

## Commentary: Addressing the Gap Between Science and Practice in Children's Mental Health

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In the mid 1700s, a British naval surgeon discovered the cure for scurvy, which would often so decimate the crews of sailing vessels that they would have to terminate their voyages and return to port in order to re-outfit their ships in human resources. In spite of the severe human and economic consequences of scurvy, the simple dietary solution for it was not fully implemented across the British naval fleet and merchant vessels for another hundred years (Valente & Rogers, 1995). These events serve to illustrate the natural barriers that support resistance to the adoption of even the simplest and most powerful of innovations. The gap between science and practice appears to be a chasm that exists in many fields, but nowhere is it greater than in the field of children's mental health. In the past several decades, great progress has been made in the understanding and treatment of children's mental health, but the broad adoption and implementation of evidence-based interventions (i.e., the practice) continues to lag far behind the research (i.e., the science) that accounts for these advances.

However, there are emerging signs of hope that this gap may be closing to some degree. In the last several years, many important developments have occurred in the mental health field that may positively affect the welfare of at-risk children who are vulnerable to negative, destructive outcomes. For example, during the decade of the 1990s, there were numerous calls to reprioritize children's mental health needs and to examine critically generic strategies and methods by which this

important goal might be achieved. The U.S. Surgeon General's *Report on Children's Mental Health* (U.S. Department of Health and Human Services, 1999) resulted from a national forum in which critical issues, priorities, and needed actions were addressed by professionals, advocates, and consumers. A series of important legislative and policy directions designed to (a) improve children's mental health services and (b) refocus much stronger governmental action on early identification and intervention for children's mental health problems were incorporated into the report.

Secondly, Peter Jensen, M.D., former chief of the NIMH child psychopathology branch, founded the Center for Children's Mental Health at Columbia and also established *The Report on Emotional and Behavioral Disorders of Youth*, an influential volume for mental health professionals dedicated to the promulgation and adoption of evidence-based practices in children's mental health. As editor of the report, Jensen has identified and explicated criteria for judging evidence-based intervention approaches (see Jensen, 2001).

Finally, a seminal volume by Burns and Hoagwood (2002) has been published that describes the complex landscape of the community-based treatment of children experiencing severe emotional and behavioral problems. These authors provided a thorough and insightful analysis of the conditions, barriers, obstacles, and opportunities that mediate the design, delivery, and evaluation of effective interventions for high-risk children and their

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families within natural community settings. Burns and Hoagwood call for the development of a public health science that subsumes the related sciences of implementation and dissemination, and that will assist in finding the means to position evidence-based practices and services within community settings, sustain and support them over time, and identify the barriers that impede such positioning. Further, these authors urge examination of features of the practice environment that influence the clinician/client relationship and that have an effect on why some professionals are motivated to change and adopt new, proven strategies whereas others are not. They call for a new model of applied, real world research and practice that supports studies of the efficacy of new treatments within the contexts of the practice settings where the service is ultimately placed.

The article in this issue by Fantuzzo, McWayne, and Bulotsky (2003), presenting their conceptualization of a paradigm for conducting applied research in children's mental health, is an intriguing fusion of key principles and recommendations stemming from the above described developments and recommendations. Their model comes close, with perhaps a few exceptions, to meeting the profile of a new research paradigm in children's mental health as articulated by Burns and Hoagwood (2002). I believe it makes an important contribution to children's mental health in terms of the interface it presents between scientific research and the practical realities of involving teachers, peers, and parents as natural helpers—resource persons in the scaling up of effective intervention approaches. The psychologist working within community settings obviously has a key role to play in the implementation of such an approach and in coordinating the agencies, disciplines, and persons who participate in it. The authors make a persuasive case for the importance of applied interventions that: (a) address the known risk factors affecting the mental health status of children and (b) respectfully and appropriately involve critically important social agents (parents, peers, teachers) as partners in designing and delivering the intervention model. I believe these best practices will ultimately become

normative trends in the future of child mental health intervention approaches, especially within the context of schooling.

In introducing the conceptual framework for their model, the authors are to be commended for identifying the core values that define their approach and providing a context for the work to be presented (i.e., child-centered, partnership-based, and population-focused). They are to be commended also for their clear and detailed explication of these values in relation to applied interventions and the social agents who deliver them. This information provides an important context for applied mental health service delivery from which we can all learn. Finally, these values provide a foundational justification for the development of mental health services to address outcomes that are highly valued by parents and educators alike, such as self-regulation, friendship making, academic achievement, literacy, and the prevention of such toxins as bullying, interpersonal violence, relational aggression, and sexual harassment that are now rampant in many of our schools.

Fantuzzo et al. (2003) have carefully analyzed some of the risk factors that affect the psychological adjustment and well-being of young children, examined their prevalence within a known population of Head Start children, and demonstrated their effect on key outcome measures. In their analyses, child maltreatment emerged as a consistently negative influence on key child outcomes that affect their school success, psychological adjustment, and peer relations. This is an approach to community-based research that I hope will become normative in the future and I admire the authors for their groundbreaking work in this regard.

The enormous power of applied, evidence-based interventions that address influential, multiple-risk factors (e.g., poverty, crime, teen motherhood) is illustrated by the Nurse Home Visitation Model, developed by David Olds and his colleagues (see Olds, Henderson, Chamberlain, & Tatelbaum, 1986). This intervention is delivered during the first 2 years of life and prevents child maltreatment, improves parenting skills, empowers parents

as self-advocates, and reduces the likelihood of violent delinquent acts over a 20-year period compared to nonparticipating controls.

The conceptual model and approach presented by Fantuzzo and his colleagues incorporates many of the features of the Olds intervention and may have the potential to achieve similar, long-term outcomes. However, to realize a similarly powerful and enduring set of important outcomes, it will be necessary, in my view, for Fantuzzo et al. to broaden the risk factors (e.g., weak and incompetent parenting, lack of school readiness, adult approval for aggressive behavior directed at others, poor problem-solving skills, impulsivity, inability to regulate one's behavior, and so on) that the intervention addresses and to document carefully the fidelity of implementation with which the model is delivered across multiple sites and social agents. Further, this model and its effects should be extended and demonstrated on socially valid outcomes other than play behavior among peers. For example, such outcomes could include (a) recruiting and maintaining friendships; (b) developing literacy and prereading skills; (c) learning to control aggressive forms of peer-related, interactive behavior; and (d) developing the ability to forge satisfactory and adaptive adjustments with teachers and peers that are so important to school engagement, bonding, and success.

In terms of the cultural relevance, appropriateness, and sensitivity of intervention approaches in child mental health, the authors make quite a case for involving consumers at every stage of the process. As difficult as this accommodation can sometimes be in regard to the constraints it places upon the applied research and service delivery process, I applaud them for the manner and passion with which they make this case. However, I do not think that every intervention, to be considered culturally and/or developmentally relevant and appropriate, need be constructed from the ground up in the manner Fantuzzo et al. (2003) describe.

There are numerous existing applied interventions, which are very cost effective and either promising or proven in their impact, that could be effectively adapted and contextualized

for target populations for whom they were not originally developed. For example, Burns and Hoagwood (2002) have described an array of evidence-based interventions that meet this criterion or standard. In addition, Leff, Power, Manz, Costigan, and Nabors (2001) recently profiled a series of proven interventions designed for remediating school-based aggression that could be adapted for other subpopulations (e.g., Head Start, preschool children, ADHD students, oppositional-defiant youth, and so on). The First Step to Success early intervention program (Walker et al., 1998), which is one of the interventions profiled in their review, has been adapted for use with preschool children and also with Head Start programs. A strong federal priority currently exists to adapt proven interventions for appropriate use with underrepresented and minority populations. In fact, the Agency for Children, Youth, and Families is currently funding a series of such studies. Finally, Multisystemic Therapy (MST) (Henggler & Borduin, 1995) is a highly effective intervention developed for use with anti-social youth who are on a path to delinquency and are at elevated risk for recidivism. MST has been extensively adapted with considerable success for much younger populations, for drug abuse treatment and for preventing psychiatric hospitalizations of youth having severe emotional disturbance (see Schoenwald & Rowland, 2002).

The efficacy of the model presented by Fantuzzo et al. (2003) depends heavily upon the integrity of implementation, the consumer satisfaction of key partners and participants, and the demonstration of positive, longitudinal outcomes that persist across time and settings. It must also be carefully coordinated and heavily monitored for its potential to be realized. Future research on this model should address the critical determinants of the effect and acceptance of community-based intervention approaches such as this. Positive outcomes from such studies will determine the extent to which this model will be accepted and adopted by scientist practitioners, families, advocates, and school personnel. The welfare of vulnerable, at-risk children will provide the ultimate registry of how well these efforts succeed.

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