Race/Ethnicity and Inter-Informant Agreement in Assessing Adolescent Psychopathology

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Although the use of multiple informants in assessing youth psychopathology is highly valued, reports from adolescents, parents, and teachers consistently yield little cross-informant agreement (Achenbach, McConaughy, & Howell, 1987). This modest rate of inter-informant agreement may be expected, given the situational specificity associated with key informant reports. Although youth self-reports may reflect behaviors that occur across a variety of settings and situations (home, school, with peers), as well as internal experiences that cannot be observed, reports by adult informants are typically based on observations in more circumscribed conditions (either home or school). Given these different samplings of behaviors, instances of disagreement are not surprising. Research suggests that levels of concordance between informants varies by clinical variables, such as the type of symptoms assessed (Achenbach et al., 1987), the severity of family dysfunction (Kolko & Kazdin, 1993), and the presence of parental psychopathology (Frick, Silverthorn, & Evans, 1994). Identifying conditions under which agreement is particularly poor can help highlight circumstances in which a multimethod, multi-informant approach to clinical assessment is essential. Moreover, studying the predictors of inter-informant (dis)agreement can illuminate factors that influence the identification of youth psychopathology.

Racial/ethnic variation in inter-informant agreement in behavior problem ratings is a central issue in cross-cultural assessment research that seeks to understand whether scores on a given rating scale mean the same thing across different cultural groups. Cross-cultural equivalence in psychological assessment is analogous to intrarater reliability (Reid, 1995). For both intrarater reliability and cross-cultural equivalence to be demonstrated, four conditions must be met (Marsella & Kameoka, 1989). First, linguistic equivalence and conceptual equivalence require that raters share a common understanding of the attribute being rated as well as an understanding of behaviors that are representative of that attribute. Second, metric equivalence requires that raters share a common metric in order to accurately scale behaviors relevant to the attribute being rated. Finally, normative equivalence demands that raters are capable of identifying the same attribute in different cultural groups. Cross-cultural equivalence in psychological assessment is...
able of determining the occurrence and nonoccurrence of behaviors relevant to the attribute being rated. Accordingly, evidence of racial/ethnic differences in inter-informant agreement on ratings of youth behavior problems is suggestive of problems with cross-cultural linguistic, conceptual, metric, or normative equivalence.

Indeed, by examining the influence of race/ethnicity on inter-informant agreement and discrepancies in ratings of youth psychopathology, we can generate hypotheses about cultural differences in defining and reporting symptoms and racial/ethnic biases in assessment. Racial/ethnic differences in informant agreement may reflect a lack of cross-cultural conceptual equivalence that is driven by differential attention to, interpretation of, and tolerance for adolescent behaviors. As Weisz et al. (1997) pointed out, the study of youth psychopathology “is inevitably the study of two phenomena: the behavior of the child, and the lens through which adults view child behavior” (p. 569). Although culture can influence the actual expression of child psychopathology, the adult distress threshold hypothesis contends that culture also influences adults’ attitudes toward child behavior and the determination of whether a behavior constitutes a distressing problem. Findings of informant disagreement associated with race/ethnicity may indicate cultural variation in distress thresholds for judging youth behaviors as problematic.

It is also important to remember that the study of race/ethnicity encompasses not only the study of cultural variation but also processes related to minority status and associated sociocontextual factors. Systematic variation in informant (dis)agreement by youth race/ethnicity may also be explained by the influences of racial/ethnic stereotypes and biases. The perceptions of extramilial adult observers, such as teachers, may be particularly subject to the influence of race-related beliefs about base rates of youth deviant and prosocial behaviors. Research indicates that teacher expectations for student behavior and achievement have historically been related to student race (Du-sek & Joseph, 1983). Studies have shown that teachers judge African American children as having more disruptive or hyperactive symptoms, poorer future educational prognoses (Pigott & Cowen, 2000), and lower social competence (Letherman, Williamson, Moody, & Wozniak, 1986) than Caucasian children. Teacher response to misbehavior tends to be more severe for transgressions of African American students (Marwit, 1982), and teachers refer African American youth for treatment of behavior problems more frequently than do African American parents (Gottlieb, Gottlieb, & Trangone, 1991). Race appears to be an influential factor in decisions to place children in special education for emotional problems (Prieto & Zucker, 1981), where African American students are overrepresented (McCabe et al., 1999; Oswald, Coutinho, Best, & Singh, 1999). In contrast, teachers have been found to view Asian American youth as model students who are respectful and diligent but passive, lacking assertiveness and social competence (Bannai & Cohen, 1985; Schneider & Lee, 1990). Consistent with this stereotype, Chang and Sue (2003) found that teachers rate overcontrolled behaviors (e.g., shyness, worry) as more typical for Asians than for Caucasians and African Americans. This literature suggests that patterns of discrepant teacher ratings may be influenced by race-related beliefs and behavioral expectations.

Three studies of adolescent boys have examined whether inter-informant discrepancies in ratings of behavior problems emerge differently depending on the race/ethnicity of the youth being assessed. Using data from the Pittsburgh Youth Study (PYS), Fabrega, Ulrich, and Loeb er (1996) studied cross-informant difference scores in a sample of 290 African American and 216 Caucasian boys. Adolescent, parent, and teacher ratings on the various forms of the Achenbach checklists (Child Behavior Checklist [CBCL; Achenbach, 1991b], Teacher Report Form [TRF; Achenbach, 1991c], Youth Self-Report [YSR; Achenbach, 1991d]) were obtained to examine the influence of race/ethnicity on inter-informant differences in ratings of psychopathology. Results revealed no main effect of race/ethnicity on adolescent—parent difference scores. However, on atten-

tion problems, aggression, and delinquency, teachers rated African American students as having more problems than Caucasians compared to youth and parent reports.

Also using data from the PYS, Youngstrom, Loeber, and Stouthamer-Loeber (2000) extended these findings while controlling for multiple correlates of inter-informant agreement. These authors operationalized agreement using multiple definitions and found that the effect of race on agreement persisted even when socioeconomic status (SES), and caregiver depression, stress, substance abuse, and antisocial behavior were taken into account. Consistent with the previous report, race was associated with increased disagreement between teachers and parents and teachers and youth for externalizing, but not internalizing, problems. Teachers reported more externalizing problems in African American students than did parents and adolescents.

Zimmerman, Khoury, Vega, Gil, and Warheit (1995) examined teacher and parent perceptions of behavior problems in a sample of 236 African American, Hispanic, and Caucasian middle school boys in Dade County, Florida. Consistent with findings from the PYS, African American students received higher problem scores from their teachers than from their parents and were more likely than Hispanic and Caucasian students to be classified as clinical cases by their teachers than by their parents.

The literature reviewed provides preliminary evidence that inter-informant discrepancies and agreement vary systematically by race/ethnicity. Notably, adolescent–teacher and parent–teacher discrepancies may be attributable in part to cultural differences or racial/ethnic biases. Teacher disagreements with adolescents and/or parents are more pronounced for African Americans than for Caucasians (Fabrega et al., 1996; Youngstrom et al., 2000) and Hispanics (Zimmerman et al., 1995). Although the previous studies found no racial/ethnic differences in adolescent–parent discrepancies, it is possible that including racial/ethnic groups with a wider range of intergenerational differences in cultural
orientation or acculturation (i.e., groups that include high proportions of immigrant families) will yield different results. Youth in immigrant families tend to adopt the values and behaviors of the host culture more readily than do their parents (Szapocznik & Truss, 1978); parent–youth disagreements about youth problem behaviors may be more pronounced in families with intergenerational cultural gaps.

The current study will extend the literature in three ways. First, the inclusion of two minority groups (Hispanic and Asian Pacific/Islander) primarily composed of immigrants in addition to Caucasians and African Americans may provide a more thorough understanding of cultural influences on intergenerational (dis)agreement on youth behavior problems. Second, we examined inter-informant agreement regarding youth behavior problems in a high-risk sample of youth presenting in public sectors of care. The study of informant discrepancies and agreement in this population may be relevant to mental health assessment, referral, and service receipt in community settings than studies of general community samples. Third, this study was the first to examine ethnicity and inter-informant discrepancies and agreement in a sample that included boys and girls. The two main objectives of the study were (a) to compare levels of behavior problems according to self-reports, parent reports, and teacher reports among Caucasian, African American, Hispanic, and Asian/Pacific Islander adolescents sampled from public services and (b) to examine the effects of race/ethnicity on adolescent–parent, adolescent–teacher, and parent–teacher discrepancies and agreement in ratings of adolescent problems. In addition, we were able to explore potential interactions between race/ethnicity and gender on inter-informant discrepancies and agreement.

Based on the previous literature reviewed, we expected race/ethnicity to be associated with distinct patterns of informant discrepancies in reports of youth behavior problems. Specifically, we developed the following hypotheses: (a) compared to other racial/ethnic groups, African American youth would be rated as having more externalizing problems by teachers than by youth or parents and (b) compared to other groups, Asian/Pacific Islander youth would be rated as having fewer externalizing and internalizing problems by teachers than by youth or parents. In addition, we predicted that analyses of inter-informant agreement would yield (a) lower rates of youth–parent agreement about behavior problems in families at heightened risk of intergenerational acculturation gaps, namely Asian/Pacific Islander and Hispanic families, and (b) lower rates of parent–teacher agreement for African American and Asian/Pacific Islander adolescents than for Caucasian adolescents.

Method
Participants
The Patterns of Youth Mental Health Care in Public Service Systems is an epidemiologic study of youth served in five public systems of care in San Diego County: mental health (MH), juvenile justice (JJ), child welfare (CW), alcohol and drug services (AD), and special education services for youth with serious emotional disturbance (SED). The sampling frame was composed of a complete enumeration of the 12,662 youth 6 to 17 years old who were served in at least one of these five sectors in the last half of Fiscal Year (FY) 1996–1997. From this population, a representative stratified random sample of 1,715 youth was surveyed. (For more detailed information on sampling and recruitment, see Garland et al., 2001.) Stratification variables were race/ethnicity, level of restrictiveness of care, and sector affiliation. A poststratification weighting procedure (Henry, 1990) was used to ensure that the data would be representative of the population of youth in service systems in San Diego.

Youth ages 11 to 17 years (M = 14.9, SD = 2.2) who identified themselves as Caucasian, African American, Hispanic, or Asian/Pacific Islander, and for whom self-, parent, and teacher reports of psychopathology were available, were selected for inclusion in this study. The age and race/ethnicity criteria yielded a sample of 1,131 eligible adolescents (65.9% of survey sample). Exclusion of adolescents with one or more missing informant report on the behavior problem scales yielded a final sample of 600 adolescents (53% of eligible adolescents), including 254 Caucasians (55.9% of eligible Caucasians), 136 African Americans (54.4% of eligible African Americans), 163 Hispanics (49.2% of eligible Hispanics), and 47 Asian/Pacific Islanders (49% of eligible Asian/Pacific Islanders), with 67% of the sample being male. Race/ethnicity, age, gender, and involvement in the MH, AD, SED, and CW sectors were unrelated to exclusion from the sample due to missing measures. However, involvement in the JJ sector was related to greater likelihood of exclusion due to missing measures (β = -.46, p = .005). Immigrant families composed the majority of the Hispanic and Asian/Pacific Islander groups (59% and 61% foreign-born parents, respectively). In terms of sector affiliation (in FY 1996–1997), 68 youth were active in AD, 334 were active in MH, 181 were active in SED, 165 were active in JJ, and 135 were active in CW (37.6% of participants had an active case in more than one sector). At the time of the interview, 17.7% of the sample was residing in out-of-home placements (5.1% foster care, 2.3% group homes, 4.3% psychiatric hospital or residential treatment center, 6.0% incarcerated). Parent ratings were provided by a biological parent in 76.2% of cases, by a step/adoptive/foster parent in 22% of cases, and by a professional caretaker/service provider in the remaining 1.8% of cases.

Sector affiliation was associated with race/ethnicity such that African American, Asian/Pacific Islander, and Hispanic adolescents were more likely than Caucasian adolescents to be active in JJ, χ²(3, N = 600) = 20.05, p < .001, and African American adolescents were more likely to be active in CW than Caucasian, Hispanic, and Asian/Pacific Islander youth, χ²(3, N = 600) = 12.64, p = .005. Because youth involved with services related to alcohol, drugs, and/or mental health (ADM; MH, AD, and SED sectors) have higher rates of behavior problems across informant reports than do youth in other systems of care.
care (CW and JJ sectors), we included a control variable denoting affiliation in one of the ADM sectors in our analyses of racial/ethnic effects on assessments of adolescent psychopathology.

Family income was measured with an incremental scale that allowed participants to select a value (range = 1–32) that corresponded with distinct annual levels of income from $1,000 or less to $200,000 or more. The median income range for this sample was $20,000 to $24,999. Family income was associated with race/ethnicity ($F = 9.84, p < .001) such that Caucasian families had a higher mean income range ($M = $19,000–$19,999, $SD = 6.89$) than African American ($M = $16,000–$16,999, $SD = 6.82$), Hispanic ($M = $14,000–$14,999, $SD = 6.48$), and Asian/Pacific Islander families ($M = $16,000–$16,999, $SD = 7.65$).

### Measures

Adolescent, parent, and teacher ratings of psychopathology on the Achenbach behavior rating scales (CBCL, YSR, and TRF) were obtained. In the current sample, the broadband internalizing and externalizing scales from the YSR, CBCL, and TRF demonstrated good internal consistency across all racial/ethnic groups. Cronbach alphas ranged from .86 to .94 for Caucasians, from .87 to .95 for African Americans, from .88 to .96 for Hispanics, and from .89 to .95 for Asian/Pacific Islanders. In terms of validity, the internalizing and externalizing scales on the YSR, CBCL, and TRF were significantly correlated for all racial/ethnic groups with parent reports of youth impairment on the Columbia Impairment Scale (CIS; Bird et al., 1993), a 13-item continuous scale that reliably assesses the extent to which a child has experienced functional impairment over the previous 6 months.

Raw scores on the cross-informant internalizing and externalizing broadband scales were examined (Achenbach, 1991a), with higher scores indicating more behavior problems. The CBCL, YSR, and TRF contain 89 (of 112) identical items. We used a common-items approach to examine cross-informant agreement, to ensure that differing item content was not contributing to disagreements. As a result, the cross-informant broadband scores excluded up to seven informant-specific items that would otherwise contribute to the broadband scores individually derived from the CBCL, TRF, and YSR. Inter-informant agreement was examined across three dyads (adolescent–parent, adolescent–teacher, parent–teacher). Following Youngstrom et al.’s (2000) approach, we evaluated distinct indices of agreement, differences in levels of raw scores, and interrater $q$ correlations. Cross-informant difference scores (e.g., discrepancies between adolescents [YSR] and parents [CBCL]) were computed by subtracting the raw score provided by the second informant (e.g., parent [CBCL]) from the raw score of the first informant (e.g., adolescent [YSR]). Interrater $q$ correlations were simply the Pearson correlations between the sets of items provided by the two informants. These two indices of agreement complement one another because difference scores provided a metric indicating which informant reported more problems: Positive numbers indicated that the first informant in the dyad reported more problems than the second informant. Difference scores are sensitive to the levels but not to the shape or dispersion of profile scores (Youngstrom et al., 2000).

In contrast, the $q$ correlations are not sensitive to differences in the levels of problems reported by the different informants, but they convey information about the shape and dispersion of the profile of item scores (Waller & Meehl, 1998). For example, two informants may agree about the overall level of problems without demonstrating a strong pattern of agreement on specific constituent items. Difference scores capture the extent to which the dyad agreed on the overall level of symptoms, and $q$ correlations reflect agreement on symptom pattern. Therefore, by examining both types of indices we can determine which independent variables influence each aspect of agreement.

### Analyses

MANCOVAs were conducted to examine the effects of race/ethnicity on the cross-informant broadband scale scores from each measure, on difference scores between the pairs of informants, and on $q$ correlations between pairs of informants. Gender and the interaction between gender and race/ethnicity were also examined as independent variables. Covariates included youth age, gender, family income, and affiliation with ADM sectors of care. It was important to account for youth demographics in our analyses because raw scores on these behavior problem scales do not take into account age and gender norms. Furthermore, it was important to control for family income in our analyses because it is often argued that racial/ethnic differences in youth adjustment may be accounted for by socioeconomic disadvantage. Finally, as previously discussed, we controlled for sector affiliation because race/ethnicity was associated with ADM involvement and ADM involvement was associated with increased behavioral problems. Analyses were adjusted for sampling weights using SPSS version 10.0 (see Note).

### Results

#### Racial/Ethnic Differences on Behavior Problems, by Informant

Figure 1 displays the mean level of behavior problems reported by each informant, broken down by race/ethnicity. The preliminary multivariate test revealed significant effects of race/ethnicity, $F(18, 1665) = 3.25, p < .001$; gender, $F(6, 553) = 11.72, p < .001$; age, $F(6, 553) = 7.27, p < .001$; family income, $F(6, 553) = 2.90, p < .001$; and involvement in an ADM sector, $F(6, 553) = 6.84, p < .001$. There was no significant multivariate effect of the interaction between gender and race/ethnicity on the cross-informant broadband scales. In the following sections, follow-up univariate ANCOVA results are presented, focusing on the effects of race/ethnicity on behavior problems for each informant broadband scale.

#### Adolescent Reports

After covarying for gender, age, family income, and ADM
sector affiliation, race/ethnicity was not significantly associated with youth-reported internalizing problems or externalizing problems.

**Parent Reports.** After covarying for gender, age, family income, and ADM sector affiliation, results indicated that CBCL internalizing scores were associated with race/ethnicity, $F(3, 572) = 4.26$, $p = .005$, such that Caucasian adolescents received significantly higher scores than African American adolescents (Tukey HSD = 3.32, $p = .005$). CBCL externalizing scores were significantly associated with race/ethnicity, $F(1, 573) = 3.06$, $p = .028$, such that Caucasians received higher scores than African Americans (Tukey HSD = 2.74, $p = .034$), and Asian/Pacific Islanders (Tukey HSD = 4.64, $p = .035$).

**Teacher Reports.** With covariates held constant, race/ethnicity was associated with TRF internalizing scores, $F(3, 569) = 3.45$, $p = .016$, such that Caucasians received higher scores than African Americans (Tukey HSD = 2.34, $p = .029$). TRF externalizing scores were also significantly related to race/ethnicity, $F(3, 569) = 4.84$, $p = .002$, with African Americans receiving higher scores than Caucasians (Tukey HSD = 2.63, $p = .036$) and Asian/Pacific Islanders receiving lower scores than African Americans (Tukey HSD = 7.21, $p = .001$) and Caucasians (Tukey HSD = 4.89, $p = .039$).

**Racial/Ethnic Differences in Cross-Informant Discrepancies**

Figure 2 displays the estimated mean difference scores (adjusted for covariates) between the three dyads of interest, by race/ethnicity for each problem type. The preliminary multivariate test indicated that race/ethnicity, $F(12, 1671) = 4.33$, $p < .001$; gender, $F(4, 555) = 9.15$, $p < .001$; age, $F(4, 555) = 9.80$, $p < .001$; family income, $F(4, 555) = 4.31$, $p = .002$; and ADM sector involvement, $F(4, 555) = 3.42$, $p = .009$, were significantly associated with the multivariate set of inter-informant difference scores, but the interaction between race/ethnicity and gender was not. The following sections present follow-up univariate ANCOVA results for the independent variable of race/ethnicity on each dyad broadband difference score.

**Adolescent–Parent Difference Scores.** After controlling for gender, age, ADM sector affiliation, and family income, internalizing YSR–CBCL difference scores were significantly associated with race/ethnicity, $F(3, 568) = 5.42$, $p = .001$, such that Caucasians had lower difference scores than African Americans (Tukey HSD = 4.82, $p < .001$), Hispanics (Tukey HSD = 2.82, $p = .033$), and Asian/Pacific Islanders (Tukey HSD = 4.63, $p = .047$). Although on average African American, Hispanic, and Asian/Pacific Islander youth endorsed more internalizing problems than their parents (positive difference scores), Caucasian parents reported more internalizing problems than their adolescents (negative difference score). YSR–CBCL externalizing difference scores were significantly associated with race/ethnicity, $F(3, 570) = 2.94$, $p = .033$), such that Caucasians had lower difference scores than African Americans (Tukey HSD = 3.29, $p = .020$), Hispanics (Tukey HSD = 2.82, $p = .002$), and Asian/Pacific Islanders (Tukey HSD = 4.63, $p = .047$).
As with internalizing problems, African American, Hispanic, and Asian/Pacific Islander youth endorsed more externalizing problems than their parents (positive difference scores); Caucasian parents reported more externalizing problems than their adolescents (negative difference score).

### Adolescent–Teacher Difference Scores

After holding covariates constant, race/ethnicity was significantly associated with YSR–TRF internalizing difference scores, $F(3, 565) = 4.59, p = .003$, such that Caucasians received lower difference scores than African Americans (Tukey HSD = 3.94, $p = .003$) and Asian/Pacific Islanders (Tukey HSD = 5.38, $p = .013$). YSR–TRF externalizing problems were significantly associated with race/ethnicity, $F(3, 565) = 2.94, p = .033$, such that Asian/Pacific Islanders received higher difference scores than Caucasians (Tukey HSD = 4.85, $p = .048$) and African Americans (Tukey HSD = 6.83, $p = .010$). In terms of absolute differences, adolescents on average self-reported more internalizing and externalizing problems than were reflected in the teacher reports.

### Parent–Teacher Difference Scores

After holding covariates constant, there were no significant effects of race/ethnicity or age on CBCL–TRF internalizing difference scores. However, a significant effect of race/ethnicity emerged for CBCL–TRF externalizing difference scores, $F(3, 565) = 4.86, p = .002$, such that African American youth received lower difference scores than Caucasians (Tukey HSD = 5.24, $p < .001$) and Asian/Pacific Islanders (Tukey HSD = 5.64, $p = .043$). In general, parents reported more problems than did teachers. However, these differences were less pronounced for African American adolescents than for Caucasians and Asian/Pacific Islanders.

### Racial/Ethnic Differences in Cross-Informant $q$ Correlations

Figure 3 displays the estimated mean $q$ correlations (adjusted for covariates) for the three dyads, by race/ethnicity for each problem type. The preliminary multivariate test indicated that race/ethnicity, $F(18, 1710) = 2.69, p < .001$; gender, $F(6, 568) = 3.94, p = .001$; age, $F(6, 568) = 5.09, p < .001$; ADM sector involvement, $F(6, 568) = 2.19, p = .043$; and the interaction between gender and race/ethnicity, $F(18, 1710) = 3.495, p < .001$, were significantly associated with the multivariate set of inter-informant $q$ correlations, but family income was not. Follow-up univariate ANCOVA results for the effects of race/ethnicity on each dyad broadband $q$ correlation are presented in the following sections.

### Adolescent–Parent $q$ Correlations

YSR–CBCL internalizing $q$ correlations were not associated with race/ethnicity after controlling for age, family income, and ADM sector affiliation. In contrast, YSR–CBCL externalizing $q$ correlations were associated with race/ethnicity, $F(3, 576) = 4.12, p = .007$, such that Caucasians had higher $q$ correlations than Hispanics (Tukey HSD = .068, $p = .006$) and Asian/Pacific Islanders (Tukey HSD = .101, $p = .022$). The interaction of race/ethnicity and gender was not significantly associated with YSR–CBCL externalizing $q$ correlations.

### Adolescent–Teacher $q$ Correlations

After taking gender, age, ADM sector, and...
family income into account, there was a significant effect of race/ethnicity on YSR–TRF internalizing q correlations, \( F(3, 573) = 2.84, p = .037 \); however, this effect was moderated by gender, \( F(3, 573) = 3.51, p = .015 \). Figure 4 illustrates the nature of this interaction. Post hoc univariate ANCOVAs run separately for girls and boys indicated that the effect of race/ethnicity on YSR–TRF internalizing q correlations was significant for girls, \( F(1, 183) = 2.92, p = .035 \), but not for boys. For girls, African Americans had higher YSR–TRF internalizing q correlations than Caucasians (Tukey HSD = .204, \( p = .023 \)) and Hispanics (Tukey HSD = .159, \( p < .001 \)).

Parent–Teacher q Correlations. There was also a significant effect of race/ethnicity on CBCL–TRF internalizing q correlations, \( F(3, 576) = 5.22, p = .01 \), such that African Americans had lower q correlations than Caucasians (Tukey HSD = .256, \( p = .007 \)) and Hispanics (Tukey HSD = .234, \( p = .026 \)) and Asian/Pacific Islanders had lower q correlations than Caucasians (Tukey HSD = .305, \( p = .043 \)). These results held after controlling for age, family income, ADM sector, and gender. The interaction of race/ethnicity and gender also had a significant effect on CBCL–TRF externalizing q correlations, \( F(3, 573) = 2.71, p = .044 \). Figure 4 illustrates the nature of this interaction. Post hoc univariate ANCOVAs run separately for the four racial/ethnic groups indicated that the effect of gender on CBCL–TRF externalizing q correlations was significant for Asian/Pacific Islanders, \( F(1, 41) = 4.48, p = .046 \), but not for Caucasians, Hispanics, or African Americans. Among Asian/Pacific Islanders, boys had higher CBCL–TRF externalizing q correlations than girls.

Table 1 presents an overview of the main findings regarding racial/ethnic differences in informant reports, inter-informant discrepancies, and inter-informant agreement.

**DISCUSSION**

The results of this study indicate that reliance on single informant reports can yield contradictory conclusions regarding racial/ethnic differences in adolescent psychopathology. According to parent reports, Caucasian adolescents have more internalizing and externalizing problems than minority youth, suggesting greater psychopathology. According to teacher reports, African American youth in general have fewer internalizing problems, and Asian/Pacific Islander youth have fewer externalizing problems. However, these racial/ethnic differences did not emerge with youth reports. There was little variability by race/ethnicity in youth-reported problem scores. This pattern of findings suggests that reports of ethnic
differences derived from single informant reports must be considered carefully. Studies that report marked racial differences in youth problems using single informant data (e.g., Loo & Rapport, 1998; Tolan & Henry, 1996) are valuable in their own right, but policy implications must be drawn with caution. Problem rate estimates often serve as needs assessments for services (e.g., outreach, prevention) targeting groups at heightened risk. Such important decisions should be based on data reconciling reports from multiple informants.

Our results indicate that race/ethnicity was frequently associated with patterns of inter-informant discrepancies in ratings of adolescent psychopathology. Patterns of adolescent–parent discrepancy scores indicate that the reports of ethnic minority parents might not reveal problems that minority youth self-identify. Whereas previous literature suggests that youth report fewer behavioral problems than do their parents, especially with regard to conduct-related problems (e.g., Herjanic & Reich, 1997; Hodges, Gordon, & Lennon, 1990; Loeb, Green, Lahey, & Southamer-Loeb, 1989), our data reveal that this pattern holds only for Caucasian dyads. In the minority families, youth tended to report more externalizing and internalizing problems than did their parents. Although this general pattern was not predicted, there are competing interpretations for these racial/ethnic differences in parent–youth discrepancies. First, Caucasian parents may be more sensitive reporters of youth maladjustment than minority parents. This may suggest racial/ethnic differences in parental monitoring (Bird et al., 2001) or racial/ethnic differences in familiarity with Western conceptions of child mental health. Caucasian parents may have more exposure to education about psychopathology, and may thus be more vigilant of behavior problems than minority parents (Li, Su, Townes, & Varney, 1989). It is also possible that minority parents shouldering the burdens of migration or discrimination may be less sensitive to their children’s distress and thus less apt to notice symptoms (Cauce et al., 2002). Second, Caucasian parents may be prone to overpathologizing or overreporting behavior problems in their adolescent children. Compared to other racial/ethnic groups, Caucasian parents may hold overly negative perceptions of their adolescents, perhaps reflecting more conflicted parent–child relations or hypervigilance regarding youth conduct. However, the extant literature currently offers less support for this interpretation. In either case, these findings have implications for service delivery. Since parents often initiate help-seeking, racial/ethnic differences in parental problem identification may contribute to higher rates of unmet mental health need among minority youth (Shaffer et al., 1996).

Examination of discrepancies between the ratings of teachers and those of other informants generally supported our first two hypotheses. Compared to ratings provided for Caucasians, teachers reported fewer internalizing problems when assessing African American and Asian/Pacific Islander adolescents. Teachers may not be primed to expect these types of adjustment difficulties in African American or Asian/Pacific Islander students. Teachers may attribute observed behaviors to racial stereotypes (e.g., Asian

**FIGURE 4.** Inter-informant q correlations as a function of race/ethnicity and gender. Note. CA = Caucasian; AA = African American; HA = Hispanic; API = Asian/Pacific Islander; INT = internalizing behavior score; EXT = externalizing behavior score.
Americans are quiet because they are different) and not to emotional problems. Teachers may be least likely to report problems that are counter to prevailing racial stereotypes. This is consistent with our finding that youth–teacher discrepancies reflect an underidentification of externalizing problems in Asian/Pacific Islander students, relative to Caucasian and African American youth. Alternatively, it is possible that these less visible problems manifest themselves differently among minority youth or that minority youth do not reveal signs of these problems at school.

Teacher expectancies about base rates of problems in ethnic groups also appeared to be related to elevated reports of externalizing problems among African Americans, as we hypothesized. Compared to parents, teachers reported more externalizing problems for African Americans. These results are consistent with previous studies of inter-informant discrepancies, suggesting that teachers are more likely than parents to identify externalizing or disruptive problems in African American youth (Fabrega et al., 1996; Gottlieb et al., 1991; Youngstrom et al., 2000; Zimmerman et al., 1995). This robust finding suggests consistent differences in the perspectives of the two key informants who often function as gatekeepers to treatment. Concerns about possible teacher bias are further supported by evidence that teachers of African American children report more behavior problems than do trained independent observers (Puig et al., 1999). At the same time, African American parents may view child behavior through a lens shaped by cultural parenting beliefs and values. African American parents tend to make different judgments about the seriousness and prognosis of child externalizing behavior problems than teachers and clinicians (Lambert, Puig, Lyubansky, Rowan, & Winfrey, 2001). Yet another competing explanation for teacher–parent discrepancies in ratings of African American youth is that there may be more cross-situational variability in the behavior of African American youth in home and school settings.

Whatever the cause of these inter-informant discrepancies, African American parents may not see their children’s behavior as problematic, but their children may nevertheless be referred to special education services (Gottlieb et al., 1991). Higher rates of teacher identification of externalizing problems among African American youth may partially account for their overrepresentation in special education services for emotional disturbance (McCabe et al., 1999; Oswald et al., 1999), when disruptive disorders are the most prevalent problem type (Garland et al., 2001).

Our results suggest that race/ethnicity has distinct influences on differences in levels of problems reported and intrarater agreement about symptom patterns. There were no significant effects of race/ethnicity on parent–youth agreement about internalizing symptom profiles. However, with regard to parent–youth agreement about externalizing problems, we found support for our hypothesis that there would be lower agreement about specific behavior problems among the

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**Table 1**

Summary of Significant Racial/Ethnic Differences in Informant Reports, Discrepancies, and Agreement

<table>
<thead>
<tr>
<th>Informant/Dyad</th>
<th>Internalizing behavior problems</th>
<th>Externalizing behavior problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single informant reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescent report</td>
<td>No differences</td>
<td>No differences</td>
</tr>
<tr>
<td>Parent report</td>
<td>CA &gt; AA</td>
<td>CA &gt; AA, API, HA</td>
</tr>
<tr>
<td>Teacher report</td>
<td>CA &gt; AA</td>
<td>AA &gt; CA &gt; API</td>
</tr>
<tr>
<td>Cross-informant discrepancies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescent–parent</td>
<td>Lower discrepancies for CAs than for minorities (API, AA, HA)</td>
<td>Lower discrepancies for CAs than for minorities (API, AA, HA)</td>
</tr>
<tr>
<td>Adolescent–teacher</td>
<td>Lower discrepancies for CAs than AAs and APIs</td>
<td>Lower discrepancies for CAs and AAs than for APIs</td>
</tr>
<tr>
<td>Parent–teacher</td>
<td>No differences</td>
<td>Lower discrepancies for CAs and APIs than for AAs</td>
</tr>
<tr>
<td>Cross-informant q correlations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescent–parent</td>
<td>No differences</td>
<td>Agreement higher for CAs than for HAs and APIs</td>
</tr>
<tr>
<td>Adolescent–teacher</td>
<td>Agreement higher for AA girls than for CA girls</td>
<td>Agreement higher for AA girls than for CA and HA girls</td>
</tr>
<tr>
<td>Parent–teacher</td>
<td>Agreement higher for CAs and HAs than for APIs and AAs</td>
<td>No differences</td>
</tr>
</tbody>
</table>

Note. CA = Caucasian; AA = African American; API = Asian/Pacific Islander; HA = Hispanic.
two immigrant family groups (Asian/Pacific Islander and Hispanic) than among the Caucasian dyads. Youth in these families may differ from their parents in their levels of acculturation and thus view their own behaviors in a different cultural context than their parents, resulting in decreased agreement about behaviors that constitute problems. Asian/Pacific Islander and Hispanic parents may have seen certain behaviors as oppositional or disruptive, while the adolescents viewed these behaviors as normative modes of expression. Additionally, in families with intergenerational cultural rifts, youth may have reported behavior problems that they were successful in hiding from their parents. These intergenerational cultural gaps may have important implications for the assessment and treatment of behavior problems in immigrant families. In this study, racial/ethnic effects on youth–teacher agreement were moderated by gender. Consistent with findings of Youngstrom et al.’s (2000) study of male adolescents, our results suggest that for male students, there were no racial/ethnic differences in youth–teacher agreement about internalizing or externalizing problems. However, there were racial/ethnic differences for girls: Youth–teacher agreement was superior for African American girls than for girls from other racial/ethnic backgrounds. This finding is interesting and perhaps suggests that concerns about teacher bias in assessing African American youth behavior problems may be more restricted to African American boys. However, this result was not previously hypothesized and will require further investigation and replication.

Finally, our results regarding parent–teacher agreement on symptom profiles were surprising. Our data on parent–teacher agreement on internalizing problems ranged from no agreement (q correlations close to zero) for Caucasians and Hispanics to active disagreement (negative q correlations) for African Americans and Asian/Pacific Islanders. Our results in a service-using sample reflect much more disagreement than previous studies of youth at arguably lower risk (e.g., Youngstrom et al., 2000). It is perhaps not surprising that our adult informants in the home and school settings provided ratings of emotional problems that are difficult to observe, yielding unrelated symptom profiles. However, it is more puzzling to explain sets of ratings that are extremely divergent. It may be that teachers and African American and Asian/Pacific Islander parents hold opposing definitions of these symptoms, causing perceptions of these behaviors to be culturally embedded. Parent–teacher agreement on externalizing problems was higher and within the range reported in previous studies. We found a significant interaction between race/ethnicity and gender, such that agreement about externalizing problems was better for Asian/Pacific Islander boys than Asian/Pacific Islander girls. This may be related to both teacher expectations and parental cultural distress thresholds. Based on prevailing stereotypes, teachers may be least likely to look for conduct-related problems in Asian/Pacific Islander girls, and Asian/Pacific Islander Islander parents may have heightened cultural-related concerns about conduct problems in their daughters. Again, these findings that were not hypothesized await replication and further study before firm conclusions can be drawn.

In summary, race/ethnicity has multiple apparent associations with interinformant agreement and discrepancies in ratings of adolescent psychopathology. These findings have multiple implications and potential explanations that can be classified into three categories: cultural differences in adult distress thresholds, racial/ethnic bias among teachers, and cultural differences in symptom expression. A limitation of the current study lies in the inability to test these competing hypotheses. Clarification of the determinants of ethnic differences in interinformant discrepancies and agreement in ratings of youth problems awaits future research. A second limitation of the study arises from the composition of our sample. Although the vast majority of our parent informants were biological parents and closely related caregivers, our high-risk sample included some youth in out-of-home placements, and the accuracy of parent reports may be limited in these circumstances.

Notwithstanding these study limitations, there are some immediate implications of our results. First, epidemiologic studies reporting racial/ethnic differences in youth psychopathology may be misleading when based on single informant reports. Second, youth in distress may not be finding their way to mental health services if parents are relied upon to trigger help-seeking, and this may be especially true for minority youth. Implementation of screening protocols and school-based services may provide a safety net for these vulnerable and underserved youth. Third, our findings suggest that teachers and parents from certain minority groups may need to reconcile differences in their assessments of adolescents in order to arrive at mutually agreeable goals and treatments in Individualized Education Programs for special education services.

In particular, our results seem especially relevant to national concerns about the overrepresentation of African American youth in special education and juvenile justice. In the last 20 years, there has been a growing amount of disproportionality in the representation of African American youth in placements for emotional disturbance (Losen & Orfield, 2002; National Research Council, 2002). Of particular concern is the evidence that these services may not be meeting the needs of African American youth. Postgraduation outcomes for this group are strikingly inferior, with high rates of subsequent involvement in the adult or juvenile correctional systems (Oswald, Coutinho, & Best, 2002). Furthermore, African American youth in schools are more likely to receive harsh disciplinary penalties, including suspension and expulsion for behavioral offenses, than are Caucasian youth (Skiba, Michael, Nardo, & Peterson, 2002). Our findings suggest that these educational decisions are often supported by teacher reports of behavioral problems that are not necessarily corroborated by youth self-reports and parent impressions. For this particularly vulnerable group, it is imperative that alternative support services be considered before placement or removal of the youth. Osher, Woodruff, and Sims (2002) proposed a spectrum of more responsive services, in-
including universal prevention, targeted early interventions, and intensive individualized interventions within mainstream educational placements.

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Authors’ Notes

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Note

We further compared each constituent ANCOVA model produced by SPSS with a comparable regression model using STATA Version 7.0 to take both sampling weights and stratification design effects into account. The two methods of analysis produced highly comparable results (i.e., same pattern of significant findings for all race/ethnicity and gender effects). Therefore, we chose to report the original SPSS MANCOVA results because the preliminary MANCOVA controls for Type I error with the multiple dependent variables under examination, and these analyses permitted estimation of marginal means by gender and race/ethnicity to aid interpretation of significant gender by race/ethnicity interaction terms.

References


