Clinicians treating children who have diseases, such as asthma or juvenile diabetes mellitus, or who are receiving cancer chemotherapy, have developed ideas about what psychological interventions may be most helpful to their patients. These beliefs about “helpful” interventions often influence what is provided for these children and, in turn, are often influenced by what is available in the clinicians’ particular medical settings. Additionally, problematic children or families may be given a “larger dose” of therapies available or believed to be helpful. Through this “try-it-and-see-if-it-works” approach, psychological interventions are sought by physicians for their patients. Typically, if resources are limited, psychologists are called to help with only the most resistant or problematic children/families. In most settings, nurses provide the mainstay of psychological support for patients (and for physicians). However, many nurses apply an intuitive approach to helping children and call for help when these efforts are not effective.

The review by McQuaid and Nassau of the state of the art according to the Chambless criteria provides a clear guide for clinicians on what interventions have been shown to be “well established,” “probably efficacious,” or “promising.” However, the paucity of well-designed studies is surprising, especially considering how long ago many of these types of studies were initiated. As the authors note, few studies demonstrate “well-established” interventions, and even these indicate that there is yet much to learn before major changes are made in the integrated psychobiologic care of children with asthma, juvenile diabetes mellitus, or cancer. As described by the authors, most studies have focused on main effects, with varied results. Either investigators did not consider potential moderating variables or the samples in these studies were too small to test meaningfully for interactions. With increasingly limited resources in the age of “managed care,” individual differences in responses to interventions become a salient issue and of practical importance (Barr, Boyce, & Zeltzer, 1994; Boyce, Barr, and Zeltzer, 1992; Zeltzer, Barr, McGrath, & Schechter, 1992). Thus, as the authors note, one of the key directions for future research is to design studies that will better address not only “what works better than what else” but also “who should get what” for optimizing positive outcomes. Unless the identification of individual differences is embedded in intervention studies, results will likely be diluted and not as useful to the clinician.

From an historical perspective, it appears that various psychological interventions were in fashion over time as the topic of study until newer, more “hip” interventions took their place. For example, intervention shifts took place spanning the spectrum from psychoanalysis to family systems approaches to relaxation training to hypnotherapy to social skills training, to name a few. However, the focus has been on testing an intervention strategy rather than on studying likely mechanisms of psychobiologic interface with subsequent development and testing of theory-driven interventions designed to affect this interface in very specific ways. For example, salient moderating variables on asthma severity, diabetic control, or chemotherapy-related...
nausea and vomiting might be gender, developmental period, temperament, ability to regulate focus of attention, and perceptions of control, to name a few. Based on identification of subgroups of children with likely groupings of factors contributing to their symptomatology, focused intervention studies could be designed that address more directly the underlying mechanisms contributing to the symptoms. Such targeted intervention studies, coupled with methods for identification of vulnerable subpopulations, would provide the most useful data for direct application into the clinical setting. In fact, outcomes-based clinical practice is more likely to be funded by health maintenance organizations (HMOs) and other health care management systems.

The authors of the review on psychological interventions for physical symptoms nicely highlight the need for psychological management strategies that can be integrated within medical management. They note that future studies need to shift their paradigm from the Descartian mind-body dualism, characteristic of earlier studies, to one that has a developmental psychosociobiologic perspective. For example, can a psychological intervention reduce the dose requirements of a pharmacologic agent? Can a stress-reducing intervention not only reduce self-reported perceived stress but also alter hormonal, cardiovascular, and stress-sensitive immune markers, (e.g., N-K cells)? If so, which of these outcome parameters shifts most closely in relation to the target physical symptoms and over what period of time? Are there critical periods in child development when certain interventions are more likely to be more powerful? What role and how invasive is the child’s ecosystem in perpetuation of illness-associated physical symptoms? For example, studies of acute medical procedure pain have demonstrated the salient effect of maternal anxiety on child anxiety and pain. Future studies might want to test the social support buffering effects of the family, the school environment, and the medical environment on physical symptoms in children with asthma, diabetes, or cancer.

The intervention studies reviewed by McQuaid and Nassau did not consider comorbidity symptoms as a factor that might have either diluted the effects of interventions or, conversely have been the major reason for the efficacy of the intervention. For example, was the intervention effective in a subpopulation because it reduced anxiety or altered depression? Similarly, if inadequate restorative sleep was the major contribution to severity of symptoms, was the intervention effective because it facilitated sleep onset and maintenance?

It seems to me that many pediatric clinics still operate within a purely medical rather than psychobiologic model (Bursch, Walco, & Zeltzer, 1998; Zeltzer, Bursch, & Walco, 1997). Medications become the mainstay of treatment for physical symptoms and these may change over time with clinical trials of newer agents. However, I believe that pediatric psychology will lead the way toward shifting the paradigm through the study of psychobiologic mechanisms of symptom production, identification of vulnerable subpopulations of children, and the testing of targeted psychological interventions integrated within the medical therapies of the time. While pilot studies are always needed for feasibility, potential negative effects, and preliminary efficacy, the Chambless criteria offer a path for the designing of intervention studies that can be directly applied to the clinical setting, especially if the studies are designed to facilitate focused, targeted interventions and effect sizes are clinically meaningful.

Received January 10, 1999; accepted January 11, 1999

References


