EDITORIAL

The role of developmental theory in prevention and intervention

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Despite the logical links that exist between the provision of psychotherapeutic interventions to children and adolescents and developmental theory and research, too few bridges have been forged between these realms of knowledge (Cicchetti, Toth, & Bush, 1988; Shirk, 1988). The reliance on adultderived guidelines for the classification of child psychopathology is but one example of the paucity of developmental theorizing in the field of psychiatric diagnosis. Because we have embraced frameworks rooted in adult psychopathology in order to classify childhood disorders, it is not surprising that we similarly have sought to apply principles derived from adult therapy to interventions with children and adolescents. Unfortunately, the "developmental continuity myth" of psychotherapy (Shirk, 1988) is likely to impede efforts to provide more theoretically guided, developmentally appropriate services to children and adolescents.

In fact, prevention efforts historically have been based in the areas of public health, epidemiology, and community psychology. Although the prevention programs emerging from these movements have been very important, little developmental influence has been present in the conceptualization, implementation, or evaluation of these initiatives. Similarly, although the psychoanalytic tradition and its

Our work on this special issue was supported by a grant from the Prevention Research Branch of NIMH (1 R01MH45027-01A1). application to child therapy certainly is rooted within developmental theory, empirically based developmental theory has been all but nonexistent in its incorporation into the design of approaches to child therapy.

Fortunately, the last decade has witnessed an increase in dialogue between basic researchers and those invested in providing developmentally guided prevention and intervention to children and adolescents. A major impetus in this regard has emanated from developmental psychopathology, an approach that advocates for a reciprocal interplay between normal developmental theory and findings derived from risk and psychopathological populations (Cicchetti, 1984, 1990a; Cicchetti & Toth, 1991; Rutter. 1986). As the interface between normal and abnormal development has become increasingly strong, the application of findings conceptualized within this genre to prevention and intervention efforts has begun to blossom. The value of applying a developmental psychopathology perspective to prevention and intervention efforts is captured by Sroufe and Rutter (1984), who stated that by

... thoroughly understanding factors that pull subjects toward or away from increased risk at various age periods, one not only acquires a deeper understanding of development but one also gains valuable information for primary prevention. (p. 19)

Of course, before the potential inherent in a developmental psychopathology ap-

proach to prevention and intervention could even begin to be realized, certain advances in our knowledge base of normal development and of risk conditions and psychopathology need to occur. We next highlight those achievements that we consider to be especially important.

As the power and influence of the behaviorist movement began to wane in this country, the 1960s ushered in an exciting period of several decades during which time the compelling theoretical ideas and experimental findings of Piagetian cognitive development dominated the field of developmental psychology (Cicchetti & Pogge-Hesse, 1981; Hesse & Cicchetti, 1982). Whereas Piaget's writings provided the impetus for and continue to stimulate many of the advances that have occurred in our understanding of cognitive growth, an unfortunate byproduct of this era was the relative neglect of other domains of development. So, for example, we possessed little information about the development of social and emotional processes and of the ways in which persons reasoned about social matters. Moreover, we knew virtually nothing about how various domains of the human mind interrelated, thereby precluding an in-depth understanding of the organization of normal and abnormal development (Cicchetti & Schneider-Rosen, 1984; Cicchetti & Sroufe, 1976; Emde, Gaensbauer, & Harmon, 1976). Much stimulating progress has been made over the course of the ensuing years, and we now know a great deal about the nonintellective aspects of the mind, including ways in which various ontogenetic domains such as emotion and cognition interrelate. In turn, this knowledge can be more easily assimilated by those seeking to intervene in cases of child maladaptation.

In addition to the advances that have been made in these vital aspects of developmental processes, the field has achieved major headway in charting the continuities and discontinuities of adaptive and maladaptive early functioning (see, e.g., Block & Block, 1980; Rutter, 1989; Sroufe, 1983). The results of these investigations have underscored the intricacy of the developmental

process, highlighted the importance of prevention and early intervention, and made us aware of the potential for positive or negative reorganizations at subsequent developmental periods despite the level of prior adaptation.

In the field of child and adolescent psychopathology, parallel achievements have enabled developmental psychopathologists to contribute to prevention and treatment efforts. Our knowledge of the incidence and prevalence rates of various child and adolescent risk conditions and disorders has increased (Angold & Costello, 1991; Costello, 1989; Institute of Medicine, 1989; Rutter, 1988). Likewise, our information on the etiology and longitudinal course of these highrisk conditions and psychopathological disorders has grown (Cicchetti & Toth, 1992; Robins & Rutter, 1990; Rolf, Masten, Cicchetti, Nuechterlein, & Weintraub, 1990). As a consequence, etiological models of disorder increasingly reflect the true complexity inherent in the emergence and development of pathology (e.g., Sroufe, 1989). Moreover, the burgeoning number of longitudinal investigations of the course of various disorders has provided clues for the processes and mechanisms underlying continuity versus change in disordered functioning throughout the life course.

In moving beyond general issues in normal and abnormal development, a developmental psychopathology approach to service provision warrants consideration of a number of areas. To begin, the hierarchically organized nature of development possesses important implications for prevention and intervention. Because the successful resolution of each stage-salient issue is marked by the integration and organization of its structures, domains, and contents, each issue of development is integrated and coordinated with subsequently emerging issues. Moreover, all stage-salient issues are life-span issues and as such evidence continued differentiation and organization. At each point of reorganization, the resulting disequilibrium causes the individual to be especially amenable to change. Whether the period of reorganization reEditorial 491

sults in vulnerability or positive adaptation is determined largely by the individual's success in negotiating prior developmental tasks. For example, vulnerability to maladaptation is exacerbated in those who have experienced failure on a previous stagesalient issue. Similarly, individuals with a history of successful resolution of stagesalient issues are more likely to deal adaptively with periods of reorganization. However, regardless of the quality of prior adaptation, an individual's level of functioning can change at any time during the life course. Because periods of transition offer opportunities for change, it might be especially important to target prevention and intervention efforts at these periods of reorganization. The provision of "booster services" during developmental transitions, especially for those individuals with a history of serious difficulties, also holds great promise for facilitating positive outcome.

The realization that ontogenesis is an integrated and complicated process, characterized by multiply determined pathways and outcomes that interact in a complex system of biological, psychological, and environmental factors, also underscores the need for interventions to attend to the developmental dimension. Specifically, considerations such as when (i.e., the timing) and why a disorder occurs, how long it persists, and the identification of the precursors to disordered functioning, all require a developmental approach to ensure that prevention and intervention strategies are timed and guided. In essence, to integrate potential compensatory factors successfully in an intervention, an in-depth understanding of an individual's level of developmental organization is necessary. Similarly, a developmental perspective requires that attention be paid to proximal and distal factors and processes that contribute to disordered outcomes. Thus, developmental psychopathologists may advocate a focus on subclinical indicators, such as how stage-salient issues are resolved and the integration and organization of various domains, as they try to prevent and treat risk conditions and disorders. The utilization of this approach should yield more rich and helpful information than that provided by research that focuses solely on distal outcome factors such as presence versus absence of a psychiatric diagnosis. We wish to stress that all prevention and intervention efforts must be sensitive to the child's developmental level and the changing meaning that problems and disorder have for children at different developmental levels (Toth & Cicchetti, in press).

Finally, the area of resiliency also holds great promise as an avenue for facilitating the development of programs of prevention and intervention, as well as for contributing to developmental theory (Masten, Best, & Garmezy, 1990). By examining and understanding the processes and mechanisms that contribute to adaptation in situations that more typically result in maladaptation, theoreticians and clinicians will be better able to devise ways of promoting positive outcome in high-risk populations (Cicchetti, 1990b).

In a recent article appearing in the American Journal of Community Psychology, Koretz (1991) emphasized the importance of conducting methodologically rigorous preventive interventions as tests of theory. An important avenue to pursue in this regard relates to the interface between unfolding developmental processes and intervention efforts. In particular, we believe that developmentally based preventive interventions may serve as a means for testing developmental theory and that, conversely, strategies of prevention and intervention can be based on normal ontogenetic principles. For example, because our knowledge of the link between the successful resolution of stage-salient issues and future adaptation is growing (Cicchetti, Toth, & Bush, 1988), the development of programs to prevent the emergence of psychopathology can benefit from our knowledge of the progression through these issues in nondisordered children. Similarly, empirical findings from the evaluation of preventive interventions can serve to affirm, challenge, and enhance theories of normal development (Cicchetti, in press).

The contributors to this special issue in-

corporate a developmental perspective into their approaches to prevention and intervention. The issue brings together a group of scholars who share a developmental viewpoint, though who often differ with respect to the theory that drives their work. We believe that this diversity is especially important for the growth of the field of developmental psychopathology as well as for progress in the prevention and treatment of childhood and adolescent disorders. In addition to the use of developmental theory, and despite differences in emphases, all contributors are committed to the integration of theory and research and to the application of this knowledge to problems of clinical import. The articles in this issue range from an emphasis on risk conditions

to the treatment of clinical disorders. Moreover, attention is directed to the promotion of competence on stage-salient issues as well as to the amelioration of risk and psychopathology. These foci are commensurate with goals articulated by innovators in the area of prevention (e.g., Koretz, 1991; Rolf, 1985).

In the future, it is likely that we will learn the most about the causes, course, and sequelae of disorders across the life span by charting normal developmental trajectories and incorporating this knowledge into the development of our approaches to prevention and intervention. We think you will agree that the articles in this special issue reflect an important step in this direction.

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