, care managers are employed full-time in this capacity, and care is supervised by off-site specialists. While one trial involving five clinics and a few care managers does not definitively settle this question, the only high-quality evidence available strongly favors the centralized approach.

More important, these findings raise broader questions regarding the implementation of other empirically supported mental health treatments. Efforts to disseminate these complex interventions have typically focused on training and supervision to improve services delivered by local community therapists (8). The Fortney et al. trial suggests the possibility of an alternative approach: delivering empirically supported treatments from a central location using dedicated clinicians. To traditionally minded clinicians, centralized or "factory farmed" psychosocial treatments would seem oxymoronic. But this question should be settled by evidence rather than tradition.

In our daily lives as consumers, we frequently face choices between locally made and centrally made services. Our preference for one or the other depends on the specifics of the situation. For example, many of us would prefer to eat hand-made bread, but most would prefer not to drive automobiles that depend on hand-made brakes. We might prefer corn that's locally grown on a family farm, but most of us

would be reluctant to fly in homemade airplanes. From those choices, we can infer our rules for choosing things that are either locally grown or factory-made. Some things (like fresh-baked bread and hand-picked sweet corn) just don't travel well; the locally grown option will usually taste better. And variability between loaves of bread or ears of corn is hardly a problem. Variation often adds to the appeal and may add to the flavor. In contrast, airplanes and automobile brakes hold their quality well over long distances. Both were made to travel. For both airplanes and auto brakes, standardization is a virtue. We don't mind that our brake parts were stamped out by machines that have made those same parts thousands of times. While sitting in an airplane about to take off, it's comforting to think, "Millions of people have flown billions of miles in planes exactly like this one."

Considering these examples, we might ask: Are mental health treatments more like sweet corn or automobile brakes? We would usually put medication treatments in the latter group, where we value uniform quality over one-of-a-kind craftsmanship. The recent meningitis outbreak traced to a compounding pharmacy only reinforces the argument for "factory-made" pharmaceuticals. A centralized and standardized production process for medication will generally improve both quality and safety. But we have traditionally considered psychosocial interventions (like care management or actual psychotherapy) to be more like artisan bread than auto brakes. We prefer our psychosocial interventions to be locally grown, hand-made, and one-of-a-kind.

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The robust findings in the Fortney et al. trial cause us to reconsider an automatic preference for locally grown psychosocial interventions. Recalling our rules for choosing locally grown sweet corn and factory-made auto brakes, we can ask two questions about any psychosocial treatment. First, does it travel well, or does the quality decline over distance? Second, is local variation beneficial, or does centralized and standardized production improve quality or effectiveness?

Consistent evidence indicates that psychosocial interventions can be provided at a distance—via telephone or videoconference—with only minimal loss of taste or freshness. While the original collaborative care programs emphasized in-person treatment, many subsequent versions have depended largely or entirely on telephone contact (9, 10). Several trials support the clinical effectiveness of psychotherapy for depression delivered entirely by telephone (11). Psychiatric assessment and treatment via videoconference appear to be as clinically effective as in-person services (12). In the most direct comparison of in-person and telephone psychotherapy, Mohr et al. (13) randomly assigned primary care patients to receive cognitive-behavioral psychotherapy for depression by telephone or face-to-face. The two treatments were delivered by the same therapists following the same treatment protocol, so this comparison isolates the specific question regarding loss of clinical effectiveness in telephonic treatment. Patients assigned to telephone psychotherapy were more likely to continue treatment and experienced similar short-term improvement, but they were somewhat more likely to experience a return of depression 6 months later.

We have limited data directly comparing the fidelity or quality of locally produced (and more variable) psychosocial interventions to that of centrally produced

(and more uniform) treatments. The Fortney et al. trial addresses this question directly. Care managers with the same background and training delivered the same intervention through either a centralized or a localized model. The centralized model was clearly superior—in quality of the service delivered, patients' perceptions of helpfulness, and patients' clinical outcomes. Any benefit of local relationships with patients or providers was outweighed by the higher quality of the centralized program. This finding in favor of centralization and standardization might not apply to treatments that are more intensive and complex, such as true psychotherapy. We can certainly point to evidence that centralized psychotherapy programs have clinical benefit. But we have no high-quality evidence directly comparing the effectiveness of centralized and locally provided psychotherapy. We hope that Fortney and colleagues' provocative findings will provoke direct comparisons of centralized and locally produced approaches for a wider range of psychosocial or psychological treatments.

Healthy competition between centralized and localized options might improve them both—or lead to some optimal compromise. Mental health services delivered over a distance could develop a personal touch, and locally grown services could learn to systematically measure outcomes, monitor fidelity, and improve consistency. After all, modern statistics and experimental design began with traditional farmers trying to improve their harvests.

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