

CHAPTER 15

Cultural Diversity in the Development of Child Psychopathology

FELICISIMA C. SERAFICA and LUIS A. VARGAS

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To more deeply understand the role of culture in the emergence, persistence, and desistance of psychopathology among children and youth, this chapter examines cultural diversity in child and adolescent psychopathology and its development. Based on a selective review of recent comparative studies, we present a synthesis of cross-cultural and ethnic differences that stood out amid the similarities also found. We examine culture's role in child psychopathology and its development through an examination of cultural diversity. Our specific aims are (1) to review and synthesize the findings of recent comparative studies that examined cultural variations in the expression of symptomatology, prevalence, development, and correlates of psychopathology in children and adolescents; (2) to report related findings from ethnic and cultural studies that sampled only one population; (3) to identify conceptual and methodological issues identified in the studies reviewed; and (4) to suggest future directions for research.

A DEVELOPMENTAL-CONTEXTUAL PERSPECTIVE ON PSYCHOPATHOLOGY

The developmental approach to psychopathology, more commonly known as developmental psychopathology, asserts that because there is unity in development, the study of psychopathology or development gone awry in infants, children, and adolescents has to be based on knowledge of normal development and should involve the application of developmental principles. A corollary to this assertion is that research on development gone awry can enhance our understanding of normal development. Therefore, the field of developmental psychopathology focuses on the interplay between normal and abnormal development and on the relationship between deviant and typical forms of a behavior. Like other attempts to describe and explain psychopathology, the developmental approach seeks to understand the etiology, course, and prognosis of a specific

disorder. However, its interests extend beyond the identification of predisposing, precipitating, and maintaining factors or risk and protective variables. This approach also seeks to ascertain the internal and external factors that promote competency and resiliency in individuals. Most important, the developmental approach is concerned with describing the developmental sequence of a particular disorder and understanding the processes as well as mechanisms involved. Consistent with a transactional model of the developmental process, the emergence of psychopathology is conceptualized as occurring through a dynamic transaction with intra- and extraorganismic forces (Cicchetti & Cohen, 1995). Acknowledging these forces implies that developmental psychopathology views deviant behavior in context. Thus, it is congruent with a developmental-contextual perspective. Contexts vary; they may be intraorganismic or extraorganismic. An intraorganismic context is organic, involving biologically based characteristics (e.g., genes, brain, central nervous system) and an intrapersonal context involving personal characteristics (e.g., cognitions, emotions, personality). An extraorganismic context subsumes an interpersonal context involving social interactions and relationships (e.g., family, peers) and a superordinate context comprising variables that deal with aggregates of individuals taken as a unit (e.g., ethnic group, social class, culture; Wenar & Kerig, 2000). These different contexts may be considered separately for purposes of analysis, but they are really interrelated (Lerner, 1995). The focus of this chapter is on one type of superordinate context, namely, culture. A cultural perspective to developmental psychopathology necessitates that normal and abnormal development as well as typical and deviant forms of behavior be considered from the standpoint of both dominant mainstream culture and the minority cultures. A developmental-contextual approach is compatible with this perspective.

CULTURE

Culture refers to the designs for living in a specific habitat that have evolved among a particular group of people and are transmitted within and between generations (M. Cole & Cole, 2004). It refers to the entire way of life of a society including its values, beliefs, attitudes, norms, practices, language, religion, and institutions. These designs for living are represented through artifacts, actions, or symbols. North's (1990, p. 37) definition of culture as "a language-based conceptual framework for encoding and interpreting information that the senses are presenting to the brain" em-

phasizes its symbolic nature. There is shared meaning among those who have the same culture. Their view of the world and its people and how they think and make judgments in general or specific areas of life are filtered through a culturally based information system (Goed-nough, 1989).

The term "culture" is usually employed to designate the designs for living among individuals who, frequently but not always, share a common biological ancestry and, initially occupied a particular habitat, namely, an ethnic group. It is in this sense that the term is used in this chapter, though it is acknowledged that the term may also be extended to the values, beliefs, attitudes, norms, and practices common to members of a distinctive group identifiable through a shared characteristic such as gender, social class, sexual orientation, religion, or profession.

Assumptions about Culture

Assumptions about culture have implications for both the research enterprise itself and the applications of research findings.

Culture has an ecological context. The designs for living that constitute an ethnic group's culture are assumed to have evolved because they facilitated adaptation to the group's habitat at a particular time. Thus, the origins of an ethnic group's designs for living and their functions are tied to specific spatial, social, and temporal contexts. This implies that the adaptive value of a specific design for living is relative to context.

At any given time and context, cultural practices are likely to differ in their adaptive value and those that remain prominent in an ethnic group's cultural repertoire may not necessarily be the ones with optimal value for adaptation. It is therefore important to assess the current adaptive value of a cultural belief or practice in its contemporary context. Earlier, social scientists assumed that the cultural values, beliefs, and practices that survive are those that are optimally effective in facilitating adaptation. Contemporary researchers have challenged this assumption. According to Ellen (1982, p. 251), "Cultural adaptations are seldom the best of all possible solutions and never entirely rational." Using recent findings from cognitive science to bolster his contentions, Edgerton (2000) also argued that traditional beliefs and practices may persist not because they are optimally beneficial but because they generally may work well enough without further changes; they are retained in the cultural repertoire because they require the least effort and involve minimal risk. He also cautioned behavioral and social scientists

about assuming that any persistent traditional belief or practice in a surviving society must be adaptive. It would be more prudent to assume, he contended, that there is a continuum of adaptive value along which any belief or practice may fall anywhere. A belief or practice may simply be neutral or tolerable, or it may be beneficial to some members of a society while harming others, and sometimes it may even harm everyone.

Culture persists, transmitted from one generation to the next, but the adaptive value of specific cultural variables may change over time. Initially, it was assumed that the designs for living that make up culture persist because their ecological effectiveness is constant across time and space (Campbell, 1975; Harris, 1960; Kluckhohn & Leighton, 1962). However, contexts change over time and, consequently, the adaptive values of cultural beliefs and practices, even those that were optimally effective at one time, may also shift.

Culture is dynamic rather than static. Previous conceptualizations of culture assumed that it remains static as it is passed on intra- and intergenerationally. However, the nature of individuals and contexts changes over time, and culture becomes modified accordingly. Cultural practices can be altered within a generation, as evidenced by recent changes in American food preferences, or modified across generations. Even when an ethnic group remains in the same geographic context over time, changes can come about through the transactions of the group's members with one another or with members of other ethnic groups and with changes in the physical, social, and technological environments. Changes in the physical environment might necessitate modifications in the means of livelihood and, consequently, in the associated cultural practices. For example, in some areas of the world, polluted waters have made fishing a less lucrative source of income, thus necessitating an occupational change that may, in turn, result in modifications of certain cultural practices that evolved from a fishing economy.

Culture is mediated through social interactions. Initially, this occurs through the parent-child relationship and subsequently through other interpersonal transactions taking place in various ecological systems (Bronfenbrenner, 1977, 1979). Transmission occurs through both verbal and nonverbal modes of communications, directly and indirectly. Children learn cultural values and problem-solving strategies by listening to their mother reading folk tales or to their father and other male adults exchanging stories, but also through observation of adults' attitudes, feelings, and behavioral responses to specific events. Through adult didactic instructions or nonverbal reactions, children learn

what is permissible action and emotional expression and what is not, and later infer that there are group norms governing such actions and emotional expressions. From an early age, in addition to these intersubjective experiences, culture is experienced by the child through exposure to various types of media, schooling, and socialization avenues.

Cultural knowledge and practice are not uniformly distributed among members of an ethnic group. Because members of an ethnic group share common values, beliefs, and practices, it used to be assumed that these were uniformly distributed across members. Weisner (2000, p. 141) has disputed this assumption of cultural uniformity, stating that "cultures may have a clear central tendency and normative pattern but they are hardly monolithic and uniform." Within an ethnic group, there are usually subgroups based at least on geography and social class. Within these various subgroups, there may be differential transmission, translation, and implementation of core values and beliefs. Even among members of the same subgroup, there are individual differences in the extent to which they have absorbed cultural values, beliefs, and practices. These individual differences are the result of several factors, including individual characteristics, differential socialization experiences, and differences among their parents' interpretations or implementations of cultural prescriptions. To paraphrase Kluckhohn and Murray (1953), a member of an ethnic group may be like all members of that group, like some members, and like no other members. Cultural uniformity cannot be taken for granted. Cultural knowledge and adherence among members of an ethnic group is characterized by diversity amid unity.

Culture as an Explanatory Variable

Before elucidating the significance of culture for development and psychopathology, a discussion of the controversy regarding culture as an explanatory variable seems warranted. The concept of culture is most often used simply as a descriptive variable, that is, as a category, index, or marker that serves to describe and distinguish values, beliefs, attitudes, and norms of one ethnic group from another. But the concept has also served as a dependent variable and also as an independent variable. It is a dependent variable, for example, in a study of the effects of schooling on women's definitions of gender roles, whereas it has the status of an independent variable in quasi-experimental studies that, for example, examine women's responsiveness to schooling as a function of their ethnic group's gender role definitions. It is culture's research function as an independent or explanatory variable that has encour-

tered resistance (Garcia-Coll, Ackerman, & Cicchetti, 2000) and generated controversy.

Behavioral and social scientists are not always comfortable with the use of culture, however it is operationalized, as a causal explanation. Some would prefer to treat culture only as a descriptive variable or a dependent variable. Others who hold similar views think that, at best, culture may be conceptualized as a "tool kit" from which strategies for action can be selectively drawn for specific purposes (Patterson, 2000). There are several reasons for the unease that is evoked by cultural explanations. First, to those who construe culture as a distinctive product of a particular group of people, culture can be described and interpreted, but it should never be used to explain anything about the people who produced it because such explanations cannot be considered objective (Patterson, 2000). Second, scientists who are willing to consider culture as an explanatory variable are confronted by daunting conceptual and methodological issues. It is difficult to define culture, conceptually and operationally, even when it is disaggregated into its various components. Even when precise definitions are possible, cultural variables operate in a highly complex context, often interacting with a host of other influential variables such that it is difficult to isolate its effects. Furthermore, it is difficult to measure and quantify cultural variables. Psychometrically sound measures for many cultural variables do not yet exist. Moreover, prior attempts to identify cultural bases for behavior or social problems have yielded explanations that too often seem tautological, reductionistic, or static (Patterson, 2000). Third, there are cultural sensitivities to be considered. A search for the cultural bases of maladaptive behaviors can be construed as "blaming the victim" and might preclude changes in social policies and programs that can ameliorate those behaviors. Cultural explanations for maladaptive behavior might also offend ethnic pride. For these and other similar reasons, some scientists think that the safest approach is to describe culture or consider it as a dependent variable.

There is some truth to all of these arguments against treating culture as an explanatory variable. However, the conceptual and methodological problems noted are not unique to the study of culture. Definitional problems are not uncommon in the behavioral and social sciences, especially where relatively few empirical studies on the topic have been conducted. However, as progress is made in disaggregating culture into its various components and isolating it from confounding variables such as economic status, the task of defining and operationalizing cultural variables should become easier. Similarly, measurement and quan-

tification issues have been encountered in other areas and gradually resolved satisfactorily. Furthermore, the issue of complexity is a matter of conceptual clarification and methodological rigor. When there is some understanding of the different causal variables involved, adequate controls can be instituted to permit the isolation of the cultural variable from other variables or to at least examine the extent of its impact on the dependent variable as compared to other contributing factors. Identifying and disentangling the complex explanatory interplay between cultural and noncultural factors can be a stimulating research challenge. Granted that methodological improvements alone may not suffice to gain greater acceptance for the study of culture and its integration into mainstream psychology (Schweder, 1990, as cited in M. Cole, 1996), they are essential if we are to advance significantly in understanding the role of culture in human development and psychopathology.

In answer to those concerned with the possibility that if culture is found to have an effect, it will be concluded, erroneously, that culture determines a particular behavior, Goodenough (1989, p. 218) has made this rejoinder: "Biology helps explain human behavior but does not determine it. Similarly, culture helps explain behavior but it does not determine it either." Finally, cultural sensitivity on the part of researchers can help to overcome an ethnic group's concerns about research on its culture. Concerns about blaming the victim can be allayed by careful interpretation of the results and by using the research findings to advocate for policies and programs directed toward amelioration of any related maladaptive behaviors. A balanced program of research on culturally based values and practices that promote adaptive behaviors as well as maladaptive ones can identify ethnic group strengths that would be a source of ethnic pride.

In sum, the issues surrounding the use of culture as an explanatory variable can be resolved. Culture is so pervasive that not to explore its role as an explanatory variable is to ignore a potentially important source of variance in human behavior.

The Significance of Culture

If culture matters, how does it matter in regard to psychopathology? Culture's relevance to understanding psychopathology derives from two distinguishable but interrelated roles: first, its role in human development, normal or otherwise, and second, its role in shaping societal perspectives on psychopathology and its nature, causes, course, diagnosis, assessment, treatment, and prevention.

Culture and Development

The role of culture in normal development has been discussed at length by developmental scientists (M. Cole, 1996; Garcia-Coll et al., 2000). Even before a child is born, culture defines how the developing fetus is to be treated in utero and at birth, and such treatment has implications for the child's subsequent health and development. Culture designates who will serve as the primary caregiver and how other kin and group members will contribute to the child's care. It also prescribes the appropriate caregiving contexts for infants, children, and adolescents. Most important, culture establishes socialization aims, emphasizing those that are most consistent with cultural values. The child-rearing practices employed to achieve socially desired developmental outcomes are also linked to cultural values, attitudes, beliefs, and norms. These practices may facilitate or inhibit the development of cognitive, emotional, social, and other processes that have implications for the emergence of psychopathology and for the prognosis of a disorder. There is growing evidence that the emergence of specific forms of psychopathology is associated with disruptions in the normal development of certain processes. These disruptions may be largely biologically based in some instances (e.g., Autism); in other cases (e.g., depression), they may be primarily the result of the interaction between biological factors and contextual factors, including specific cultural variables. And in still other cases, culture may be the primary contributing factor. Culture also structures the risk and protective factors that promote or prevent the development of psychopathology.

Culture and Psychopathology

Just as culture defines what is considered normal behavior in a society, so does it specify what is construed as deviant behavior. It categorizes and labels what is considered problem behavior or psychological dysfunction. Through its influence on how the environment is structured, culture helps to determine which behaviors are adaptive and mentally healthy and which are not. Psychopathology may have its intraindividual origins, but how it is experienced, labeled, and expressed is subject to cultural influences. There are even idioms of distress and prototypical behavioral patterns that are unique to societies, cultures, and subcultures. Both culturally distinctive symptoms and culture-specific syndromes have been identified. Culture offers its own culturally congruent explanations for deviant behaviors and psychological disorders. The role of culture and its interaction with biological factors in defining abnormal behavior is evidenced in a case that Greenfield (2002) used to

illustrate how culture and biology are mutually adapted for survival. In this case, the daughter of an American couple, social scientists living among the Zinacantec Maya of Nabenchauk in Chiapas, Mexico, began to walk at 9 months, about 5 months earlier than Zinacantec norms. For the Zinacantec, walking at 9 months of age was not only abnormal, it was also dangerous to walk before understanding language. This danger arose from the fact that the Zinacantec houses always have an open fire in the center. Because of this, the Zinacantec assumed that walking at 9 months placed the American child at risk for falling into the fire and her parents now needed to be in a constant state of high alert and close proximity to the child to prevent her from either getting hurt or causing some kind of damage. This case highlights the point that psychopathology has a culturally constituted definition and is referenced usually by the norms of the host culture that frame symptomatology, impairment of functioning, danger to self or others, and so on within the context of the local culture. What is viewed by the Zinacantec as abnormal behavior (making the American girl a *monster* in their eyes) is viewed as normal or even *precocious* in her American parents' eyes. In multicultural contexts, both the host (local) and non-host (foreign) cultures must be considered in defining the nature, causes, course, diagnosis, assessment, treatment, and prevention of *psychopathology*.

Culture's role extends beyond the description and explanation of psychopathology. It influences the course of the disorder and its prognosis because it structures environmental responses to behavioral distress and problematic behavior. Culture specifies the degree of behavioral intensity or problem severity that must be present before an intervention is necessary. Culturally based mental health beliefs and attitudes determine help-seeking responses. Culture designates who may intervene. Last, culture organizes the modes of intervention.

Given the potential significance of culture, a developmental-contextual approach to psychopathology has to address certain questions:

1. Do cultures vary in the expression of psychopathology? Are some patterns of symptomatology or mental disorders more prevalent in certain cultures than in others?
2. What aspects of a given culture are related to high or low prevalence of specific disorders? How do these cultural variables exert their influence? Is the influence direct or indirect? If the latter, what are the mediating variables?
3. What aspects of a given culture moderate the influence of risk or protective factors? How?

4. What is the role of culture in the development of those processes (e.g., emotional self-regulation) that have been implicated in the development of specific disorders (e.g., anxiety or depression)?
5. What are the mental health beliefs and attitudes of a given culture? How do these beliefs and attitudes structure help seeking, diagnosis, treatment, and prevention?

In sum, culture's significance in the study of developmental psychopathology derives from its role in normal development and development gone awry, as well as its role in shaping societal attitudes, beliefs, and practices pertaining to diagnosis, assessment, treatment, and prevention of psychopathology. These two conceptualizations of culture's role bear some resemblance to the two models of cultural influence proposed by Weisz, McCarty, Eastman, Chaiyasit, and Suwanlert (1997), but there are some subtle differences, at least in scope. As currently conceptualized, the two roles may be broader than those of the problem suppression-facilitation model and the adult distress threshold model proposed by Weisz et al.

In the next sections, we examine the available research literature bearing on culture's dual roles, with emphasis on studies of children and adolescents from diverse cultures. It is hoped that this review of development and psychopathology in diverse cultures will broaden our understanding of the role of culture in normal and deviant development. Currently, this understanding is based mostly on theories and research that describe normal and deviant development of European and European American children from middle and lower socioeconomic classes. In these studies, many explanatory variables (e.g., parental beliefs and expectations, child-rearing practices, communication strategies) are actually cultural variables even though they are not identified as such. It is not the case that the study of culture's role in human development and psychopathology has been neglected, but rather that the role of culture has been studied yet not acknowledged.

CULTURAL DIVERSITY IN CHILD AND ADOLESCENT PSYCHOPATHOLOGY

The assumption that culture influences the development, diagnosis, assessment, and treatment of psychopathology is a long-standing one, but to date, the research literature on culture and psychopathology during infancy, childhood, and adolescence is sparse and fragmented. Most of the available data are derived from comparative studies. Al-

though the number of ethnic or cultural studies on adult psychopathology is rapidly increasing, this does not apply to child psychopathology. Developmental-contextual studies that attempt to examine the relationship between culture and psychopathology among children and adolescents are just emerging. Longitudinal studies are even rarer. Our review includes findings from both types of studies.

In the research literature, two terms are used in referring to research involving more than one ethnic group. The term "cross-cultural" is usually used to denote between-group research using samples from two or more countries or nations; the term "ethnic" is applied to between-group research involving different ethnic groups residing within the same country or nation. This seems an artificial distinction, for in both cases, the intent is to discover if there are culturally based differences in the phenomenon under investigation. However, to avoid creating further confusion, we follow this convention for designating research between ethnic groups.

CULTURAL VARIATION IN EXPRESSIONS OF PSYCHOPATHOLOGY

We begin our examination of the relationship between culture and psychopathology by asking the question, Are there cross-cultural or ethnic differences in the expression of distress or psychopathology? Such differences would denote cultural diversity in psychopathology. It is acknowledged that cultural variations in psychopathology may be found in affective, behavioral, or linguistic expressions of distress or in the content of disturbed cognitions and sensory experiences (American Psychiatric Association, 2000), but the study of these variations in children and adolescents and how they change with increasing age has been ignored. Systematic studies directed at identifying, classifying, and validating such variations among children or adolescents are exceedingly rare.

Expressions of Symptomatology

Some interest has been shown in cultural variations in the symptomatology of anxiety. Cross-cultural research has shown that anxiety and disorders of anxiety are universal, or at least evident in all human societies where their presence has been assessed, but there are cultural variations in the phenomenology, meaning, and forms through which distress is expressed and constituted as social reality (Good & Kleinman, 1985). For example, Asians and Latinos may be more likely than European Americans to express anxiety

through somatic and/or physiological complaints. This ethnic difference has been investigated in a number of studies involving college students or older adults but rarely among children or adolescents. The hypothesis that Hispanic children and adolescents are more likely than their European American peers to express anxiety through somatic and physiological complaints has been confirmed in some studies, albeit with qualifications (Pina & Silverman, 2004; Varela et al., 2004). The manifestation of ethnic or cultural differences in somatic or physiological expressions of anxiety was a function of the measure used (Pina & Silverman, 2004). Moreover, although non-Cuban Latino youth showed greater distress over anxiety-related symptoms than their European American and Cuban Hispanic peers, within the non-Cuban Latino group, those whose parents preferred Spanish as the assessment language evidenced greater distress over anxiety-related symptoms than their peers whose parents chose English (Pina & Silverman, 2004).

Linguistic Expressions

The finding that the language in which assessment is conducted is associated with within-ethnic-group differences in somatic or physiological expression of anxiety and the amount of distress shown over anxiety-related symptoms highlights the role of language in the expression of distress. Besides serving as a means of communication, language serves as a stimulus in that it evokes cognitions and verbal and behavioral responses with associated emotions and other internal states. For bilingual and multilingual individuals, an assessment conducted in the first language may be more effective at tapping earlier modes of conceptualizing and expressing distress, regardless of acculturation status. Language may facilitate certain modes of symptom expression and inhibit others, depending on the affect and experiences that became associated with these modes in the individual's past. For example, acculturated immigrant adolescent girls might swear or discuss sexual matters with ease in English, but may be unable to do so or at least are more uncomfortable doing so in their native language. Moreover, there are cultural variations not only in the lexicon of emotion but also in the elaborateness of the language available for describing certain emotions and emotional experiences (Manson, 1996).

Behavioral Expressions

Few studies of Conduct Disorder or substance use have explored cultural variations in the expression of these prob-

lems or the differential cultural bases of apparently similar forms of expression. A couple of sociological studies illustrate such variations and show how the expression of antisocial tendencies may be patterned after existing cultural practices. In a study of Asian American youth gangs, Chin (1990a, 1990b, as cited in Chin, Kelly, & Fagan, 1992) identified four types of gang victimization in the Chinese American community that could be construed as involving business intimidation: protection, extortion, forced sales, and "theft" of goods and services. Although these types of business intimidation may also be used by gangs in other ethnic groups, an ethnographic study by Chin et al. (1992) shows how the expression of antisocial tendencies may be patterned after existing cultural practices. In this study, 603 merchants were interviewed to identify patterns of extortion and other forms of victimization practiced on Chinese-owned businesses by Asian adolescent gangs of predominantly Chinese descent operating in three Chinese neighborhoods in New York City. These interviews yielded data about the prevalence of these different types of gang victimization, when they occurred, and the behavioral patterns involved. The last is of particular interest here.

In the Chinese community, protection money, also known as *po foo fay* (protection fee), *tor ti fay* (territory fee), or *heung yau chin* (incense oil money), is money paid by merchants to an individual, gang, or association that controls the area where the business is conducted. As practiced by Asian American adolescents in New York City, asking for protection money is patterned after the Chinese tradition of asking for blessings on a new endeavor. The custom has been adapted to become a way to obtain the "blessing" of those (i.e., gangs) who are in a position to disrupt commercial activities or damage business properties. It is usually initiated at the opening ceremony launching a business, when some gang members accost the owner and present their proposal.

Extortion money is also known as *cha chin* (tea money), *hung bao* (red envelope), and *lai si* (lucky money, literally "good for business"). The various names signify several typical Chinese patterns of gift giving on specific occasions (e.g., giving a red envelope containing money to family members, relatives, and even strangers during the Chinese New Year) that have been subverted into forms of extortion. The practice of asking for extortion money is a sporadic, spontaneous act committed by young gang members on an irregular basis, mostly on major holidays such as the Chinese New Year.

Forced sales or the practice of selling items to business owners at prices higher than their market value, usually

during Chinese and other holidays, was the most pervasive type of gang exploitation uncovered by Chin et al. (1992). The items sold are typically associated with holidays such as firecrackers or cards or, during the Chinese New Year, mooncakes during the Moon Festival, and Christmas cards or whiskey during the Christmas holidays. To emphasize the "cultural connection," teenage gang members sometimes add embellishments. For example, during one Chinese New Year, a teenage gang presented a merchant with a New Year card and asked him to pay \$180, adding that he would prosper during the entire coming year because the first digit denotes "one whole year" and the second digit is pronounced the same as the word "prosperity" in Cantonese.

"Theft" of goods and services involves the practice of gang members refusing to pay for or asking for heavy discounts on goods and services. In the Chinese community, this practice is called *saik pa wong fun* (eating the king's meal) or *tai pa wong hey* (watching the king's movie), with the perpetrator as the king who cannot be refused. This is essentially a power play, with the perpetrator's material gain only secondary to the symbolic meaning it conveys. However, by construing the interaction between the offender and the victim in the traditional Chinese practice of "reciprocal face-giving behavior," the interaction is normalized. The targets of this practice are usually owners of restaurants, bakery shops, barber shops, video rental stores, and other small retail businesses such as groceries and optical stores.

Young gang members who have grown up learning the traditional uses of these Chinese customs are introduced to their new functions in business intimidation by older gang members, including adults who themselves have adopted these practices from Hong Kong and Taiwan. The new applications of these traditional Chinese customs are taught through a combination of didactic instruction and modeling. Adherence is maintained through reinforcement and sanctions. Such socialization contrasts with what Moore and Vigil (1989) have reported about Chicano gangs. These investigators have argued that Chicano gangs do not promote crime but help with normal adolescent concerns around security, respect, and peer approval. In addition, they offer gender role identification and support, frequently providing street-culture role models when none are available at home, and helping the youth in managing identity conflicts (Vigil, 1988). These gang functions might also be true of other Asian American gangs and even of the one studied by Chin et al. (1992) but in the latter, tutoring in the subversion of cultural practices for ends that may be considered criminal also occurs.

Youth gangs from ethnic groups other than Asian American may also engage in the practice of business intimidation and in the specific types of gang victimization found by Chin et al. (1992). However, their modus operandi may differ from that of Asian American youth. The results of the Chin et al. study suggests that an exploration of what lies behind surface similarities in antisocial behavior will reveal culture-specific origins that are of interest to researchers seeking to understand how culture influences the expression of psychopathology. Such cultural variations may not greatly affect diagnosis or prevalence rates based on a particular nosology, but they may have implications for intervention.

CULTURAL DIVERSITY IN PREVALENCE RATES

A review of research on cross-cultural or ethnic differences in psychopathology is an appropriate starting point for examining the role of culture in psychopathology. Although any obtained cross-cultural or ethnic differences may be related to factors other than culture (e.g., socioeconomic status, a country's level of economic development), their presence at least suggests that further investigation might reveal biologically based predispositions associated with race or cultural influences among the etiological factors. Cross-cultural or ethnic differences might be manifest in symptom features or patterns of symptom organization; differences in prevalence rates for specific disorders may be due to culturally related differences in definitions of problem behavior, help-seeking patterns, child-rearing practices, or risk and protective factors. Evidence for both types of manifestation are reviewed next.

Cross-Cultural Differences in Prevalence Rates

Prevalence refers to presence or absence of a symptom or a disorder in a population. Prevalence rate or estimate denotes the proportion of individuals in a population who manifest a particular symptom, symptom cluster, or disorder at a given point in time (Verhulst & Koot, 1992). Differences in prevalence rates of a particular symptom or disorder in two or more population groups may reflect underlying differences between these groups. One of those differences could be an aspect of culture. For example, cross-cultural differences in prevalence rates in a particular symptom or behavior might reflect culturally-based attitudes or modes of responding toward it. The assessment of

prevalence rates is a commonly used approach in cross-cultural research on psychopathology. Findings from recent research are reviewed.

Symptomatology

In one of the early cross-cultural studies on psychological problems, M. C. Lambert, Weisz, and Knight (1989) found differences between American and Jamaican reports of children's behaviors reflecting overcontrol versus undercontrol. Problems relating to overcontrol were reported significantly more often for Jamaican youngsters, a finding that was interpreted as consistent with Afro-British Jamaican cultural attitudes and practices that discourage child aggression and other uncontrolled behavior and that foster inhibition and other overcontrolled behavior. The classification of children's behaviors as overcontrolled or undercontrolled has proven to be a useful organizing principle in programmatic cross-cultural research on children's psychological problems for Weisz and his collaborators (M. C. Lambert et al., 1992; Weisz & Sigman, 1993; Weisz et al., 1997).

Achenbach and Edelbrock (1981) also conceptualized children's problems around the issue of behavioral control, specifically as externalizing or internalizing behaviors. The largest number of recent cross-cultural studies on this topic have employed the Child Behavior Checklist (CBCL; Achenbach, 1991a, 1991b) and Youth Self-Report (YSR; Achenbach, 1991c) or translations of these measures. Most studies compared children from two cultures. From a review of published studies, Verhulst and Achenbach (1995) concluded that although some significant differences in problem scores did emerge from studies comparing two cultures, there was a relatively small range of scores derived from administering the CBCL in 11 cultures and its other versions, the Teacher Report Form (TRF; Achenbach & Edelbrock, 1986) in 6 cultures, and the YSR in 3 cultures. Furthermore, there were no significant cross-cultural differences in cross-informant correlations between CBCL, TRF, and YSR scores.

To extend the analyses beyond comparisons of two cultures and achieve a broader, integrated view of children's externalizing and internalizing problems across a greater number of cultures, Crijnen, Achenbach, and Verhulst (1997) conducted an analysis using "omnicultural composites" (Ellis & Kimmel, 1992) derived from CBCL, TRF, and YSR scores collected in the Commonwealth of Puerto Rico and 11 countries (Australia, Belgium, China, Germany, Greece, Israel, Jamaica, the Netherlands, Sweden, Thailand, and the United States). This analysis permitted a test of cross-cultural variations in Total Problem, External-

izing, and Internalizing scores. The results showed significant effects for culture and gender on Total Problem scores from the 12 cultures. Age or interaction effects were not significant. Scores of participants from Puerto Rico, Greece, and China were significantly above the omnicultural mean, whereas those of their peers from Sweden, Israel, Germany, Australia, the Netherlands, and Belgium were significantly below. Boys had higher scores than girls. Culture, but not gender, was also found to have an effect on Total Problem scores of adolescents from 9 cultures. Puerto Rican adolescents had the highest score, and their Swedish counterparts had the lowest. Culture, gender, and age had significant effects on both Externalizing and Internalizing scores, but interactions did not reach significance. For both types of problems, Greek and Puerto Rican participants had scores significantly above the omnicultural mean compared to their Swedish, Dutch, Australian, and Israeli peers, whose scores fell significantly below. Further analyses comparing Externalizing and Internalizing problems revealed small but significant cross-cultural variations, although this finding is qualified because of significant interactions between culture and gender in the analysis of scores from 12 cultures and between culture, gender, and age in the analysis of scores from 9 cultures. Age and gender variations showed cross-cultural consistency. With increasing age, Total Problem and Externalizing scores decreased, whereas Internalizing scores increased; boys had higher Total Problem and Externalizing scores but lower Internalizing scores than girls. Finally, cross-cultural correlations were high among mean item scores. Crijnen et al. are inclined to attribute the cross-cultural variations found to methodological issues, but they do acknowledge that some cultural differences in the relationship between Externalizing and Internalizing scores, as revealed by interactions between culture and age, might possibly reflect differences in how cultures deal with Externalizing problem behavior.

They also note that despite variations among the 12 cultures in the distinctions they make between masculine and feminine roles (Hofstede, 1994), there were consistent gender differences in parent-reported Externalizing and Internalizing problems. Crijnen et al. (1997) hypothesize that this gender difference might represent a "cultural universal" (Berry et al., 1982, cited in Crijnen, 1997).

Cross-cultural comparisons of CBCL factor structure have yielded either similarities (deGroot, Koot, & Verhulst, 1994) or mixed results (Hartman et al., 1999). However, more cross-cultural differences than similarities were found in a study that compared clinic-referred children from two cultures (American and Thai) differing along multiple di-

mensions and that used parallel measures valid for each culture, the CBCL and Thai Youth Checklist (Weisz et al., 1987). In this study, a few syndromes (e.g., somatic problems) showed concordance across cultures, but more did not. Cross-cultural differences have been reported for both broadband and narrowband syndromes (Weisz, Weiss, Suwanlert, & Chaiyasit, 2003).

Apart from research examining the externalizing-internalizing dimension, recent cross-cultural studies of symptomatology in children and adolescents have focused on symptoms denoting anxiety. Cross-cultural studies of anxiety in children have largely been driven by attempts to establish the cross-cultural validity of certain measures. In general, the results of these studies show that certain developmentally linked fears, such as a fear of loud noises or of being separated from the primary caregiver, occur in children from many cultures and at about the same age. Furthermore, the pattern and content of fears in children from different cultures vary as a function of gender. English or translated versions of the 80-item Fear Survey Schedule for Children-Revised (FSSC-R; Ollendick, 1983a, 1983b) have been administered to children in several countries. These include, besides the United States, Australia, China, Italy, the Netherlands, Northern Ireland, Portugal, Turkey, and the United Kingdom. In a review of these studies, Fonseca, Yule, and Erol (1994) found generally comparable results across countries, except for the score on Total Fear. Scores on Total Fear were lower for the Dutch sample and higher for the Portuguese sample. The observed difference in Total Fear scores between Dutch and Portuguese children has been interpreted as possibly reflecting Nordic and Latin cultural differences in emotional expression and control. Caution about this interpretation is warranted, though, because a gradation of Total Fear scores along the Nordic-Latin dimension was not observed among the various samples. Gender differences were also observed across countries. A content analysis showed both commonality and diversity in children's fears. Among American, Australian, British, Portuguese, and Turkish children, the most frequently endorsed fear was being hit by a car. For children from at least four of those countries, fears of not being able to breathe, a bomb attack or war, fire, a burglar, falling from a height, and death were among the top 10 fears. In at least three countries (Portugal, Turkey, United Kingdom), several items appended to the original 80-item FSSC-R revealed that many children reported fear of a parent's death, with endorsements ranging from 73% to 84%.

There are also ongoing attempts to validate the State Trait Anxiety Inventory for Children (STAIC; Spielberger,

Diaz-Guerrero, & Strelan, 1990). One study (Ahlawat, 1986) yielded similar factor structures between the original STAIC and an Arabic version. Test anxiety has also been examined cross-culturally, using the Test Anxiety Scale for Children (Sarason, Davidson, Lightfall, Waite, & Ruebush, 1960). In a sample comparing children from Chile and the United States, the Chilean students scored higher on test anxiety than the American students (Guida & Ludlow, 1989). Cross-cultural studies of depressive symptomatology in children and adolescents involving countries other than the United States and those in Europe are rare.

Categorical Diagnoses

The *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, text revision (*DSM-IV-TR*; American Psychiatric Association, 2000), considers the possibility that some mental disorders are culture-bound or specific to certain cultures. Examples of these are *Ataque de Nervios*, *Susto*, and *Mal Puesto* among Hispanics, *Hwa-Byung* among Koreans, *Taijin Kyofusho* among Japanese, *Koro* among Chinese, and *Voodoo death* among those of African descent. These culture-bound syndromes have been identified in adults. A review of their occurrence in children and adolescents is not possible because relatively little is known of their manifestations in these age groups. Instead, our review concentrates on the prevalence of those disorders for which cross-cultural data from child and/or adolescent samples are available.

A primary goal of many cross-cultural studies that have assessed prevalence rates for different mental disorders is to establish the universality of a disorder or at least to determine if a specific disorder can be identified in two or more countries using the same diagnostic criteria. Cross-cultural research on Autism falls into this category. After reviewing epidemiological studies conducted in several countries, including Canada, England, Iceland, Japan, and Sweden, and brief reports from some countries in Eastern Europe, Klinger, Dawson, and Renner (2003, p. 429) concluded that there is "remarkable consistency in reports of autistic symptomatology, intellectual abilities, and gender differences, and socioeconomic factors associated with autism."

Attention-Deficit/Hyperactivity Disorder (ADHD) is another disorder that has been identified in different countries (Barkley, 2003), albeit with varying prevalence rates. These prevalence rates range from as low as 2% in Japan (Kanbayashi, Nakata, Fujii, Kita, & Wada, 1994) to 20% for boys in Italy (O'Leary, Vivian, & Nisi, 1985), and even as high as 29% for boys in India (Bhata, Nigam, Bohra, & Malik, 1991). These differences in prevalence rates might be a function of differences in diagnostic criteria, sample

characteristics, or measures, but such wide variations also raise the question of whether these cross-cultural variations in ADHD prevalence rates reflect differing cultural attitudes and responses toward the behavioral indices of the disorder. Bird (2002) makes the same points in a recent review of epidemiological studies carried out in different cultural settings around the world, including North America (United States, Canada), Great Britain and several other countries in Western Europe, the Asia/Pacific Rim (China, India, Japan, New Zealand), Brazil in South America, and Puerto Rico in the Caribbean. There was remarkable similarity in the pattern of behaviors characteristic of the syndrome, but prevalence rates varied, ranging from as low as 1% to as high as 20%. Bird is more inclined to attribute these variations in rate to differences in the diagnostic system used, methods of ascertainment, and other methodological artifacts rather than culture. He concluded that although ADHD is conceptualized in similar ways in different cultures, differences in rates occur because of an informant effect produced by culturally based differences in the threshold deviance, among both clinicians and other informants. Although Bird does not think so, the differences in the diagnostic system used and the methods of ascertainment may themselves be illustrative of cultural differences.

Anxiety Disorders have also been examined recently in several countries. In community samples, prevalence rates for Obsessive-Compulsive Disorder (OCD) range from 3% for clinical OCD (Valleni-Basile et al., 1994), 4% in community samples of adolescents in Italy (Maggini, Ampollini, Garibaldi, Cella, Peqlizza, & Marchesi, 2001) and older adolescents in Israel (Zohar et al., 1992), and 19% for subclinical OCD (Valleni-Basile et al., 1994). Rates for Simple/Specific Phobia include a lifetime prevalence of 3.5% among adolescents in Germany (Essau, Conradt, & Petermann, 2000) to a 6-month prevalence rate of 9.2% in Dutch adolescents (Verhulst, van der Ende, Ferdinand, & Kasius, 1997). The Dutch sample also yielded a higher rate (6.3%) of Social Phobia than the 1.1% found in a New Zealand sample (McGee, Feehan, Williams, & Partridge, 1990). In addition, a lifetime prevalence rate of 1% for Panic Disorder was found among the Dutch adolescents (Verhulst et al., 1997).

The paucity of cross-cultural research on depressive symptomatology is also true for research on mood disorders in children and adolescents, despite the fact that both have been studied extensively in adults from a cross-cultural perspective. In this respect, cross-cultural research on childhood depression parallels that on childhood Schizophrenia.

Potentially, cross-cultural research has the most to offer for understanding the relationship between culture and psychopathology. The comparative studies reviewed here show that a conceptualization of problem behaviors along the externalizing-internalizing dimension can be employed usefully in different cultures. Furthermore, they reveal that certain mental disorders, notably Autism, ADHD, and Anxiety Disorders can be identified in several cultures, albeit with some variation in prevalence rates. In other words, they provide information about the occurrence and frequency of symptomatology or disorder. They also demonstrate the consistency of a gender difference in pattern and content of symptomatology. Whether this gender difference is culturally based has yet to be determined. Last, they indicate that certain categories of the *DSM* nosology (e.g., Autism) and certain measures developed for American samples (e.g., CBCL, FSSC-R) can be successfully used in other cultures. Beyond these, the findings do not offer much more toward elucidating cultural influences on psychopathology. One reason is that most of these studies were not designed to explore cultural influences but to test the cross-cultural generalizability of a particular conceptualization of psychopathology or to test the usefulness of a specific measure in other cultures. In addition, methodological variations in data collection from several cultures may be confounded with cross-cultural variations, thus making it difficult to arrive at any conclusions regarding cultural influences (e.g., Crijnen et al., 1997). This difficulty can be overcome in future cross-cultural studies through the use of similar sampling techniques and other data collection methods across sites. Another possible reason is that the studies reviewed employed an *etic* approach, applying concepts and measures derived from one culture to another culture presumably different from the first. The term, *etic*, refers to concepts and methodologies that are universal whereas the term, *emic* applies to those that are group-specific or culture-specific. Berry (1969) distinguished two types of *etic*: an *imposed etic* when universality is assumed and a *derived etic* when universality has been demonstrated by research. Often, the culturally based rationale for the cross-cultural comparison was not clearly articulated. Furthermore, except for a few studies that added items to the FSSC-R, little was done beyond translations to modify or add measures that might reveal cultural differences. To date, cross-cultural research on psychopathology may be characterized as a search for universals or, at least, for cross-cultural validity of nosology and measures.

Preliminary studies using an *emic* approach or the combined use of *emic* and *etic* approaches might prove more illuminating about the role of culture in psychopathology.

For example, because items on a measure may already represent one level of abstraction from a set of behaviors, different sets of behaviors may underlie an identical response from respondents in different cultures. This implies that direct observations, one-to-one interviews, and focused groups may be needed, along with standardized tests, to detect cultural influences. Moreover, where cross-cultural variations in patterns of symptomatology or prevalence rates did emerge, there were few efforts to examine possible cultural correlates or, at least, the cultural lens through which behavior was viewed that produced differences in rates. Obtained prevalence rates reflect the child's actual behavior and the lens through which it is viewed by others within the same culture (Weisz et al., 2003). In sum, this set of studies accomplished an important first step toward understanding the role of culture in psychopathology. Epidemiological studies and measurement construction are necessary, but not sufficient. Other, more critical steps have yet to be taken.

Ethnic Differences in Prevalence Rates

Empirical studies on ethnic differences in symptomatology and psychiatric disorders among American ethnic minority children and youth have increased in recent years, although still far fewer than the number of studies on European American children or even ethnic minority college students and older adults. The samples used in these studies are also larger in size, no longer limited to convenience samples, and even include probability samples. The available studies have been conducted mainly among the four major ethnic minority groups: African Americans, Asian Americans and Pacific Islanders, Hispanics or Latinos, and Native Americans. Before proceeding with this review of recent empirical studies involving these four ethnic minority groups, it should be mentioned that there are two other important potential sources of scientific data on cultural influences on adaptation, development, and psychopathology. One is the excellent programmatic research on psychopathology among Puerto Ricans residing in Puerto Rico (and therefore not considered an American ethnic minority group) conducted by Bird, Canino, and their colleagues (e.g., Canino et al., 2004). This review will not attempt a thorough coverage of their work but does review those studies that included Island Puerto Ricans in a study of mainland Puerto Ricans and other American ethnic minority groups. The other source is the emerging body of empirical studies on newly arrived immigrant and refugee ethnic groups from Eastern Europe and the former Soviet Union and from several African countries (e.g., Birman, 2005). Relatively

few of the latter have focused on prevalence rates for different kinds of symptomatology or categories of psychiatric disorders, so they will not be reviewed here. In the future, studies of these newly arrived ethnic groups will broaden our scientific database on cultural influences on development and psychopathology.

The preceding review of cross-cultural research on psychiatric symptomatology in children and adolescents suggests that in many cultures, psychological problems can be usefully organized along the externalizing-internalizing dimension, so our review of ethnic differences in psychopathology will be organized likewise. Also, for the sake of coherence, our review is limited to those few disorders that have received the most attention, resulting in a cluster of related studies: Conduct Disorder and substance use/abuse among the externalizing disorders and Anxiety Disorders and depression among the internalizing disorders. For each of these topics, the presentation begins with ethnic differences in symptomatology, followed by ethnic differences in disorders and, if available, data on comorbidity. Then data from noncomparative studies (i.e., studies that looked at only one ethnic minority group) that are consistent or inconsistent with the observed differences are discussed. Within-group differences are examined when pertinent data are available. Finally, the course or development of the disorder is described, again depending on the availability of data. Also for each topic, findings concerning African Americans are presented first, followed by those for American Indians, Asian Americans/Pacific Islanders, and Latinos.

Externalizing Problems and Disorders

Behavior can be conceptualized along a continuous dimension ranging from covert to overt, internal to external, or inhibition to action. Following this view of behavior, problem behaviors can be classified as externalizing or internalizing problems or syndromes. This dimensional approach to the classification of problem behaviors has received strong empirical support, most notably from research conducted by Achenbach and his collaborators (e.g., Achenbach & Edelbrock, 1981; Achenbach, Howell, Quay, & Conners, 1991). Externalizing problems refer to problem behaviors that involved acting out or under-controlled behavior such as aggression, anti-social behaviors, and opposition. Correspondingly, disorders characterized by symptoms that are externalizing problems are considered externalizing disorders. In this section, we chose to review two externalizing problems and disorders for whom prevalence rates from epidemiological studies are available: conduct problems and

disorders, as well as substance use and substance-related disorders. Because there are many studies of substance use and substance-related disorders, our review is limited to those that studied American Indians because these topics seem to have been investigated proportionately more than any other mental health-related topic in this population and the number of available studies allowed for a more comprehensive view of the problem and its progression.

Conduct Problems

According to Elliott, Huizinga, and Ageton (1985), minority status is associated with antisocial behavior in the United States, with elevated rates of antisocial behavior in African Americans, Latino Americans, and Native Americans. Conduct problems, particularly antisocial behaviors and substance use, of ethnic minority children and youth have received a great deal of attention from researchers. However, although many of the studies included large numbers of ethnic minority participants (e.g., African Americans), ethnicity was not included as a variable in the data analyses. Among those that were specifically interested in ethnic differences, several early studies employing community or clinical samples of children and/or adolescents have yielded some ethnic differences in symptomatology (e.g., Costello, 1989; Velez, Johnson, & Cohen, 1989). However, studies that controlled for sex, age, socioeconomic status (SES), or referral status, particularly those employing large national samples, revealed few or no ethnic differences in antisocial behavior among European, African, and Latino American children (Achenbach & Edelbrock, 1981; Achenbach, Howell, Quay, & Conners, 1991; Lahey et al., 1995).

Conduct Disorders

Data from the Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) study (Lahey et al., 1996; D. Shaffer et al., 1996) were used by Bird et al. (2001) to determine the prevalence of Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), and various levels of antisocial behavior, as well as their correlates, in three ethnic groups: Latinos, subdivided into Island Puerto Ricans and Mainland Latinos, African Americans, and Mainland non-Latino, non-African Americans. All groups were representative samples of four geographically and ethnically diverse communities. The prevalence rate for CD was significantly lower in the Island Puerto Rican sample than in the African American sample. Significant differences in prevalence rates for ODD also emerged: The three ethnic groups on the mainland had higher rates than the Island Puerto Ricans. Bird et al. (2001) also examined the preva-

lence rates for five levels of antisocial behavior representing a hierarchy of seriousness/severity. Again, the three mainland ethnic groups showed higher rates than the Island Puerto Ricans, specifically for level 3 (e.g., lying, disobedience) and level 4 (e.g., damaging property, attacking someone). At first glance, these lower prevalence rates for CD, ODD, and levels of antisocial behaviors seem inconsistent with the Crijnen et al. (1997) finding that among children from 12 cultures, Island Puerto Ricans showed the highest prevalence rate for Externalizing scores. Methodological differences, particularly in sampling, measures, testing procedure, and translation, may largely account for the apparent inconsistency.

Substance Use

Surveys of large samples have yielded reliable information about substance use among American Indians. Plunkett and Mitchell (2000) compared reports on substance use obtained from American Indian high school seniors who participated in the Voices of Indian Teens study (1993, as cited in Plunkett & Mitchell, 2000) with those from non-Indian high school seniors who participated in the Monitoring the Future study (Johnston, O'Malley, & Bachman, 2000, 2001). They found that lifetime substance use among American Indian youth was significantly higher than that of non-American Indian youth for two substances, marijuana and cocaine, whereas non-American Indian youth had significantly higher lifetime use of inhalants and cigarettes. Furthermore, American Indian youth reported significantly higher 30-day use for five (marijuana, cocaine, stimulants, alcohol, and barbiturates) of seven substances assessed than did their non-American Indian peers.

Within-group differences in substance use among American Indians may exist. A study of psychological adjustment among American Indians (Gray & Winterowd, 2002) showed that American Indian students residing in a rural but nonreservation area reported average or below-average levels of health risks, including substance use. However, this study did not include a control group, so it merely suggests a hypothesis that has still to be verified in a study with a better research design. Within-group differences in substance use as a function of region have also been reported for American Indian youth. Plunkett and Mitchell (2000) performed a geographic analysis of their data on substance use from American Indian and non-American Indian teens. This analysis revealed regional variations in patterns of substance use: American Indian youth reported significantly higher rates of more lifetime substance use items in one region; in another region, it was non-American Indian youth who reported significantly higher lifetime

substance use. Controlling for region, American Indian youth rates were significantly higher on only three of the seven substances.

A more comprehensive picture of American Indian youth use of substances, with implications for developmental psychopathology, is provided by a study of trends in drug use among American Indian adolescents attending schools on or near Indian reservations in the United States (Beauvais, Jumper-Thurman, Helm, Plested, & Burnside, 2004). Using data from reliable and valid school-administered drug use surveys given every year for 25 years (1975–2000) to representative samples of Indian youth living on reservation and data from non-Indian youth participating in the Monitoring the Future study, Beauvais et al. compared the two groups on lifetime prevalence, use in the past 30 days, and proportions at high risk and at moderate risk and subjected the differences to proportion tests. They found that, in comparison to non-Indian youth, the reservation Indian youth had elevated levels of drug use for most illicit drugs from 1975 to 2000. However, the trends showing increases and decreases over time were similar for the two groups. A comparison of trends among those who engaged in moderate and high use showed that the number of youth in the moderate category varied over time, whereas the number in the high category remained relatively constant.

The sequence of substances used by American Indian adolescents has also been studied. Novins, Beals, and Mitchell (2001) reported that the predominant sequential pattern of use of different classes of substance among a large sample of American Indian adolescents is consistent with a stage theory that was proposed for other ethnic groups. According to this theory, adolescents start with alcohol, then use marijuana, then other illicit drugs, and progress to the use of cocaine. A survey of 1,562 high school students in 1993 (Novins et al., 2001) revealed that 35% of the participants who were using alcohol and marijuana reported using alcohol first, a sequence consistent with stage theory. However, 75% of youth who had used three or more substances reported a sequence of first use that was inconsistent with stage theory. Thus, although overall, a general pattern of using alcohol, marijuana, and/or inhalants prior to the use of cocaine and other illicit drugs emerged, it also appears that alcohol, marijuana, and inhalants are all initiating substances for American Indian youth. Variations in the sequences of first use were a function of gender, age of first substance use, community, and number of classes of substances use. In another study, Novins and Baron (2004) assessed the risk of substance use and progression of substance use in American Indian adolescents ages 14 to 20 years who participated in two or

more consecutive waves of a longitudinal study conducted between 1993 and 1996. They found that the risk for initiating use of any substance accelerated in early adolescence and peaked at age 18. The risk for progression from use of alcohol, marijuana, and/or inhalants to the use of other illicit drugs (e.g., cocaine) increased over the first 4.5 years after initiating substance use, then diminished in subsequent years. Adolescents who initiated substance use with marijuana or inhalants were more likely to progress to other illicit drugs than their peers who initiated substance use with alcohol. Novins and Baron also reported that the risk of substance use initiation and progression varied across the four participating communities and by the season of the year.

Substance-Related Disorders

Using the Diagnostic Interview Schedule for Children (DISC) Version 2.1C (Shaffer et al., 1988 as cited in Beals et al., 1997) and following criteria in the *Diagnostic and Statistical Manual*, third edition, revised (*DSM-III-R*; American Psychiatric Association, 1987), Beals et al. (1997) assessed the prevalence of psychiatric disorders among 109 American Indian adolescents, *M* age = 15.6 years, living in a Northern Plains community. Prevalence rates were reported based on the diagnosis-specific impairment criteria. The use of such criteria, they argue, is a step toward cultural validity because it places the symptoms in an environmental context and it more closely approximates the clinical diagnostic process in which the clinician incorporates multiple factors (including degree of impairment and culture) into the assessment. Twenty-nine percent (29.4%) of the sample received a diagnosis of at least one psychiatric disorder, 16.5% qualified for a single diagnosis, and 12.9% met criteria for comorbid disorders. Those diagnosed for substance use disorders made up the largest group (18.3%), followed by those diagnosed for one or more of the disruptive behavior disorders. Alcohol dependence/abuse, marijuana dependence/abuse, and substance dependence/abuse ranked among the five most common specific disorders. Comorbidity was not uncommon: More than half of those with a disruptive behavior disorder also qualified for a substance use disorder, and more than half of those with depressive disorders had a substance use disorder.

Beals et al. (1997) did not include a comparison sample in their study, but they compared their data with those obtained in previous studies (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993; Shaffer et al., 1996) whose participants represented other groups, including European Americans. When compared to the adolescents in the

MECA study (D. Shaffer et al., 1996), American Indian adolescents exhibited substance use/dependence disorders. Similarly, when compared to the adolescents studied by Lewinsohn et al., they demonstrated statistically significantly higher 6-month prevalence rates for lifetime prevalence of alcohol abuse/dependence disorder. In addition, the American Indian sample had a significantly higher rate of comorbidity between substance use disorders and disruptive behavior disorders.

Costello, Farmer, Angold, Burns, and Erkanli (1997) examined the 3-month prevalence of *DSM-III-R* psychiatric disorders, the social and family risk factors for these disorders, and met and unmet needs for mental health care in a representative sample of European American and American Indian children ages 9, 11, and 13 years living in southern Appalachia. They found that American Indian children had a slightly lower overall prevalence of psychiatric disorders than the European Americans, an ethnic difference that, according to the investigators, was largely accounted for by different rates of tic disorders in 9-year-old boys. They also reported an ethnic difference in substance use. Although substance use was low in both ethnic groups, at 13 years of age, significantly more American Indian than European American children reported recent use of alcohol. Furthermore, comorbidity of substance use and psychiatric disorder was higher in the American Indian sample. Comorbidity among American Indian youths (ages 13 to 18 years) identified as having a substance abuse disorder has also been reported by Fiskenscher and Novins (2003). They found that 74% of 89 American Indian adolescents receiving treatment for substance abuse also met full *DSM-IV* criteria for Conduct Disorder based on their responses to the Diagnostic Interview Schedule for Children, Youth Version, and the Composite International Diagnostic Interview. Conduct Disorder was common among both boys and girls in this sample of American Indian adolescents, but the specific antisocial behaviors displayed and the relationships to other psychiatric disorders varied by gender.

Despite the use of different methodologies, both the Beals et al. (1997) and the Costello et al. (1997) studies indicate that American Indian adolescents engage in higher rates of substance use and exhibit higher rates of psychiatric comorbidity. This ethnic difference is present at 13 years of age (Costello et al., 1997) and is also manifest in 15-year-olds (Beals et al., 1997). These findings from different samples suggest that once substance-related disorders emerge in early adolescence, they may persist and remain relatively stable in subsequent years. A prospective longitudinal study could verify this or reveal other devel-

opmental trends. Survey data on trends in drug use among American Indian youth show that there is a decrease in late adolescence and young adulthood, but this may not be the case for those whose substance use during early and/or middle adolescence is severe enough to meet the criteria for a *DSM-IV* substance-related disorder.

Internalizing Symptoms and Disorders

Internalizing problems are those problem behaviors that reflect internal distress that is not directly expressed in overt action but indirectly through social withdrawal, anxiety, somatic complaints, or depressed mood. Internalizing disorders are those disorders whose primary symptoms consist of internalizing problem behaviors including the different anxiety disorders, posttraumatic stress disorders, and mood disorders. Most studies of internalizing symptoms or disorders among ethnic minority children and adolescents deal with anxiety symptomatology or disorders and, to a lesser extent, with depressive symptomatology or unipolar depression.

Anxiety Symptoms

As was the case in cross-cultural research, symptoms denoting anxiety in ethnic minority children and youth have received a relatively large share of researchers' attention. Ethnic differences in fear or anxiety have been found in several studies, suggesting that ethnicity or a factor related to ethnic membership is associated with reported levels of fear or anxiety. In a study of a clinical sample, Last and Perrin (1993) found that African American children tended to score higher than their European American peers on the FSSC-R (Ollendick, 1983a, 1983b). Neal, Lilly, and Zakis (1993) also used the FSSC-R to assess the change and stability in the fears of African American children from primarily working-class and low-income families and their European American counterparts. Overall, the children's reported fears were relatively stable over a 2-week period, but African American children's fears were less stable than those of their European American peers. Follow-up assessments (Neal & Knisley, 1995) did not reveal ethnic differences in the rank order that children assigned to their fears; across ethnicity, sex, and grade, the top-ranked fears were those involving possible harm to self or others. Neal and Knisley did not report any ethnic differences in total mean FSSC-R scores across the three assessments. However, they did note that correlational analysis of FSSC-R scores over time showed a significant difference in the stability coeffi-

clients of African American and European American children from the original to the 12-month assessment. Over 12 months, African American children's total fear scores showed greater stability than European American children's. The stability of total fear scores also varied as a function of sex and time of reassessment. Boys' total fear scores were more stable than those of girls, but only from the original to the 5-month assessment. For boys, the mean total fear scores decreased after a 5-month interval from the first assessment but increased from the 5-month to the 12-month administration. For girls, the mean total fear scores decreased from the original to the 5-month administration but remained essentially the same from the 5-month to the 12-month assessment. Stability also varied as a function of grade. For younger children, the mean total fear score decreased from the original to the 5-month administration and increased from the 5-month to the 12-month assessment. For older children, mean total fear score decreased from the original to the 5-month assessment but remained relatively the same from the 5- to the 12-month administration.

Data on anxiety sensitivity in African American children come from a study by S. F. Lambert, Cooley, Campbell, Benoit, and Stansbury (2004) that examined the psychometric properties of the Children's Anxiety Sensitivity Index (CASI; Silverman, Fleisig, Rabian, & Peterson, 1991) in a sample of African American children in grades 4 and 5. Because the aim of the study was to assess the psychometric properties of the CASI, there was no comparison group, but results of prior studies provided some basis for comparison. The mean level of anxiety sensitivity among African American children in the S. F. Lambert, Cooley, et al. sample was higher than that found in European American children by Silverman et al. (1991) and among African American adolescents examined by Ginsburg and Drake (2002). However, anxiety level was comparable to that obtained by Rabian, Embry, and McIntyre (1999) in an ethnically diverse community sample (64% African American). Unlike in previous studies of African American adolescents (Ginsburg & Drake, 2002; White & Farrell, 2001), no sex differences were found by S. F. Lambert, Cooley, et al. The lack of sex differences may be due to differences in age, socialization, and/or context.

Some differences in anxiety symptomatology have been found between European American and Asian American children. Shore and Rapport (1998) examined the structure and developmental pattern of fearfulness in an ethnoculturally diverse sample of 385 children, ages 7 to 16 years, living in Hawaii. They reported a significant effect for eth-

nicity on FSSC-R scores. None of the interactions was significant. Between-group comparisons showed that European American children were less fearful than children from Asian (i.e., of East Asian descent, such as Chinese and Japanese Americans), Filipino, and Hawaiian backgrounds. They had significantly lower FSSC-R Total scores than Asian Americans, Filipino Americans, and Native Hawaiian children. Specific subscale scores also differed significantly among the ethnic groups. European Americans scored lower than Asian Americans, Filipino Americans, and Native Hawaiians on all seven subscales, but only some of these subscale ethnic differences were significant. European Americans' subscale scores on fears of danger, death, and animals differed significantly from those of Native Hawaiians and Asian Americans but not in comparison to those of Filipino Americans. European Americans also did not differ significantly from Native Hawaiians in Anticipatory Social Fears scores. Filipino Americans had significantly higher scores on Anticipatory Social Fears than all the other groups. Consistent with earlier findings, fearfulness, whether indexed by total scores or prevalence scores, was greater in girls than in boys. On both indices, younger children also demonstrated more fearfulness than older ones.

Some ethnic differences between European American children and adolescents and their Latino counterparts have also been reported. Using a Spanish translation of the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) deemed culturally sensitive, Varela et al. (2004) examined the reporting of anxiety symptoms among Mexican, Mexican American, and European American children ages 10 to 14 years ($M = 11.1$). As expected, Mexican and Mexican American children reported more physiological anxiety symptoms and more worry symptoms than European children. Mexican and Mexican American children did not differ in physiological symptoms or worry/sensitivity. A subsequent analysis that controlled for scores on the Lie scale, SES, and age of child yielded similar findings. Mexican children endorsed more items on the Lie scale of the RCMAS than did Mexican Americans and European Americans. The two American ethnic groups did not differ from one another on the Lie scale.

In one study, ethnic differences in anxiety symptomatology did not hold up after corrections for experiment wise error were applied. Pina and Silverman (2004) examined the clinical phenomenology, somatic symptoms, and perceptions of anxiety-related somatic/physiological symptoms as distressing among 6- to 17-year-old Latino and European American youth. Latino participants were either

of Cuban descent or not. All participants had been administered the Anxiety Disorders Interview Schedule for Children and, based on *DSM-IV* criteria, received a primary diagnosis of Anxiety Disorder. The types of Anxiety Disorder differed; the most common was Separation Anxiety Disorder (SAD), followed by Specific Phobia, Generalized Anxiety Disorder, Social Phobia, and Panic Disorder. Preliminary analyses comparing Latinos and European Americans failed to yield significant differences in scores on the FSSC-R and STAIC but showed a significant ethnic difference in scores on the RCMAS, which disappeared in a subsequent analysis that applied Holm's modified Bonferroni correction. When the Latino sample was further subdivided into Cuban American and non-Cuban American, then compared with European Americans, significant differences in STAIC-T scores emerged, but these, too, did not hold up after Holm's modified Bonferroni correction was applied.

Pina and Silverman (2004) did find ethnic differences in somatic symptoms. These investigators used CBCL somatic T scores and RCMAS Physiological scale scores as indices of somatic symptoms. European Americans and Cuban Americans had significantly lower CBCL somatic T scores than the non-Cuban Americans, a difference that remained even after applying Holm's method. This difference also emerged in a subsequent analysis that included the parents' choice of language (English or Spanish) for the assessment. No significant differences in RCMAS Physiological scale scores were found initially, but when the Latino parents' preferred language for the assessment was included in a subsequent analysis, among the Latino youth whose parents chose English, the non-Cubans had higher RCMAS Physiological scale scores, a difference that disappeared after applying Holm's modified Bonferroni correction. The results of this study suggest that the CBCL may be better than the RCMAS at detecting ethnic differences in somatic symptoms. Pina and Silverman also examined parental reports of somatic symptoms. Parents of European American and Cuban American youths reported their offspring as having fewer somatic symptoms than did parents of non-Cuban American youth.

The degree to which anxiety-related somatic/physiological symptoms are found distressing or aversive by Latino versus European American youths was also investigated by Pina and Silverman (2004). It has been suggested that in addition to expressing distress and worry as somatic/physiological symptoms, Latino youth might at the same time be distressed further by the presence of this symptomatology. For example, a child who is experiencing anxiety-related somatic symptoms might say, "My stomach hurts so much, I worry that I might be very sick." According to Pina and

Silverman, the distress evoked by somatic symptoms is akin to the construct of anxiety sensitivity (Reiss, 1997) in the anxiety research literature. In their study, distress over anxiety-related somatic signs was operationalized as Total scores and Disease Concerns scale scores from the Childhood Anxiety Sensitivity Index (CASI; Silverman et al., 1991). European Americans reported significantly lower CASI Total scores and CASI Disease Concerns scores than non-Cuban American youths. Furthermore, exploratory analyses that included Latino parents' language choice as a variable showed that Cuban American youths whose parents chose to have the assessment administered in English reported significantly less distress associated with anxiety-related somatic/physiological symptoms than non-Cuban American or Latino youth whose parents chose the assessment in English. Among the Latino youth whose parents preferred the assessment in Spanish, Cuban Americans reported significantly more distress than non-Cuban Americans. These findings remained statistically significant even after correction for experiment wise error was applied.

Pina and Silverman's (2004) findings that Latino and European American youths with anxiety disorders differ significantly in terms of somatic/physiological symptoms and distress over these symptoms are consistent with those found in a community sample of adolescents (Weems, Hayward, Killen, & Taylor, 2002) and adults (Novy, Stanley, Averill, & Daza, 2001). Furthermore, they show that among Latino youths, anxiety-related somatic/physiological symptoms and the degree of distress associated with these symptoms vary as a function of ethnocultural group and parents' choice of language for their assessment.

In addition to showing ethnic differences in total and subscale scores on measures of anxiety symptomatology, studies have also revealed some ethnic differences in the structure or patterns of organization of anxiety. Whereas previous research with European American children had shown that the FSSC-R has five factors (e.g., Ollendick, Yule, & Ollier, 1991), an exploratory factor analysis on the data collected by Neal et al. (1993) revealed that a three-factor solution provided the best fit for the data from African American children. The three factors were (1) fear of death, danger, and small animals; (2) fear of the unknown and things that crawl; and (3) medical fears. An ethnic difference in the factor structure of the FSSC-R was also reported by Shore and Rapport (1998). These investigators revised the FSSC-R to make it suitable for children residing in Hawaii, then examined the reliability, validity, and factor structure of the revision, the Fear Survey Schedule for Children-Hawaii (FSSC-HI), and compared it to the FSSC-R and FSSC-II. They found that a seven-factor solu-

tion provided the best conceptual fit for the data; six factors were similar to those identified in earlier versions of the FSSC, but the seventh was not. This unique factor reflected children's social conformity fears.

An ethnic difference in the factor structure of the CASI has also been reported. Exploratory analysis of CASI data from African American children has yielded a different factor structure than that obtained from European American children by Silverman et al. (1991). S. F. Lambert, Cooley, et al. (2004) found that for the CASI data from their sample of African Americans, two factors, Physical Concerns and Mental Incapacitation, provided the best fit in a conceptually meaningful way, whereas Silverman et al. reported that a hierarchical structure with three or four first-order factors (Physical Concerns, Mental Incapacitation Concerns, Control, Social Concerns) best fit their CASI data. More recently, Silverman and her colleagues (Silverman, Goodhart, Barrett, & Turner, 2003) reported that a confirmatory analysis of CASI data from across several studies yielded support for a hierarchical model with a single second-order factor and four lower-order factors (Disease Concerns, Unsteady Concerns, Mental Illness Concerns, Social Concerns). These ethnic differences in factor structures suggest that culture influences not only the expression of anxieties, concerns, fears, and worries but also their cognitive patterns of organization.

Anxiety Disorders

Ethnic differences in Anxiety Disorders have also been explored. The evidence on ethnic differences in Anxiety Disorders between African American children or adolescents and their European American peers is mixed. An ethnic difference was found in one study that included relatively large community and clinical samples, but other studies using clinical samples only have found no evidence or limited evidence. In a study that included community ($n = 2,384$) and clinical ($n = 217$) samples, Compton, Nelson, and March (2000) found ethnic differences in the patterning of Anxiety Disorders that were consistent across the two samples despite the large sample size difference. In the community sample, both preadolescent and adolescent African Americans endorsed more symptoms of SAD and fewer symptoms of Social Phobia than their European American peers on the Multidimensional Anxiety Scale for Children. European Americans reported lower Separation Anxiety and higher Social Phobia. Similar results were obtained from the clinical sample.

Last and Perrin (1993) examined *DSM-III-R* Anxiety Disorders in a clinical sample of African and European American children. They did not find any ethnic group dif-

ferences in age, sex, duration of disorder, or lifetime history of Mood Disorder. However, there was a trend for African American children to report a history of Posttraumatic Stress Disorder, whereas European American children showed a trend toward more frequent reports of school refusal and higher diagnostic severity ratings. The investigators raised the possibility that the trend's failure to reach an acceptable level of statistical significance might have been due to the African American sample ($n = 30$) being much smaller than the European American one ($n = 139$). Beidel, Turner, and Morris (1999, 2000) compared African American and European American children with Social Phobia with respect to clinical presentation and treatment outcome. They found only one significant ethnic difference: European American children had higher scores on the Social Phobia and Anxiety Inventory for Children (SPAIC; Beidel, Turner, & Morris, 1995). Ferrell, Beidel, and Turner (2004), however, failed to find ethnic differences in Social Phobia and related symptoms (depression, loneliness, neuroticism, and state-trait anxiety), social skills, or social anxiety in a sample of 39 European American and 19 African American children referred for treatment of Social Phobia. With respect to diagnostic criteria and severity of the disorder, the two ethnic groups presented similar symptoms and degree of functional impairment. Both groups also showed significant improvement on self-report measures, parental reports, and clinician evaluations of Social Phobia and other aspects of psychopathology. Ethnic differences, however, were manifested in treatment outcomes, as indexed by clinical significance and responder status among the 29 children who completed treatment. At the end of treatment, 80% of the African American children but only 63% of their European American counterparts no longer met criteria for Social Phobia, a statistically significant difference. There was also an ethnic difference in treatment responders within the two groups, but in a direction opposite to that found for meeting Social Phobia criteria. Treatment responders were defined a priori as those meeting two criteria: posttreatment scores of less than 18 on the SPAIC and a rating of 8 or 9 on the Children's Global Assessment Scale (C-GAS; D. Shaffer et al., 1983), by an independent evaluator. Fifty-eight percent of European Americans met both criteria, whereas only 30% of African Americans did, a statistically significant difference. Because the two ethnic groups had virtually identical SPAIC scores, the observed ethnic difference was based primarily on C-GAS ratings by a clinician. The investigators suggested that the differential clinician ratings could be interpreted as indicating that the improvements shown by African Americans on the SPAIC were not

yet reflected in their behaviors or that there was a difficulty in judging problem severity when the observer and the person being observed came from different ethnic backgrounds.

Few studies have examined Anxiety Disorders among American Indians. Costello et al. (1997) reported that SAD was the most common Anxiety Disorder for both American Indian and European American youths living in Appalachia. Although rates for SAD were slightly higher for American Indians, especially girls, they were really similar for the two groups.

The only data on Anxiety Disorders among Asian American children and adolescents come from studies that used the Revised Child Anxiety and Depression scale (RCADS; Chorpita, Yim, Moffitt, Unemoto, & Francis, 2000), which measures symptoms associated with *DSM-IV* criteria for Anxiety Disorders and depression. Each RCADS subscale comprises empirically derived items. The total scale yields an internally consistent factor structure that corresponds to *DSM-IV* criteria for Social Phobia, separation anxiety, Panic Disorder and Agoraphobia (PDA), OCD, Generalized Anxiety Disorder (GAD), and depression (Chorpita et al., 2000).

Within the framework of the tripartite model of anxiety and depression (Clark & Watson, 1991), Austin and Chorpita (2004) examined temperament, anxiety, and depression in five ethnic groups of children and adolescents residing in Hawaii. In general, the results supported the tripartite model, but significant mean-level differences among ethnic groups were found for several specific anxiety dimensions. Native Hawaiians scored significantly higher on separation anxiety than their Filipino, Japanese, and European American counterparts. Both Native Hawaiians and Filipino Americans scored significantly higher on PDA and OCD than both Japanese Americans and European Americans. In addition, Filipino Americans scored significantly higher on Social Phobia than did European Americans. Last, Chinese Americans scored significantly higher on Social Phobia than Native Hawaiians and Filipino Americans. The investigators also examined the percentage of each ethnic group with clinically elevated scores on each of the six subscales of the RCADS (Chorpita et al., 2000). The percentages of elevated scores on the GAD subscale were fairly similar among the ethnic groups, but they were more variable on the other anxiety subscales. On both PDA and Separation Anxiety, Native Hawaiians and Filipino Americans had significantly higher percentages of clinical elevation than Chinese Americans, Japanese Americans, and European Americans. Significant ethnic differences were not found for

percentages of elevated scores on GAD, OCD, and Social Phobia. Austin and Chorpita interpreted these ethnic group differences in Anxiety Disorders as suggesting that factors outside of the tripartite model might explain the observed differences. Cultural norms and expectations might be one of those factors.

Data on Anxiety Disorders in Latino children comes from a study by Ginsburg and Silverman (1996), who compared Latino and European American youth ranging in age from 6 to 17 years. They found that Latino children were more likely to present with a primary diagnosis of SAD. Latino parents also rated their children as more fearful than did European American parents.

Depressive Symptomatology

Early research on ethnic differences in depressive symptomatology and mood disorders produced mixed results. As Roberts, Roberts, and Chen (1997) reported in their review of this literature, some studies reported that minority adolescents showed higher levels of depression and others found lower levels of depression (Doerfler, Felner, Rowling, Raley, & Evans, 1988). Still other studies found no ethnic differences at all (Kandel & Davies, 1982). Furthermore, variability among studies in the ethnicities sampled and the measures employed made it difficult to draw any firm conclusions from the findings.

Few studies have investigated depressive symptomatology in middle childhood among American ethnic minorities. Of those that did, a study of African and European American children in grades 3 to 5 revealed that a significant interaction between ethnicity and sex characterized the frequency of depressive symptoms (Kistner, David, & White, 2003). African American boys reported more depressive symptoms than European American boys, whereas the African American and European American girls had comparable levels. Sex differences in depression varied as a function of ethnicity. Among African Americans, boys were more depressed than girls, but among European Americans, girls were more depressed than boys.

The ethnic difference in depressive symptomatology noted during the third- through fifth-grade years may not necessarily persist in later years. D. A. Cole, Martin, Peeke, Henderson, and Harwell (1998) assessed depression and anxiety symptoms yearly in two cohorts of African Americans and European Americans from grades 3 to 5 and grades 6 to 8. African American children showed more symptoms of depression and anxiety in grades 3, 4, and 5 than did their European American peers. However, ethnic differences obtained from assessments conducted in grades 6, 7, and 8 did not reach a statistically significant level.

This finding raises the possibility that the role of ethnicity in depression may change over the years. Rushton, Forcier, and Schectman (2002) present some evidence suggesting that this may be the case. In an epidemiological study of depressive symptoms among adolescents who participated in the National Longitudinal Study of Adolescent Health, they found that ethnic minority youths (as well as females and older adolescents) were more likely to report depressive symptoms on the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) than other participants at baseline, but race/ethnicity did not predict the manifestation of depressive symptoms 1 year later.

Perhaps different factors are associated with ethnic differences in depressive symptomatology at different ages. Some support for this hypothesis is provided by a longitudinal study (Gore & Aseltine, 2003) that examined changes in depression in a diverse urban sample over a 2-year period, beginning in the senior year of high school. This study showed that African Americans and Hispanics had higher scores on the CES-D scale than European Americans and Asian Americans. It also revealed that different factors were associated with these ethnic differences. College attendance accounted for the difference in depressive symptomatology between Asian Americans and African Americans or Latinos; the difference between European Americans and African Americans or Latinos was explained by the greater prevalence of problems in relations with peers and parents among the two ethnic minority groups.

Efforts to understand the link between ethnicity and depressive symptomatology include attempts to examine ethnic differences in depressive symptomatology associated with certain developmental transition points. In a study whose main aim was to assess ethnic differences in the association between pubertal status and symptoms of depression in three age groups of African, European, and Latino American adolescents, Hayward, Gotlib, Schraedley, and Litt (1999) found that among the gender/puberty status groups in their sample, African Americans did not show the same increases in depression symptomatology on the Children's Depression Inventory (CDI; Kovacs, 1985) from pre- to postpuberty that prior studies of European Americans had reported, whereas the Caucasian and Hispanic girls in their sample did. Hayward et al. interpreted this finding as suggesting that pubertal status is a better predictor of depressive symptoms than chronological age for European American girls, but not for their African American counterparts. Their findings, however, have to be taken as provisional because they were derived from a cross-sectional rather than a longitudinal sample. Ge et al. (2003) also ex-

amined changes in symptoms of depression associated with puberty in a sample of African American children assessed when they were approximately 11 years of age and again at approximately age 13. The results showed that pubertal effects varied as a function of gender and age. Among girls, early maturation was associated with higher levels of depressive symptoms at Time 1 and again at Time 2. Early maturing boys showed higher levels of depression at age 11 but not at age 13 years. Boys who experienced accelerated pubertal growth over time were more likely to have elevated levels of depression. This study provides partial support for the hypothesis that pubertal status is associated with depression in girls, but as there were no other ethnic groups involved, it does not settle the issue of whether pubertal status is better than chronological age at predicting depressive symptomatology in European American girls than in their African American counterparts (Hayward et al., 1999). Moreover, whether or not one finds a relationship between pubertal status and depression in African Americans may be related to other factors, such as depression in childhood. A. Shaffer, Forehand, and Kotchick (2002) conducted a longitudinal study of the correlates of depressive symptomatology in African American children (ages 6 to 11 years); they found that depressive symptoms predicted future adjustment problems.

Depressive symptomatology and mood disorders among American Indian children and youth have received relatively much less attention than have alcohol use, conduct problems, substance use, or smoking. Earlier, it had been reported that depression was the most common diagnosis for adolescent girls seeking help at the Indian Health Service mental health outpatient clinics (Beiser & Atneave, 1982). It has been hypothesized that the high rates of learning problems, Conduct Disorder, substance abuse, and running away among American Indian youth are consequences of depression (Choney, Berryhill-Paapke, & Robbins, 1995). Depression has also been considered a risk factor for suicide in this population. There are, however, conceptual and methodological issues that have yet to be resolved before culturally valid studies of depression can be undertaken. For example, the fact that the term "depression" cannot be directly translated into the Navajo language raises the issue of conceptual equivalence for that group. Also, studies that have examined the structure of depression in Native American samples have yielded findings that differ somewhat from those obtained with European American samples. Dick, Beals, Keane, and Manson (1994) examined the factor structure of the CES-D scale in a sample of American Indian adolescent students at a boarding school. They found that the depressed and somatic factors

were highly correlated and suggested that these two factors be collapsed into a single factor. In a more recent attempt to examine the structure of depression among American Indian youth, Rieckmann, Wadsworth, and Deyhle (2004) administered the CDI, two scales (Scale 2 and the Depressive Content Scale) from the Minnesota Multiphasic Personality Inventory, and the *DSM-IV* Questionnaire for Depression, a measure developed specifically for this study, to a random sample of 14- to 20-year-old Navajo youth stratified according to gender and grade (10th, 11th, and 12th). In this sample, the mean CDI total score was 10, slightly less than the cut-off score of 11 for determining depression (Kovacs, 1985). However, 14% of the participants exceeded the CDI cut-off score of 20 suggested by Kovacs (1992) for use with unselected or general samples. The model that best fit the data was a one-factor depression model that included four observed variables from the *DSM-IV* Questionnaire, total CDI score, and the Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A) Content and Clinical scales. The *DSM-IV* Questionnaire had the highest loading (.84) on the depression factor, followed by the CDI (.73) and MMPI-A Content (.68). The MMPI-A Clinical scale had the lowest (.28) loading. The investigators noted that among American Indian youth, symptoms of depression may also be manifested as stomach aches, other medical ailments, or even spiritual discontent and lack of harmony and balance, which may not be captured in the European American conceptualization of depression.

High rates for suicide or suicide attempts, often considered a correlate of depression, have been reported among American Indian youth. Recently, Freedenthal and Stiffman (2004) explored within-group differences in suicide rates as a function of geographical residence. Interviews of a stratified random sample of urban and reservation American Indian adolescents revealed that although urban and reservation youth reported comparable rates (14% to 18%) of suicide attempts, one-fifth of urban youth reported lifetime suicidal ideation, whereas one-third of reservation youth did. Urban youth had fewer psychosocial problems. Multivariate analyses conducted separately for each group failed to show common correlates of attempted suicide.

Studies of depressive symptomatology among Asian Americans are relatively few.

Using a 16-item scale abbreviation (Lin, 1989) of the CES-D, Greenberger and Chen (1996) assessed depressive symptomatology in a sample of 171 early adolescents and 297 late adolescents from Asian American and European American families. Ethnic differences did not emerge in the early adolescent sample; both ethnic groups reported

having a depressive symptom only once or twice a month. Within-group differences surfaced, however, in the Asian American group. Asian American early adolescents in the first or immigrant generation reported more symptoms than did their peers who were born in the United States. In the late adolescent group, Asian Americans reported significantly more frequent symptoms of depression than did European Americans. Furthermore, among the late adolescent Asian Americans, scores on depressive symptomatology did not differ significantly as a function of generational status. A microanalysis of depressive symptoms revealed significant ethnic differences on 4 of the 16 CES-D items. Asian Americans reported with greater frequency feeling "My life has been a failure." On average, Asian Americans reported feeling this way slightly more than once or twice in the past month, whereas the frequency for European Americans was midway between "never" and "once or twice." Asian Americans also indicated more disabling symptoms ("everything was an effort") and more difficulty in coping with distress ("could not shake off the blues" or "had trouble keeping my mind on things").

Also using the CES-D, Edman et al. (1998) assessed depressive symptomatology in Filipino Americans and European Americans ages 14 to 19 years who were from rural and small towns in Hawaii. No ethnic differences were found. The few Filipino American adolescents who reported having suicidal thoughts had moderately high to very high levels of reported depressive symptoms. Consistent with prior studies, females had higher CES-D scores. Edman et al. (1999) also examined the factor structure of the CES-D among Filipino adolescents. Two factors were found to provide a reasonably good fit to the data: Factor I was a combination of depressed affect, somatic-retardation, and interpersonal items; Factor II was composed of the remaining four items denoting positive affect. The combination of depressed affect and somatic symptoms in Factor I was interpreted as providing support for previous findings regarding an overlap between these two variables among Asian Americans. The loading of interpersonal items on Factor I is more unusual and, according to the investigators, suggests that interpersonal factors were not distinguished from depressed affect in this sample of Filipino adolescents.

As a first step in developing a reliable and culturally valid measure of depression in Korean Americans, Choi, Stafford, Meininger, Roberts, and Smith (2002) administered the *DSM* Scale for Depression (DSD; Choi et al., 2002) to a community sample of Korean Americans, ages 11 to 13 years, and compared their findings to the response

patterns of Korean and European Americans who participated in the Teen Life Changes Survey. Overall, Korean Americans had significantly higher depression scores than their European American peers. A correlational analysis of depression scores and scores for related constructs (loneliness, self-esteem, coping, social support, mastery, and somatic symptoms) showed the highest correlation to be between depression and somatic symptoms.

Information on symptoms of depression among Latino children comes from a methodological study and a meta-analytic study. In a study that examined the cross-ethnic equivalence of measures of negative life events and mental health (CDI, Child Hostility Scale, and the Global Self-Worth Scale) among 8- to 14-year-old Latino and European American children, Knight, Virdin, Ocampo, and Roosa (1994) found that the former scored higher on the CDI than the latter. The authors interpreted this ethnic difference to be a function of SES differences between the two ethnic samples, but they did not attempt an analysis that controlled for SES. A meta-analytic study, however, provides stronger evidence that the prevalence of depressive symptomatology may be higher in Latino youngsters than among their African American and European American peers. A meta-analysis performed on 310 samples of children and adolescents (ages 8 to 16; $N = 61,424$) by Twenge and Nolen-Hoeksema (2002) revealed that Latinos had significantly higher CDI scores than African Americans and European Americans. The mean scores of the latter two groups did not differ significantly from one another. The main and interaction effects of SES were not significant. Ethnicity did not have a significant effect on the stability of CDI scores, but gender did. For all three ethnic groups, girls' depression scores stayed steady from age 8 to 11 and then increased between ages 12 and 16. Boys' CDI scores were stable from ages 8 to 16 except for a high CDI mean score at age 12. Girls' scores were slightly lower than boys' during childhood, but girls scored higher beginning at age 13.

More studies of ethnic differences in depressive symptomatology and diagnosis have focused on adolescents. Depression in Mexican adolescents has been the focus of programmatic research by Roberts and his collaborators (Roberts & Chen, 1995; Roberts, Chen, & Solvitz, 1995; Roberts & Sobhan, 1992). Roberts and Sobhan reported that in a national survey of 12- to 17-year-olds, Mexican Americans reported more depressive symptoms on a 12-item version of the CES-D than did their peers of European, African, or other Latino origin. Males of Mexican descent had the highest rate. Their female counterparts

also showed high rates of depressive symptomatology, but to a lesser extent than did the males. Roberts (1994, cited in Roberts et al., 1997) found that middle school students of Mexican descent showed significantly higher rates of depression on the 20-item CES-D and the Weinberg Screening Affective Scale than their counterparts who were of European descent. Further analysis of the same data by Roberts and Chen revealed that adolescents of Mexican origin exhibited significantly more depressive symptomatology and suicidal ideation than the adolescent descendants of Europeans. The highest rates were found among females of Mexican origin. In both ethnic groups, depressive symptomatology and suicidal ideation were strongly related.

Siegel, Aneshensel, Taub, Cantwell, and Driscoll (1998) assessed the effects of race/ethnicity and gender in a multiethnic sample composed using a three-stage area probability sampling frame. Irrespective of socioeconomic status, Latinos reported more symptoms of depression than their European American, African American, and Asian American counterparts. Siegel et al. also investigated whether pubertal development influences depressed mood in a similar manner in gender and race/ethnicity groups. Advancing puberty was associated with depressed mood only among females, but the timing of pubertal changes, relative to one's peers, was related to depressed mood among both males and females and among Latinos.

Depressive symptomatology has been found among rural as well as urban Latino adolescents. In a study of 240 rural Latino adolescents, ages 15 to 20 years, Katragadda and Tidwell (1998) found that 33% of their sample showed moderate to severe levels of depressive symptomatology, and an additional 17% had mild depressive levels on the CES-D scale. Birth order and number of brothers were significantly related to depression. Gender was an important predictor of depressive symptomatology, as was self-esteem. Higher stress scores were also related to higher levels of depression.

Latinos have also been found to differ significantly from their counterparts in other ethnic groups in the prevalence of depression and alcohol use. Guiao and Thompson (2004) assessed the prevalence of depression, alcohol use, and suicidal behaviors in a random sample of 3,310 12- to 19-year-old females of Latino, African, American Indian, Asian, and European ancestry. Measures included the CES-D, number of drinks each time alcohol was consumed in the past year, and a composite measure of suicidal behaviors. Latinos were found to be at significantly higher risk for adolescent depression than the European Americans, and at higher risk for alcohol use than the African Americans and

Asian Americans. There were no significant ethnic differences in risk for suicidal behaviors. Latino middle school students may also be at greater risk for depression and substance use. Kelder et al. (2001) found depressive symptoms and substance use to be associated in a large sample of middle school students who were largely non-White and predominantly (59% to 63%) Latino.

The prevalence of depressive symptomatology in adolescents of Afro-Latino descent has also been explored. Ramos, Jaccard, and Guilamo-Ramos (2003) found that Afro-Latino adolescents in grades 7 through 12 residing in the United States exhibited higher levels of depressive symptoms than their European American, African American, and Latino counterparts. This finding suggests that descent from two ethnic minority groups increases the propensity to depression. Consistent with prior studies, this study also showed that, across ethnic groups, adolescent females had higher levels of depression than males, and older adolescents had higher levels of depressive symptomatology.

More recently, Sen (2004) reported that all minority groups who participated in the 1996 round of Health Behavior in School-Aged Children, a survey of 9,000 6th- to 10th graders constituting a representative sample, were more likely to suffer from depressed mood compared to non-Hispanic Whites, although Blacks were at lower risk for self-injury. Consistent with previous studies, adolescent females were more likely to present a depressed mood than adolescent males.

Depressive Disorders

Few studies have examined ethnic differences in mood disorders among ethnic minority children and youth. Most studies (e.g., Costello et al., 1996) have found few differences in depression between European Americans and African American youths. Roberts, Chen, and Solovitz (1995) investigated ethnocultural factors on the manifestation of *DSM-III-R* symptoms. In their sample of 334 Anglo, African, and Mexican Americans ages 12 to 17 years, 78 were diagnosed with Mood Disorder. There were few "meaningful" ethnic differences through a comparison of prevalence rates of symptoms and criteria for *DSM-III-R*, as well as rank order of criteria.

Among the few studies employing large samples, a study that assessed depression in nine ethnic groupings stands out. Roberts, Roberts, and Chen (1997) assessed depression in 5,423 students representing over 20 ethnicities in grades 6 to 8. For the entire sample, the mean prevalence rate for Major Depressive Episode (MDE) based on *DSM-*

IV criteria was 8.8% without adjusting for impairment and 4.3% with adjustment for impairment. These rates are higher than previously reported in the literature (Fleming & Offord, 1990). Analysis of the scores from the nine largest groups revealed that African Americans and Mexican Americans had significantly higher rates of MDE without impairment than European Americans and all other groups, but only the Mexican American group had significantly higher rates of MDE with impairment, independent of age, gender, and SES. Mexican Americans had the highest prevalence rate adjusted for impairment (6.6%); Chinese Americans had the lowest (1.9%). Consistent with findings from other studies, females overall had higher rates than males. A distinctive contribution of this study is that it examined the interaction between ethnicity and SES in a segment of the sample: European Americans, African Americans, and Mexican Americans. Neither chi-square analysis nor logistic regression analysis yielded a significant interaction effect on prevalence rates with or without adjustment for impairment. Across ethnic groups, prevalences were higher for those reporting lower SES.

Sack, McSharry, Clarke, and Kinney (1994) administered the Diagnostic Instrument for Children and Adolescents and selected sections of the Schedule of Affective Disorders and Schizophrenia for School-age Children-Epidemiologic Version, with the assistance of a Cambodian translator to a nonstratified random sample of 209 13- to 25-year-old Khmer adolescents and young adults; as well, a parent or guardian was interviewed in two Western communities to determine their diagnostic status following their survival of the Pol Pot War in Cambodia in 1975 to 1979. Roughly one-fifth of the adolescents, over half of the mothers, and about one-third of the fathers qualified for a current diagnosis of Posttraumatic Stress Disorder. There was high comorbidity with depression, but other forms of psychopathology were much less evident.

In an ethnically diverse sample of Asian/Pacific Islanders and European Americans, Austin and Chorpita (2004) did not find ethnic differences in depression, indexed through either average scores or percentage with clinically elevated scores, in their study of an ethnically diverse sample from Hawaii. Costello et al. (1997) did not find a significant difference in the rate of depression between Native Americans in Appalachia and their European American counterparts. Beals et al. (1997) reported that the 6-month prevalence rate of depressive disorders found in their sample of Plains Indian youths was essentially equivalent to the lifetime prevalence rate reported by

Lewisohn et al. (1993) for European Americans. It is worth noting that although these recent studies employing *DSM-III-R* have not found ethnic differences in the prevalence of depression among Native American youth, earlier reports suggested that depression is a problem in this population (Beiser & Attneave, 1982; Dinges & Duong-Tran, 1993). More recently, Rieckmann et al. (2004) reported that although the mean CDI score was 10, slightly below the 11 cut-off score for determining depression, 14% of their sample of 332 Navajo adolescents exceeded the CDI cut-off score of 20 suggested for use with general or unselected samples (Kovacs, 1992). It appears that higher rates of depression for Native American youths compared to their counterparts from other population groups emerge from self-report measures but not when *DSM-III-R* criteria for depressive disorders are applied.

In summary, this review found that most studies, including those with large probability samples, revealed some ethnic differences in prevalence rates of symptomatology or disorders among children and adolescents for conduct, substance-related, anxiety, and mood disorders. The presence of an ethnic difference varies as a function of the type of symptomatology or disorder and the ethnic group assessed. This conclusion differs from that presented in the 2001 supplement to the surgeon general's report on mental health that "within the United States, overall rates of mental disorders for most minority groups are largely similar to those of whites" (U.S. Department of Health and Human Services, 2001, p. 42). It is more consistent with the conclusion reached in a more recent review of adult mental disorders that "there is evidence that the various ethnic minority groups may exhibit significant differences in the prevalence of mental disorder" (Sue & Chu, 2003, p. 447). Our literature searches yielded many studies of the four disorders discussed; only the major ones were included in this review. It does not seem to be the case that "the smaller racial and ethnic groups, most notably American Indians, Alaska Natives, Asian Americans and Pacific Islanders are not sufficiently studied" (U.S. Department of Health and Human Services, 2001, p. 42), but rather that epidemiological studies of children and adolescents in this population are rare and community studies, although much greater in number, tend to concentrate on a few disorders or overly focus on a specific disorder when studying one group (e.g., substance-related problems among American Indian adolescents). A wider range of disorders need to be examined, preferably through epidemiological studies using large representative samples with adequate controls for relevant demographic variables.

CULTURAL CORRELATES OF CHILD PSYCHOPATHOLOGY

Some significant associations between psychological variables and symptomatology or disorder have been interpreted as possible reflections of cultural influences (Beals et al., 1997; Bird et al., 2001; Pina & Silverman, 2004). However, few studies have directly investigated the specific linkages between psychological variables (e.g., parental monitoring) and cultural variables (e.g., family closeness as a cultural value) or the role of cultural variables as risk or protective factors. In this section, we present findings on psychological variables associated with ethnic differences in psychopathology and discuss their observed or potential linkages to cultural variables. The role of cultural variables as protective or risk factors is also discussed. Culturally based protective and risk factors are not treated as mutually exclusive. Depending on the presence of other factors or circumstances, a cultural variable may function as a risk or as a protective factor.

Cultural Values

Each society has its own set of values or prized beliefs, concepts, institutions, and so on. These beliefs, concepts, institutions, practices, and so on are not necessarily unique to that society; they may be found in other societies. What is ethnic group- or culture-specific is the emphasis given to a particular belief, concept, or institution, the degree to which it is held dear or valued within a group. Cultural values are considered essential to the well-being of a society and its members. Each society seeks to maintain its values and to instill them in succeeding generations. It has been suggested that certain cultural values are related to development and mental health, either positively or negatively. In this section, we describe three cultural values that have been hypothesized as related to the mental health of ethnic minority youth and examine the evidence.

Family

In most societies, the family is the basic context for human development, including development gone awry. Families characteristics may vary, however, and culture is one source of variation. Cultural differences in family size, composition, structure, and dynamics can influence development. The extent to which they do is sometimes related to the cultural value attached to the family, and this value differs between individualist and collectivist cultures. In the former, individuals and personal goals are given priority

over groups and group goals; in the latter, groups such as the ethnic group or the family receive priority, and individual personal goals are subordinated to ethnic group or family goals. The family is considered important in both individualist and collectivist societies, but it receives a stronger emphasis and a higher priority among collectivist cultures, such as those of African Americans, American Indians, Asian Americans, and Latinos. "Familismo" or "familism" are the terms, introduced by Latino researchers, applied to this emphasis on the family, which many consider a mediator variable through which culture influences normal or pathological development.

In regard to conduct problems, one study of academic misconduct in community samples showed that although early adolescent European Americans, Chinese Americans, Taipei Chinese, and Beijing Chinese displayed comparable overall levels and types of self-reported misconduct (academic misconduct, antisocial behaviors, status violations), the relative contributions of family and peers to misconduct differed significantly among the groups (Chen, Greenberger, Leiter, Dong, & Guo, 1998). Family variables were parent-adolescent conflict, parental warmth, and parental monitoring; peer variables were peer approval and peer sanctions for misconduct. Structural equation modeling using only the data from adolescents showed that family relationships and peer sanctions for misconduct accounted for a significant amount of variance in misconduct for all four groups, but the percentage of variance accounted for was much greater for the two American samples than for the two Chinese samples from Asia. The cross-national difference was due mainly to the greater contribution of peer factors to adolescent misconduct among European Americans and Chinese Americans. Structural equation modeling that included data from mothers did not significantly change the proportionate contributions of family and peer factors to adolescent misconduct. Chen et al. suggest that the relatively stronger influence of peers may be due to the fact that American adolescents spend more time with their peers than do their counterparts in Taipei or Beijing.

Family relations and parental monitoring were among the significant predictors of the higher levels (3 = lying, disobedience, 4 = damaging property, attacking someone) of antisocial behavior for three groups of children and adolescents, Island Puerto Ricans and Mainland African Americans and European Americans (non-Hispanic Whites), but not for Mainland Hispanics, possibly due to the small sample size of this group (Bird et al., 2001). Island Puerto Ricans had lower rates for all three levels of

antisocial behavior compared to the three Mainland groups (Hispanics, African Americans, and non-Latino, non-African Americans who were mostly European Americans). Bird et al. also examined the rate of increase (or decrease) in antisocial behavior involved for each of the correlates. Only poor relationships with other members of the family were associated with a substantial increase in antisocial behaviors. Because this variable was significantly lower for Island Puerto Ricans than the three Mainland ethnic groups, Bird et al. concluded that the only finding that stood out as an explanation for the lower rates of antisocial behavior among Island Puerto Rican participants could be accounted for by the association between lower levels of antisocial behavior and better family relations. Although they carefully noted that causality cannot be inferred from a finding obtained in a cross-cultural study, they still asserted that it is, potentially, of cross-cultural importance.

Additional research among Island Puerto Ricans is needed to confirm the role of better family relations as a protective factor against the development of antisocial behavior and to identify other factors that might augment or support its role. Bird et al. (2001) suggest that two such factors might be direct parental control through discipline (Patterson, 1982, cited in Bird et al., 2001) and social control (Hirsch, 1969, cited in Bird et al., 2001). In a collectivist society such as is found in Puerto Rico, strong family attachments are valued and promoted. There are also clear societal and family expectations of what are appropriate behaviors and the sanctions for violations. Direct parental control is exercised through discipline without the coercion that can impair parent-child relationships. At the same time, social control is facilitated by large extended families that, along with parents, monitor and supervise the behavior of children, adolescents, and young adults. In addition, the expectations and sanctions may also be endorsed by other societal institutions such as religious organizations and schools, creating a sense of societal congruence that increases social control. Bird et al. suggest that the levels of direct parental control and social control may have eroded for Mainland Puerto Ricans, who were more like the other Mainland ethnic groups. If erosion has indeed occurred, one contributing factor might be the peer group, as suggested by the Chen et al. (1998) study. Studies are needed to confirm this and also to test the hypothesis that strong family attachments, direct parental control through strict but noncoercive discipline, and social control by extended family members and other socialization agents may prevent the emergence of antisocial behaviors.

Thus far, there is scant evidence for the role of culturally based family variables as correlates of substance use/abuse. Although Costello et al. (1997) reported that some family variables were associated with psychiatric disorders in their sample of American Indians and European American youth living in Appalachia, these do not appear at face value to be culturally based family variables. For both groups, family mental illness appears strongly associated with childhood disorder. Poverty, family deviance, and, to a lesser extent, family adversity were associated with child psychiatric disorder in the European American sample, but not in the American Indian sample. Although Costello et al. did not investigate cultural factors as possible correlates of substance abuse among American Indian youth, other investigators have done so.

Beals et al. (1997) noted that the elevated rates of substance use disorders, specifically alcohol abuse/dependence noted in their sample of American Indian youth, appeared to reflect the elevated rates present among adults in their community and suggested that cultural factors could be among the many reasons for these rates. However, Beals did not specify any culturally based family variables. In the absence of evidence for such variables, the co-occurrence of elevated rates of substance use in both the youth and adult communities might be accounted for in terms of social learning, in some cases building on a biologically based predisposition or "vulnerability to alcoholism" (Ehlers, Garcia-Andrade, & Phillips, 2001; Wall, Garcia-Andrade, Wong, Lau, & Ehlers, 2000). Within their families and communities, youth may observe substance use with few sanctions against it. Acquisition may actually occur within the peer group and be maintained by it. An assessment of the contexts associated with drug use among American Indian adolescents of the Southwest revealed that the most frequent and difficult (i.e., perceived difficulty in resisting use) drug and alcohol situations occurred primarily with cousins or friends at home or after school (Okamoto, LeCroy, Dustman, Hohmann-Marriot, & Kulis, 2004). Last, although it has been hypothesized that how native groups drink has been conditioned by aspects of their respective social organization (families and communities) prior to the advent of Europeans in the New World, Spicer, Novins, Mitchell, and Beals (2003) failed to find evidence for this hypothesis. Their study of four contemporary American Indian groups showed that cultural group differences accounted for a small percentage of the variance in both the quantity and frequency of alcohol use and its negative consequences, but the patterns of alcohol use were not consistent with the hypothesis that they would be related to

aspects of American Indian social organizations prior to European colonialism.

The family as a mediator of culture's influence on internalizing disorders has also been studied by researchers. Ginsburg and Silverman (1996) found support for the hypothesis that separation anxiety would be greater in those ethnic groups that highly value the maintenance of close family relationships and interdependence. The higher rates of SAD among Hispanic children are surprising given a prior suggestion in the attachment literature that children from cultures that have large extended families with multiple caregivers might be less prone to separation anxiety. However, the Latino children studied by Ginsburg and Silverman were more likely to come from families with lower incomes than their European American counterparts. Perhaps they were children from low-income immigrant families who lacked the extended kinship support available in their country of origin while attempting to deal with a new environment. Furthermore, these children might have experienced periods of separation from one or both parents during the process of migration. Because measures of attachment or family closeness were not administered, one cannot conclude that the significant difference in the prevalence of SAD between the two samples can be explained by cultural differences in attachment or family closeness.

Austin and Chorpita (2004) found only partial support for their hypothesis that separation anxiety would be higher in those ethnic groups that place a high value on maintaining close family relationships and interdependence. Although this hypothesis was confirmed for Native Hawaiians based on their mean RCADS score, and for both Native Hawaiians and Filipino Americans based on percentages with clinically elevated RCADS scores, it was not true for the Chinese and Japanese Americans. Because Austin and Chorpita did not actually administer a measure of family closeness and interdependence, it is difficult to explain their findings. Perhaps the assumptions underlying their hypothesis need to be reviewed. Separation anxiety is characterized by developmentally inappropriate anxiety around separation from the home or from one or more attachment figures. It is associated with persistent and excessive worry about losing or being separated from an attachment figure, or about possible harm befalling an attachment figure (American Psychiatric Association, 2000). Implied in these characteristics is a sense of insecurity in the child. Does family closeness necessarily breed insecurity? Or does it actually do the opposite, instill a sense of security that emboldens the child to explore the environment, secure in the knowledge that there is a home base or

safe haven to which he or she can return? Perhaps there are varying types of family closeness with different developmental outcomes. Furthermore, strategies for maintaining family closeness and interdependence may have differential developmental outcomes: Some may instill a sense of security, whereas others do not; some may achieve a balance between interdependence and independence that enables the child to feel confident that he or she can function without the constant presence of the attachment figure, whereas other strategies may foster a greater dependence that makes a child feel insecure in the absence of a major attachment figure. The developmental cross-cultural literature on families and attachment (e.g., Harwood, Miller, & Irizarry, 1995) might be helpful in reconceptualizing the relationships among family closeness, interdependence, and separation anxiety.

Depressed mood in late adolescence has been found to be associated with problems in relations with parents, as well as with peers. Based on a 2-year longitudinal study, Gore and Aseltine (2003) reported that 2 years after high school, the difference between European Americans and African Americans or Latinos in depressed mood was accounted for by problems in parental relations and peer relations. In contrast, the difference between Asian Americans and African Americans or Latinos was accounted for by lower college enrollment.

Before leaving this discussion of the family as a possible mediator of the relationship between culture and psychopathology, it should be noted that even when studies find cross-cultural consistency in the relationships between family variables and depressive symptoms among children (Kim, 2000) and adolescents (Dmitrieva, Chen, Greenberger, & Gil-Rivas, 2004), they also reveal cross-cultural differences in the magnitude of associations among variables. This finding underscores the importance of looking beyond surface similarities to distinguish what is culturally specific from what is universal.

Simpatia

Varela et al. (2004) tested the hypothesis that anxiety reporting would be associated positively with the cultural value of *simpatia*, a Spanish construct denoting empathy with others and remaining agreeable even if it entails self-sacrifices (Gabrielidis, Stephan, Ybarra, Pearson, & Villareal, 1997, as cited in Varela et al.; Kagan & Madden, 1970, as cited in Varela et al., 2004). *Simpatia* is emphasized more in collectivist than in individualist cultures. To ascertain that the participants did indeed have a collectivist orientation, Varela et al. assessed this. As expected, Mexican and Mexican American children endorsed collec-

tivism as a cultural value more than did European Americans. They also exhibited a greater use of strategies reflecting *simpatia*. In addition, support was found for a direct link between the reporting of physiological anxiety and *simpatia*.

Interpersonal Relations and Social Conformity

Cultures vary in the value they place on interpersonal relations and adherence to group norms for interpersonal relations. Some support for the hypothesis that there is a relationship between these values and anxiety was obtained by Austin and Chorpita (2004). Based on prior research (Okazaki, 1997) they predicted that Chinese, Japanese, and Filipino American youths whose ethnic groups assign greater negative attributions and shame to violations of norms for interpersonal interaction would have higher mean scores and higher rates of clinical elevation on social anxiety than those with other ethnic affiliations. This prediction turned out to be correct for Chinese Americans and Filipino Americans, but not for Japanese Americans, but only in regard to RCADS mean scores on social anxiety. Although the percentage of Chinese Americans with clinically elevated scores was the highest among all ethnic groups in the diverse sample, the difference was not statistically significant.

Ethnic Socialization

Ethnic socialization is the process whereby parents and other elders in an ethnic group transmit their culture to the younger generation and also prepare them for interacting with other ethnic groups. Thus, it includes enculturation or the task of cultural transmission and what is sometimes referred to as racial socialization. Ethnic socialization for dealing with racial issues has been suggested as a possible correlate of anxiety among African American children. Neal-Barnett (2004) has hypothesized that African American parents who prepare their children to deal with racial stressors may be providing them also with a protection against the development of anxiety and depressive symptoms. Among African Americans, ethnic socialization for racial issues may involve minimizing the gender socialization that is found in other ethnic groups. S. F. Lambert, Cooley, et al. (2004) found that, unlike studies of European American children, their study did not reveal sex differences in anxiety sensitivity among African American children. They interpreted this finding as an indication of a possible lack of gender differentiation in ethnic socialization. According to S. F. Lambert, Cooley, et al.,

low-income African American families and schools in urban communities characterized by high levels of hostility and violence may minimize gender differences in socialization to provide girls as well as boys with knowledge and skills required for staying safe in these communities that present an "ecological risk" (Prelow, Danoff-Burg, Swenson, & Pulgiano, 2004).

Ethnic socialization has been invoked to account for the observed ethnic differences in anxiety-related somatic and physiological symptoms and distress associated with these symptoms. According to Pina and Silverman (2004), the difference between European American and Hispanic/Latino youth in anxiety-related somatic complaints is attributable to Latino socialization, or more specifically, observational learning and reinforcement. Parental reactions to their own somatic/physiological symptoms (e.g., refraining from daily activities such as going to work) serve as models for coping with such symptoms. Children experiencing distress may then also develop somatic or physiological complaints. Parental reactions to their children's somatic complaints such as allowing them to stay home from school or giving them extra attention, special foods, or get-well gifts reinforce or increase the probability of recurrence of the children's displays of and ideas about the meaning of somatic/physiological symptoms.

Pina and Silverman (2004) did not assess ethnic socialization for expression of anxiety symptomatology. However, observational data on parents' explanations for ambiguous events in family discussions from the Varela et al. (2004) study illustrate how such ethnic socialization might take place. This study yielded support for the hypothesis that Mexican and Mexican American parents would model avoidance of anxious interpretations to potentially threatening situations because these situations could evoke aversive feelings. In talking with their children about solving ambiguous problem situations, Mexican parents generated fewer anxious, nonsomatic interpretations than their European American counterparts. Another hypothesis was also confirmed: Mexican and Mexican American parents did encourage and model somatic, nonanxious interpretations to ambiguous problem situations, probably because expression of emotions in somatic form is more culturally acceptable. In parent-child discussions, Mexican and Mexican American parents generated more somatic, nonanxious (or nonpsychological) interpretations than did European American parents. Additional support for the hypothesized link between culturally based family processes and anxiety reporting in children of Mexican descent was provided by a positive correlation between a parent somatic

interpretation index and children's scores on the Worry scale of the RCMAS. Although ethnic socialization may begin during childhood among those of Mexican descent, a clear preference for somatic explanations of internal ambiguous symptoms or ambiguous social stimuli over anxiety-related interpretations may not be manifested until late adolescence or adulthood, after long-term exposure to cultural mediums (e.g., media, school, peers) that endorse this attribution style (Varela et al., 2004). Thus, parents of Mexican descent would be more likely than their children to show a somatic bias.

Acculturation

The developmental and other outcomes of ethnic socialization can be altered through acculturation, the process of learning about the culture of another ethnic group, when acquired knowledge, attitudes, and behaviors are incorporated into the individual's behavioral repertoire. Pina and Silverman (2004) suggested acculturation as a possible explanation for the differences in reporting of somatic/physiological symptoms of anxiety that they found between subgroups of Cuban American versus non-Cuban Latino Americans and within the non-Cuban group, between those whose parents preferred English as the assessment language and those who chose Spanish. According to these investigators, youth with Hispanic origins whose parents preferred English as the assessment language might have been more acculturated and adopted European American ways of conceptualizing and expressing distress. Hence, their children responded more like European Americans than members of their ethnic group whose parents preferred Spanish. Acculturation was not directly assessed in the Pina and Silverman study, so research is still needed to examine its role as a correlate or predictor of anxiety-related somatic and physiological complaints for Latino youth.

Lacking data on acculturation, Pina and Silverman (2004) suggested that in their study, language choice could have served as a proxy variable for acculturation (Angel & Guarnaccia, 1989). If English as the preferred language is a proxy for acculturation and the choice of Spanish is a proxy for less acculturation, then there should have been no difference between the Cuban Americans and non-Cuban American Latinos in the Spanish language choice group. However, this was not the case. Among those who chose Spanish, Cuban American youth reported somatic/physiological symptoms as significantly more distressing than did non-Cuban American Latino youth. As an alternative explanation, Pina and Silverman proposed that language

choice, independent of acculturation level, may still serve as a cultural signifier for reporting psychosocial or psychological distress, including anxiety (Reichman, 1997, as cited in Pina & Silverman, 2004). Research is still needed to examine the role of acculturation in the expression of anxiety and the role of language choice as a proxy for acculturation or as an independent cultural signifier for reporting psychosocial or psychological distress.

At least one study has investigated the relationship between acculturation, childhood depression, and coping. Huang, Leong, and Wagner (1994) assessed the effects of self-esteem and perceived competence on children's perceived stressors, dysphoria, and coping strategies in Chinese American children differing in levels of acculturation. For both acculturation groups, peer stressors were significantly related to feelings of dysphoria. Children's choice of coping strategy differed as a function of acculturation. Consistent with traditional Chinese teaching, low-acculturation children most effectively used suppression in dealing with daily life stressors, whereas high-acculturation children were more likely to use retaliation. Still, retaliation was the least commonly used coping strategy among highly acculturated children. In contrast, low-acculturated children used their most effective strategy—suppression—frequently.

Acculturative stress, that is, perceived stress from the experience of attempting to reconcile cultural differences, has been linked to depressive symptoms. In a study of Mexican American middle school students, Romero and Roberts (2003) found that for both immigrant and native-born Mexican American youths, higher perceived acculturative stress was associated with predepressive symptoms. Immigrant youths reported a higher total number of stressors than did native-born Mexican Americans. The sources of stress also differed between the two groups. Native-born Mexican Americans reported more stress from needing better Spanish-language skills and from the impact of their parents' culture or intergenerational gaps whereas immigrant youths perceived more stress from needing better English proficiency in school.

Ethnic Identification

A study of ethnic pride, biculturalism, and drug use norms of urban American Indian adolescents in seventh grade (age 11 to 15 years) has shown that students who have a more intense sense of ethnic pride adhere more strongly to certain antidrug norms (Kulis, Napoli, & Marsiglia, 2002). In another study, ethnic pride was associated with differential outcomes for different ethnic groups. Marsiglia, Kulis,

and Hech (2001) found that African-American, Mexican-American, and mixed-ethnicity students with a strong sense of ethnic pride reported less drug use and exposure, whereas European-American students who also took great pride in their ethnicity reported more.

Among adults, the strength of identification with an ethnic group is directly associated with fewer depressive symptoms (Mossakowski, 2003). In a sample of African American children ages 10 to 12 years, community ethnic identification was negatively related to depressive symptoms (Simons et al., 2002). There was also evidence that community ethnic identification mediated the relationship between victimization and depressive symptoms.

Ethnic identity is manifested through cultural orientation. In a study involving 9th- and 11th-grade Asian American students ages 14 to 19 years, cultural orientation and interpersonal relationships were significant predictors of depression (Wong, 2001). Subjects with a high orientation toward ethnic culture and a low orientation toward mainstream culture experienced greater depression than those with high orientation toward American culture and low orientation toward ethnic culture. In addition, the presence of more positive parent and peer relationships predicted lower depressive levels. None of the examined demographic variables was a significant predictor of depression, although subjects who immigrated after the age of 12 years were more depressed than U.S.-born adolescents.

Mental Health-Related Beliefs

One of the pathways whereby culture might indirectly influence the emergence and persistence of psychopathology is through an ethnic group's shared beliefs about mental health. The culture of an ethnic group includes beliefs about typical and atypical behaviors, explanations for deviance, and what constitutes significant impairment of functioning. Although a number of studies have assessed ethnic differences among college students and adults in their beliefs about various psychological problems or disorders (e.g., Luk & Bond, 1992), few have done so among children or adolescents and their parents. McKelvey, Baldasar, Sang, and Roberts (1999) found that a large proportion of Vietnamese parents in an Australian community sample attributed a child's mental illness to biological/chemical imbalance, trauma, and metaphysical or spiritual causes. Other studies involving children or adolescents who had been diagnosed and/or were receiving mental health services have yielded inconsistent results. Yeh, Hough, McCabe, Lau, and Garland (2004) asked the parents of 1,338 youths with identified mental health

problems about the causes of their children's problems. Beliefs about 11 etiologies fell into three major categories: biopsychosocial, sociological, and spiritual/nature disharmony causes. Parents of African American, Asian/Pacific Islander American, and Latino American children were generally less likely than parents of non-Latino Whites to endorse etiologies consistent with biopsychosocial beliefs about mental illness. These biopsychosocial beliefs included physical causes, personality, relational issues, familial issues, and trauma. Some racial/ethnic differences were evident for sociological causes such as friends, American culture, prejudice, and economic problems. No ethnic differences were found for beliefs in spiritual or nature disharmony etiologies. Analyses controlling for demographic characteristics, child's symptomatology and problem severity, and public service sector affiliation produced fewer significant racial/ethnic differences but a similar pattern of results. These analyses also showed that compared to European American parents, African American parents were less likely to attribute mental illness to relational issues or spiritual issues; Asian/Pacific Islanders were less likely to report physical causes, personality, familial issues, and trauma as causes; and Latinos were less likely to endorse physical causes, personality, relational issues, familial issues, and American culture. Unlike European American parents, African Americans and Asian/Pacific Islanders were more likely to endorse prejudice as a cause and also were more likely to attribute their child's problem to American culture. The authors concluded that racial/ethnic differences in parental beliefs about the causes of their child's problems exist in an at-risk sample.

Another study that employed a sample of children who had been identified as having a disorder was conducted by Bussing, Schoenberg, Rogers, Zima, and Angus (1998). These investigators explored the explanatory models of ADHD held by parents representing two ethnic groups. They reported that whereas European Americans were more likely than their African American counterparts to use medical labels as descriptors for their child with ADHD, the two groups did not differ significantly in their etiological or causal explanations for the disorder. Perhaps the lack of ethnic differences reported by Bussing et al. is a function of their having used two groups of parents whose children essentially had the same disorder. Yeh et al. (2004) found that after controlling for child symptomatology, African American parents did not differ from European American parents in their beliefs about biopsychosocial causes of mental illness, except that they were less likely to attribute mental illness to relational issues.

These findings denoting similar beliefs about a syndrome in parents from different ethnic groups whose children have been diagnosed suggests that cultural beliefs about a syndrome can be altered through exposure to the beliefs of other cultures.

Some support for this suggestion is provided by a British study of beliefs about depression held by two age groups (17 to 28 years and 35 to 42 years) of native-born British and Asian-born immigrants to Britain (Furnham & Malik, 1994). In the middle-aged group, Asian-born participants differed significantly from native-born British in their perceptions of the symptoms and causes of depression. In the younger group of late adolescents and young adults, however, Asian-born immigrants who grew up in Britain did not differ from their native-born British peers. It appears that cultural beliefs about a syndrome are learned during the formative years (Furnham & Malik, 1994). The broader cultural context of concept formation plays an important role; exposure to a different culture during the formative years results in the acquisition of that culture's beliefs about a syndrome even if one's parents hold different cultural beliefs. There is also evidence that cultural beliefs about a syndrome acquired during the formative years are retained in adulthood, even if one immigrates to a country with a different culture (Furnham & Malike, 1994). A new, broader cultural context may not bring about an alteration in cultural beliefs unless accommodation becomes necessary. Change can occur if one's child develops a syndrome that requires direct contact with mental health professionals who hold different cultural beliefs about that syndrome and impart those to the parent (Bussing et al., 1998; Yeh et al., 2004). The nature of how specific alterations occur remains unknown. Is it a case of substitution or integration? Does a change in beliefs about one syndrome result in a change in the pattern of organization among cultural beliefs related to mental health?

Cultural Responses to Deviance and Distress

Cultural beliefs about psychological problems or disorders are important because they set the parameters for threshold tolerance of and responses to atypical or deviant behaviors from the individual and the environment. A longitudinal study of stress-buffering effects for urban male African American adolescent problem behaviors and mental health revealed that although parental support predicted less anxiety and depression longitudinally, the manifestation of psychological symptoms did not predict increased parental support over time. In other words, high parental support may protect African American youth from anxiety and depres-

sion, but the appearance of symptoms does not necessarily activate increased levels of support in this ethnic group.

Help Seeking and Preferred Modes of Intervention

Ethnic differences in help seeking have been reported. Based on data from the 1996 round of Health Behavior in School Children, Sen (2004) reported that certain racial groups are at greater risk for not asking for help for depression. In a study of the mental health needs and service utilization of 401 southwestern urban and reservation youth, Stiffman, Striley, Brown, Limb, and Ostmann (2003) found that, regardless of diagnosis, youth meeting criteria for a mental disorder were least likely to use configurations with traditional healers or specialists, and there was little difference in their utilization rates of either. Instead, they were more likely to use service configurations including adults, nonspecialist professionals, and peers before turning to specialists. Sen (2004) found that Black and Asian adolescents were especially prone not to ask for help, with the problem being more acute in the case of males in both groups. The majority of males and females with depressed mood or self-injury risk were not likely to seek help from anyone.

Abe-Kim, Gong, and Takeuchi (2004) examined the influence of religious affiliation, religiosity, and spirituality on help seeking from religious clergy and mental health professionals among 2,285 respondents to the Filipino American Community Epidemiological Survey. After controlling for need (e.g., Symptom Checklist-90 Revised [SCL-90R]; Derogatis & Cleary, 1977; scores, negative life events, and somatic symptoms), demographic variables (e.g., age, gender, marital status, education, county of residence, generational status, and insurance coverage), and cultural variables (e.g., loss of face and language abilities), rates of help seeking from religious clergy (2.5%) were comparable to rates of help seeking from mental health professionals (2.9%). High religiosity was associated with more help seeking from religious clergy but not less help seeking from mental health professionals, whereas high spirituality was associated with less help seeking from mental health professionals.

Experiences with mental health professionals can affect service utilization. Diala et al. (2000) found that, prior to use of services, African Americans had more positive attitudes than European Americans toward seeking such services, though they were less likely to use them. After utilization, however, African American attitudes were found to be less positive than those of European Americans.

Ethnicity, Minority Status, and Perceived Discrimination

Although not a cultural variable, ethnic minority status and its correlates, such as perceived discrimination and low socioeconomic status, with its increased likelihood of exposure to community violence, are often associated with psychological problems and cannot be ignored.

Relationships between these variables and symptomatology or disorder have been found. The ability to perceive racial/ethnic discrimination changes with increasing age. Among Mainland Puerto Ricans, children had a low likelihood of perceiving discrimination, but by adolescence, nearly half of this sample reported perceiving racial/ethnic discrimination (Szalacha et al., 2003). Adolescents were aware of negative stereotypes about Puerto Ricans. Although both groups scored high on multiple indicators of mental health, perceiving discrimination and worrying about discrimination were negatively associated with some dimensions of self-esteem and positively associated with depression and stress. Perceived discrimination and anxiety about discrimination can serve as risk factors for the mental health of Puerto Ricans. Phinney, Madden, and Santos (1998) examined whether perceptions of discrimination may be influenced by one's interpretation of the intentions of others. They studied a sample of Armenian, Mexican American, and Vietnamese adolescents (ages 14 to 19 years) who completed measures of perceived discrimination, self-esteem, mastery, depression/anxiety, intergroup competence, and ethnic identity, as well as demographic variables. A path analysis of the data showed that higher depression/anxiety scores and lower intergroup competence predicted more perceived discrimination. Depression/anxiety and intergroup competence were in turn predicted by self-esteem and mastery, respectively. Birthplace and socioeconomic status had an important effect on perceived discrimination via intergroup competence. Last, Simons et al. (2002) reported that for their sample of African American children (ages 10 to 12 years), at the community level, prevalence of both discrimination and criminal victimization were positively related to depressive symptoms.

CONCEPTUAL AND METHODOLOGICAL ISSUES

Doubts about the conceptual equivalence of certain constructs used in studying internalizing disorders have been

raised by several investigators. S. F. Lambert et al. (2004) and Neal-Barnett (2004) have questioned the relevance of the construct anxiety sensitivity for African American children living in high-crime areas. According to these authors, the construct may not have the same meaning and usefulness for this population as it does for other ethnic groups because high anxiety sensitivity may serve as a protective factor and therefore is actually an adaptive strategy in that environment. Given that physical concerns emerged as a robust first factor in the CASI structure for this population, it would seem that the construct of anxiety sensitivity remains meaningful and relevant for African American children and, as shown by S. F. Lambert, McCreary, et al. (2004), for adolescents. However, norms for anxiety sensitivity in this population may be different from those of other ethnic groups or for low-income African-American children living in high-crime areas. This suggests the need to include an assessment of context such as environmental stressors when employing measures such as the FSSC-R and CASI with all children living in poor neighborhoods riddled with crime and other environmental hazards.

Given the overlap of depression with anxiety, somatoform, and dissociative disorders, Kirmayer and Groleau (2001) have raised questions about the universality of the prototype representation for depression in North American psychiatry. They note that culture-specific symptoms may lead to underrecognition or misidentification of syndromes of mania and depression in many ethnocultural groups. Cultural idioms of distress may employ symptoms related to affective disorders to express sentiments and perceptions that do not in themselves indicate psychopathology. A similar concern can be expressed regarding anxiety. Some inconsistent findings on somatic/physiological symptoms of anxiety discussed in this review indicate the need for rethinking the representation of anxiety as well. If increased reporting of anxiety symptoms is the result of cultural influence, as it appears to be at some level, then normative patterns of anxiety reporting in certain populations need to be established and the cultural meaning of such reporting needs to be investigated further.

Much of the extant *cross-cultural* research compares national groups or ethnic groups and implicitly makes the term *culture* equivalent to a label for a sample of subjects (e.g., American versus Chinese). Each person in a given sample is indexed as belonging to a particular national or ethnic group and sharing that group's culture; thus, culture is treated as an index variable (Valsiner, 1997). The problem is that an index variable is a poor substitute for an independent variable that can be manipulated in order to

determine its causal relationship to the dependent variable. A persistent methodological problem in studies of cultural diversity in psychopathology is the omission of measures of the assumed cultural basis of the hypothesized ethnic difference. This makes it difficult to reach any definite conclusion about the role of culture. For example, if a collectivist culture is assumed to value family closeness, which, in turn, is hypothesized to serve as protective factor for depression, it would be desirable to include a measure of collectivism in addition to a measure of family closeness. Family closeness may exist for reasons other than that it is culturally valued. The inclusion of data on collectivism strengthens the inference of a cultural basis should the hypothesized association between family closeness and depression be confirmed.

Sampling is another methodological weakness in these studies. Aside from the problem of small sample size in a number of studies, there was ambiguity as to whether the sample was a random sample or the degree to which it was representative of the population being studied. Social class and other relevant characteristics such as generational status were sometimes not reported. Although more studies were careful to use distinct ethnic subgroups (e.g., Cuban Americans) and took this into account in the data analysis, others did not and gave no justification for their use of a heterogeneous ethnic group (e.g., Latinos).

In studies of prevalence rates for disorders whose behavioral indices sometimes overlap with those of other disorders (e.g., somatic symptoms present in both anxiety and depression), comorbidity was not analyzed. Last, many of the measures used are not normed for the population studied. In general, the approach taken in these studies has been an *etic* rather than an *emic* approach. Such an approach is not very effective at detecting cultural diversity.

CONCLUSIONS AND FUTURE DIRECTIONS

Cross-cultural studies indicate that certain disorders are identifiable in different countries in various regions of the world, using the same nosology and measures. They also show that gender differences in prevalence rates appear, regardless of that country's view of gender roles and socialization. With rare exceptions, such as the work of Weisz and his collaborators (1997), the cross-cultural studies reviewed in this chapter focused on prevalence rates and measurement validation rather than the cultural correlates of a disorder. Research is needed to investigate culture's role in the development of specific disorders, as well as in

their persistence or desistance. This could be incorporated, for example, in the cross-cultural programmatic research on problem behaviors in Dutch children and adolescents by Verhulst and his colleagues (Verhulst & Achenbach, 1995; Verhulst et al., 1997).

Whereas cross-cultural studies did not reveal much evidence of cultural diversity in prevalence rates, comparative ethnic studies did. Ethnic differences in rates of symptoms or *DSM* disorders emerged from epidemiological studies and community and clinical samples. What is notable about these findings is that no one ethnic group showed higher rates across disorders. Rather, one ethnic group may have consistently higher rates than other groups for a particular disorder (e.g., depression among Latinos, substance use/abuse in American Indians) but had rates comparable to those of other groups for other disorders. Furthermore, within-subgroup differences in prevalence rates emerged, indicating the importance of examining ethnic group differences by using ethnic subgroups rather than panethnic groups such as Latinos or Asian Americans, unless prior research has revealed similar findings across subgroups of a panethnic group. Subgroup differences may eventually disappear with succeeding generations also, but until such time as there is solid evidence of similarities across subgroups, findings from a comparison of panethnic groups should be treated with caution. Cross-cultural and cross-ethnic studies that examined the factor structure of specific constructs measured (e.g., fear or anxiety) consistently showed cultural group differences.

Given the paucity of epidemiological studies, the methodological limitations, and, in some cases, inconsistent findings from community and clinical studies, any conclusions about ethnic differences in prevalence rates would be premature. Still, there is sufficient evidence to warrant additional research, preferably involving large representative samples. Prior to undertaking epidemiological studies, more work is needed to ascertain the ways psychopathology is defined in various cultures (Hoagwood & Jensen, 1997), including cultural variations in symptom expression and phenomenology of psychiatric syndromes (Manson, Bechtold, Novins, & Beals, 1997). Despite its acknowledgment of culture's role in psychopathology, the nosological system (i.e., *DSM-IV-TR*) applied currently in cross-cultural research still conceptualizes mental disorder mainly as residing in the individual sans context. Such a nosological system itself emerged from an epistemology that is culturally constituted. The likelihood of finding differences in prevalence rates among other cultural groups may be restricted by the diagnostic criteria and measurement tools employed. To fully understand the relationship

between culture and psychopathology, behaviors that are assumed to be psychopathological (usually culturally defined in Western societies as a *DSM* disorder) have to be explored from other culturally constituted epistemologies. In addition, other culturally constituted expressions of psychopathology have to be explored.

What is initially required is an emic approach. Ethnographic or observational studies to identify and classify cultural variations in the expression of distress or psychopathology can provide data for hypothesis generation, to be followed by more formal, hypothesis-testing research. Other exploratory studies using qualitative, ethnographic, and narrative methods can be used to obtain data for construct definition and identification of culturally appropriate indices as well as correlates that, in turn, can serve as a basis for measurement construction and generation of hypotheses. Quantitative studies using larger, representative samples to establish the psychometric properties of measures and norms would follow. In case the results of exploratory studies suggest that an etic approach would be appropriate in that existing measures might be suitable, the factor structure of relevant constructs (e.g., anxiety) or patterns of organization for symptoms or behavioral indices of a disorder still need to be examined. In addition, it will have to be determined whether the measure fully captures the range of relevant problems or behavior indices of a specific condition in the culture under consideration; if it does not, items will have to be added and the psychometric properties of the revised instrument must be established.

The importance of using reliable, culturally valid measures normed for the specific population cannot be overemphasized. More careful consideration should be given to the following questions: To what degree is what we find the result of measures that are predicated on premises of our dominant, culturally constituted epistemology? If we have developed a measure with samples dominated by majority culture participants and then apply these measures cross-culturally, and find little difference in prevalence and little variability in the expression of, for example, anxiety, what does this finding mean? By defining, via the measurement instruments, what anxiety is in the majority European American culture, there is likely to be a restriction of what we allow ourselves to find, and this will increase the likelihood that the disorder will look the same everywhere. Also, to what degree are our methods of analysis, our statistics, affecting what we find? For example, is our reliance on mean differences very informative? Might mean differences be obfuscating other important information that bears on the issue of the role of culture and, more generally, context in the development of psychopathology? Al-

though approaches that disaggregate the data and look for different patterns of variability are important in examining cultural differences, we need to also explore quantitative methods that are not part of our current statistical repertoire, such as fuzzy logic, which has been used in some cognitive applications. Developmental psychopathology cross-cultural/ethnocultural research can benefit from interdisciplinary collaborations.

Our review of studies on cultural correlates of psychopathology indicated that the same disorder may be associated with different correlates in different ethnic groups or cultures. Furthermore, for a given correlate, the magnitude of associations or the pattern of relationships may differ among different ethnic groups. For the same ethnic group, the magnitude of association between specific symptomatology or disorder and a correlate (e.g., ethnic identity) may vary, depending on how the correlate is operationalized or the age at which the relationship is being assessed.

A developmental-contextual perspective seems lacking in most of the studies reviewed. Culture's role may undergo changes over time, just as in historical time (Bronfenbrenner, 1995) a cultural attribute may change its adaptive function for an individual. Given the lack of sufficient empirical data, it is difficult to predict the direction of the change. It could increase with the individual's increasing age if there is congruence between the individual's ethnicity and that of the surrounding community, or weaken if the dominant culture is different. Changes in the relationship between culture and psychopathology may also depend on the specific cultural and developmental variables involved. Only a few studies have examined age-related changes in culture's role, and longitudinal studies are practically nonexistent. More cross-sectional studies, followed by longitudinal studies, are needed to more precisely elucidate the influence of culture on normal and atypical development and its interaction with other correlates in the course of development.

Culture's role has not been sufficiently explored in the development of any symptomatology or disorder reviewed in this chapter, so there is clearly a need for more research on this issue. However, more thoughtful consideration of the relevant cultural variables and processes ought to precede our choice of cultural variables to study and the disorders that they are hypothesized to influence. It is conceivable that culture may play a less prominent role in the development of those disorders that tend to be reproductive (e.g., Autism) rather than caretaking (e.g., Conduct Disorder) casualties (Sameroff & Chandler, 1975), while continuing to have a strong impact on societal responses to both disorders. Furthermore, the assumptions underlying

our hypotheses need to be based on adequate theoretical or empirical knowledge about both the disorder (e.g., separation anxiety) and the hypothesized cultural correlate (e.g., family closeness). Certain cultural constructs (e.g., family, ethnic identity) require unpacking or further differentiation into their various aspects. The salience of context and time of assessment may have to be taken into consideration. For example, ethnicity may not be found to be salient if assessment is conducted in routine activities at various times of the day; ethnic differences in problem behaviors may not be observed if data are collected at home or in the neighborhood but will appear in school. Perhaps the lack of ethnic differences in prevalence rates for certain symptomatology or disorders may be due partly to the fact that so many ethnic minority children and youth with these problems do not participate in research because they are disproportionately in foster homes, residential treatment centers, juvenile detention, or jail, or are just simply out on the streets.

As stated in the introduction to this chapter, culture is relevant to an understanding of psychopathology because of its role in development and because it shapes environmental response to distress and atypical behavior. Though culture may not play a prominent role in the development of certain disorders, it may still do so in shaping the environment's response to the emergence of those disorders. There are few studies on the latter role pertaining to the problems of children and adolescents. More work is needed, including studies to determine beliefs about the etiology, prognosis, and treatment of specific clinical syndromes, help-seeking attitudes and preferences, and expectations of treatment held by both the parent and the developing child or adolescent. There is much to be learned in the relationship of context, including culture, to the development of psychopathology, and we are only beginning to get a better appreciation of the importance of this relationship.

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