Over- and Undercontrolled Clinic Referral Problems of Jamaican and American Children and Adolescents: The Culture General and the Culture Specific

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Child behavior problems and corresponding clinic referral patterns may be significantly influenced by cultural factors. Prevailing values and childrearing practices within a culture may discourage development of some child problems while fostering others. We explored this possibility, focusing on clinic referral problems of two different societies: (a) Jamaica, where the Afro-British culture discourages child aggression and other undercontrolled behavior and possibly fosters inhibition and other overcontrolled behavior, and (b) the United States, where undercontrolled child behavior is seemingly more generally accepted. We coded clinic-referred problems listed by parents of Jamaican and American youngsters (N = 720). Cross-cultural differences were striking: Overcontrolled problems were noted more often for Jamaican than American youngsters, whereas the converse was true for undercontrolled problems. These and other findings suggest that factors such as culture and sex may be linked to substantial differences in the problem solutions for which youngsters of different countries are treated in clinics.

It has long been argued that culture can influence personality development and psychopathology (Al-Issa, 1982; Brislin, 1983; Draguns, 1982; Eaton & Weil, 1955; Erickson, 1961; Eron & Peterson, 1982; Whiting & Child, 1983). The argument should apply to children and adolescents as well as adults, yet we have remarkably little evidence on whether patterns of disturbance and psychopathology in childhood and adolescence relate to the culture in which the youngsters have developed. How might investigators fill this gap? One approach is to begin with this basic question: Are there differences from one culture to another in the types of behavioral and emotional problems for which youngsters are referred and treated?

To address this question effectively, researchers must (a) focus on empirically established problem patterns of broad clinical interest across cultures, (b) compare cultures that differ in theoretically important ways relevant to these problem patterns, and (c) structure comparisons that address heuristic models and thus contribute to theory on the role of culture (see Weisz, in press). In the present study, we sought to meet these three requirements.

We focused on two empirically derived broadband “syndromes” of child problem behavior—both clinically significant and relatively robust across cultures: overcontrolled problems (e.g., fearfulness, sleep problems, somaticizing) and undercontrolled problems (e.g., fighting, disobedience, stealing). The two syndromes have been found in more than a dozen studies of behavior problems (see Achenbach & Edelbrock, 1978) and in research with Americans (e.g., Achenbach, 1978; Achenbach & Edelbrock, 1979), British (e.g., Collins, Maxwell, & Cameron, 1962), Sicilians (Peterson, 1965), Japanese (Hayashi, Toyama, & Quay, 1976), Jamaicans (Lambert, 1987), and Greeks, Finns, and Iranians (Quay & Parskeuopoulos, 1972).

We compared two cultures, those of Jamaica and the United States, that appear to differ in theoretically important ways directly relevant to the behavior problem syndromes of interest. Because most Jamaicans are descendants of British-owned slaves from Africa, cultural rules and childrearing practices are an amalgam of British and African traditions. For example, the British tradition of respect for authority figures (Zigler & Child, 1982) is combined with the African tradition of respect for one’s elders, distinguishing Jamaica from the United States, where youth is admired and a certain degree of brashness and nonconformity may actually be expected as part of youth. Jamaican adults are quite intolerant of many forms of undercontrolled behavior in children. Children are admonished against lying, stealing, and being “rude” (e.g., disrespectful, impolite, defiant, disobedient; Y. A. Cohen, 1956; Kerr, 1963). Rude and aggressive children risk being punished and berated by parents and teachers (Y. A. Cohen, 1955a, 1955b, 1955c,
Although undercontrolled behavior seems to be suppressed in Jamaica, certain kinds of overcontrolled behavior appear to be more often condoned and even encouraged by Jamaican than by American adults (Clarke, 1957; Y. A. Cohen, 1955a, 1955b, 1955c). Jamaican youngsters are reinforced for being subservient and submissive (Y. A. Cohen, 1955a; Winkle, 1961), and Jamaican adults often describe a quiet, unassertive child as being "nice."

One result of these apparent Jamaican-U.S. differences may be differences in the kinds of problems seen by child clinicians in the two countries. Two quite different patterns of cross-national difference can be envisioned, however. The two reflect recently proposed models of cultural influence (see Weisz, Suwanlert, Chaiyasit, & Walter, 1987; cf. Draguns, 1973).

The problem suppression-facilitation model (described by Weisz et al., 1987) holds that cultural differences may directly affect the incidence of certain child problems, suppressing (e.g., via punishment or social pressure) the development of disapproved behavior and facilitating (e.g., through reward or modeling) the development of behavior deemed acceptable by society. Following this model, the cultural patterns described earlier might make overcontrolled problems more prevalent in Jamaican than U.S. clinics and undercontrolled problems more prevalent in U.S. than Jamaican clinics.

The adult distress threshold model (Weisz et al., 1988) holds that culturally mediated adult attitudes may help to determine which child behaviors are considered to be problems and which will reach the adults' threshold for distress and referral to a specialist. One might speculate for example, that the threshold for undercontrolled behavior would be set at a lower level among Jamaican adults than Americans and that the reverse would be true of overcontrolled behavior. This could foster a greater prevalence of undercontrolled problems in Jamaican than in American clinics and a greater prevalence of overcontrolled problems in American than in Jamaican clinics.

So the two models of cultural influence lead to precisely opposite predictions. Which model provides an appropriate framework for understanding child and adolescent referral problems in Jamaica and the United States or does neither apply? To find out, we surveyed the records of clinic-referred youngsters in Jamaica and the United States, recording the problems their parents noted at intake and coding whether each was an over- or undercontrolled problem. Through analyses of these coded problems, we sought a more refined understanding of how culture may relate to the patterns of problems seen by clinicians in different nations.

We had other goals as well. We sought to expand the currently thin base of cross-cultural data on child psychopathology and to generate information of particular value to researchers and clinicians interested in the virtually unstudied cultures of the Caribbean. Another goal was to explore the roles of child age, sex, and urban versus rural living environment and the interaction of each with culture.

Method

Research Design and Sample Characteristics

The sample included 720 clinic-referred children, 360 Jamaican and 360 American. Within each culture, the sample was perfectly balanced for age group (6–11 vs. 12–17), sex, and urban versus rural residence, forming a 2 (culture) × 2 (age group) × 2 (sex) × 2 (urban vs. rural) factorial design with equal-cell ns throughout.

The U.S. sample was drawn from clinics in Washington, DC, Charlotte, NC, and three rural counties in North Carolina and Tennessee. The Washington and Charlotte clinics provided urban samples; however, youngsters referred to those clinics who actually lived in rural areas were classified according to place of residence. The Jamaican sample was drawn from the only two child treatment facilities on the island, both located in Kingston. Thus a sample of U.S. clinics provided the American subjects, whereas the Jamaican subjects were furnished by the entire population of clinics in Jamaica. Both Jamaican clinics provide services to urban and rural youngsters. Clinicians from one of these facilities travel to rural general hospitals in order to serve rural clients. The records of contacts with these rural youngsters are kept in the clinic, and we had access to these records.

In both countries, the sample included clinic intakes spanning the years 1982–1984. Using stratified random sampling, we drew cases from clinic records blindly but with the constraints that all design cells within each culture contain equal numbers and that neither the culture, sex, nor urban-rural factors be confounded with age. Thus, once any cell of the design was filled, no additional subjects were accepted for that cell.

Procedure

All clinic data were gathered by trained recorders, two Jamaicans in Jamaican clinics and two Americans in U.S. clinics. For all youngsters sampled, the recorders reviewed the full written report of the intake interview with parents (or guardians) and listed verbatim each child problem reported to admitting clinicians during the interview. The two Jamaican recorders, working independently on 30 cases, achieved a high level of agreement on number of problems reported, r = .79. The corresponding figure for the two U.S. recorders independently coding 56 U.S. cases was r = .99.

Each problem was later coded as overcontrolled, undercontrolled, or other. The two Jamaican coders achieved good agreement: Kappa for the overcontrolled problems was .89, for undercontrolled problems, .85, and for other, .74. The U.S. coders also achieved good agreement: Kappa was .91 for overcontrolled, .94 for undercontrolled, and .96 for other. Thus there was substantial agreement among the Jamaican recorders and among the U.S. recorders at the level of total problems and at the level of specific overcontrolled, undercontrolled, and other problems.

To code problems as overcontrolled, undercontrolled, or other in an empirically acceptable manner required, first, that each problem be coded for its correspondence to any problem appearing on the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983). The 118-item CBCL is widely used, well validated, and evidently the best available means of classifying specific child behavior problems into over- and undercontrolled syndromes. Principal-components analyses (Achenbach, 1978; Achenbach & Edelbrock, 1979, 1983) have revealed broad-band over- and undercontrolled syndromes in 6–11-year-old boys and girls and 12–16-year-old boys and girls, considered separately (also among 4–5-year-old boys and girls). Each syndrome includes from 41 to 51 of the CBCL problems, across the various Age × Sex groups.

Two trained U.S. coders judged whether each individual Jamaican or U.S. problem matched any of the 118 CBCL problems, and if so, which one. For this coding, the problems were listed individually and were not labeled as to their country of origin. Working independently on a sample of 222 problems from 48 children and adolescents, the two coders achieved good agreement on whether each problem did or did not have a CBCL equivalent (more than 80% of the problems listed within each culture were judged to have a CBCL equivalent); kappa was .72. More-
over, for those problems deemed to have an equivalent, the coders also achieved good agreement on which one of the 118 CBCL problems was the appropriate match; kappa was .84.

**Over- and Undercontrolled Scores**

Once this CBCL coding was complete, we computed an overcontrolled and undercontrolled score for each child, following procedures developed by Weisz et al. (1987). First, we calculated the total number of each child’s problems that fit the empirically derived overcontrolled syndrome for each child’s Age × Sex group in principal-component analyses by Achenbach and Edelbrock (1983). This total was divided by the number of all problems on the CBCL that load on the syndrome; these numbers thus represented the proportion of all possible overcontrolled problems that each youngster’s list of referral problems included. These decimal values were multiplied by 100 to convert them to percentages. Finally, to account for variations in the productivity of parents during the interviews, we divided the adjusted overcontrolled score by the total number of problems listed for the child, then multiplied by 10 (the approximate ceiling for number of problems listed). Parallel procedures were followed in computing each child’s undercontrolled score.

**Results**

The numerous effects tested within the four-factor model posed a risk of significant findings due to chance. To minimize this risk, we applied the Bonferroni correction (Neter & Wasserman, 1974), which allowed us to accept only findings significant at or below the .001 level. Also, the utilization of large samples in our study afforded high statistical power. This created potential problems in the interpretation of statistically significant results. To limit the chance of erroneous inferences, we applied J. Cohen’s (1977) criteria for assessing the magnitude of effects. Cohen classifies analysis of variance (ANOVA) effects as small if they account for 1% to 5.9% of the variance, medium if 5.9% to 13.8%, and large if greater than 13.8%.

**Total Problems**

The total number of problems reported for each child was subjected to a 2 × 2 × 2 × 2 (Culture × Sex × Age × Urban/Rural) ANOVA. Two significant effects emerged. One was an age main effect, \( F(1,704) = 18.61, p < .001 \). More problems were reported for children (\( M = 5.43 \)) than adolescents (\( M = 4.53 \)). The other was a highly significant urban/rural main effect, \( F(1,704) = 29.59, p < .0001 \). Urban children presented more problems (\( M = 5.55 \)) than rural children (\( M = 4.42 \)). The effect of age accounted for 2.45% of the variance in total problem scores, and place of residence accounted for 3.89%, so these effects were small according to J. Cohen’s (1977) criteria.

**Overcontrolled and Undercontrolled Problems**

In the analysis of over- and undercontrolled problems, we initially used two approaches. Because quantitative experts disagree on whether or not percentage data should be arcsine transformed before analysis (see Winer, 1971), we used two approaches. We subjected the over- and undercontrolled scores in their decimal form to an arcsine transformation (Winer, 1971) for one wave of analyses, and we used the untransformed data in the second wave. The results were quite similar, with the same effects significant in both waves of analysis. So, we report here the results only from the wave involving untransformed data.

We used a 2 × 2 × 2 × 2 (Culture × Sex × Age × Urban/Rural × Under- vs. Overcontrolled) repeated measures ANOVA, with over- versus undercontrolled as a repeated measure factor. The analysis yielded three significant effects. First, a significant effect for the under- versus overcontrolled factor, \( F(1,704) = 366.24, p < .0001 \), revealed that undercontrolled problems (\( M = 11.28 \)) were noted much more often than overcontrolled problems (\( M = 3.71 \)). The effect accounted for 52.02% of the variance and was considered “large” by J. Cohen’s (1977) standards.

The second effect was a Culture × Over- vs. Undercontrolled interaction, \( F(1,704) = 15.87, p < .0001 (2.25\% of variance, “small” by J. Cohen’s, 1977, standards). The interaction resulted from the pattern shown in Figure 1: Overcontrolled problems were reported more often for Jamaican youngsters (\( M = 4.28 \)) than for their American counterparts (\( M = 3.13 \)), \( F(1,704) = 14.50, p < .002 (1.90\% of the variance, a “small” effect). Viewing the interaction from the other direction revealed that in both cultures the undercontrolled problems were noted more often than the overcontrolled; in Jamaica, \( F(1,352) = 114.25, p < .0001 (32.45\% of the variance, a “large” effect).

The third effect was a Sex × Under- versus Overcontrolled interaction, \( F(1,704) = 35.90, p < .0001 (5.10\% of the variance, a “small” effect). Overcontrolled problems were reported more often for girls (\( M = 4.62 \)) than boys (\( M = 2.97 \)), \( F(1,704) = 25.4, p < .0001 (3.23\% of the variance, a “small” effect), whereas undercontrolled problems were reported more often for boys (\( M = 12.76 \)) than girls (\( M = 9.83 \)), \( F(1,704) = 30.69, p < .0001 (4.04\% of the variance, a “small” effect). Viewing the interaction from the other direction revealed that undercontrolled problems were noted more often than overcontrolled problems for both girls, \( F(1,352) = 79.56, p < .0001 (22.60\% of the variance, a “large” effect), and boys, \( F(1,352) = 345.46, p < .0001 (98.14\% of the variance, a “large” effect).

**Most Common Problems in Jamaican and U.S. Samples**

Finally, to examine cross-national differences in the level of specific problems, we compared the most common referral problems in the two national samples. We tallied the number of children in each sample for whom each individual problem was reported, focusing on the 12 most common referral problems in Jamaica and the United States. Each problem was identified in another study, principal-components analyses were performed on a 24-problem checklist completed for clinic-referred Jamaican youngsters (see Lambert, 1987). This resulted in components that resembled the over- and undercontrolled syndromes found in other nationalities using other measures. However, we chose the Achenbach and Edelbrock (1983) CBCL criteria to categorize Jamaican and American problems as overcontrolled and undercontrolled in the present study because (a) analyses of the 118-item CBCL generated 41 to 51 problems classifiable into each of the two syndromes, whereas analyses of the 24-item Jamaican checklist generated a much smaller array of classifiable items, and (b) the U.S. syndromes were derived from a larger sample.
adolescents are treated in clinics. The findings support a problem suppression—facilitation model—the notion that characteristics of a culture (e.g., values, expectancies, and childrearing practices) may suppress the development of certain types of child behavior problems and foster or facilitate the development of others. Overcontrolled referral problems as a whole were more common in the Jamaican than in the American sample, whereas undercontrolled problems were more common in American than in Jamaican youngsters.

These findings are in harmony with the idea that the Afro-British Jamaican tradition of intolerance toward undercontrolled, acting out behavior, in conjunction with the promotion of politeness and respectfulness, may discourage the development of undercontrolled problems, at least in comparison with the U.S. traditions and practices. The findings are also consistent with the complementary idea that the traditional Jamaican preference for submissiveness and docility in children, and the concomitant childrearing practices, may foster the development of overcontrolled problems to a greater extent than do U.S. traditions and practices. This implication is consistent with recent data on child and adolescent clinic-referred problems in Thailand and the United States. Thai youngsters, like their Jamaican counterparts, are discouraged from showing undercontrolled behavior and are encouraged to be self-controlled, submissive, and respectful to elders. And Thai youngsters, like their Jamaican counterparts, were found to show more overcontrolled referral problems than Americans and fewer undercontrolled referral problems than Americans (Weisz et al., 1987).

Some of our findings involved group differences that are similar across cultures. Most cross-cultural investigators agree that such cross-cultural similarities can be as valuable theoretically as cross-cultural differences (see Draguns, 1982; Jahoda, 1977; Triandis & Brislin, 1984). We found, for example, that in both Jamaica and the United States, undercontrolled problems were more often reported for boys than girls. The reverse was true for overcontrolled problems. This is reminiscent of previous findings on sex differences in Western cultures (e.g., Achenbach & Edelbrock, 1981; Rutter & Garmezy, 1983; Rutter, Tizard, & Whitmore, 1970; Weisz et al., 1987). However, our failure to find any sex differences on total problems does not fit the popular notion that clinic-referred boys present more behavior problems than girls; the only sex differences we could find concerned the type, not the number, of behavior problems.

Undercontrolled problems outnumbered overcontrolled problems in both national samples and within urban and rural settings of each culture. Such findings suggest the possibility that undercontrolled problems are either so prevalent in the general population, or so readily observable and/or disruptive, that they outnumber overcontrolled problems in clinic samples across diverse cultures and across different living environments within the same culture. To understand the reason(s) for this pattern, we will need to complement data on clinic samples with data on general population samples.

Having interpreted a number of our findings, we should comment on two limitations. First, although we sampled multiple clinics, we would certainly not claim to have represented all regions of the United States or Jamaica. The generality of our findings can only be fairly assessed by the accumulation of data from other regions of both countries; and it will be important

![Graph](image-url)  
**Figure 1.** Mean scores for Jamaican and U.S. youngsters on overcontrolled and undercontrolled problems.
to complement the present investigation with epidemiologic re-
search on the prevalence of similar problems among general
population samples of nonreferred children. A second limita-
tion is that although the study addressed the distress threshold
model, it did not directly assess possible differences in adult
attitudes toward under- and overcontrolled problems across
Jamaican and U.S. cultures. Such direct assessment would be an-
other useful objective for future research. Epidemiologic and adult
date studies could help clarify the extent to which the present
findings reflect actual problem prevalence in Jamaican and
American youngsters versus bias of various kinds in the referral
process. For example, it is certainly possible that Jamaican
children are referred less often than Americans for undercontrolled
problems because Jamaican parents view "acting out" as being
dishonorable and are thus embarrassed to report such behavior
when seeking clinical help. Despite its limitations, this study
raises some potentially im-
portant clinical and theoretical issues. It suggests that problems
for which children and adolescents are seen by mental health
professionals may differ between cultures and that these differ-
ces may result in part from cultural differences in values and
childrearing practices. It also suggests that child behavior

Table 1

<table>
<thead>
<tr>
<th>Problem</th>
<th>U.S. (%)</th>
<th>Jamaica (%)</th>
<th>χ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most common in U.S. sample</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Poor schoolwork</td>
<td>33.9</td>
<td>31.9</td>
<td>2.16</td>
<td>ns</td>
</tr>
<tr>
<td>2. Disobedient at home</td>
<td>19.3</td>
<td>12.5</td>
<td>6.00</td>
<td>&lt;.025</td>
</tr>
<tr>
<td>3. Temper tantrums, hot temper</td>
<td>15.4</td>
<td>8.8</td>
<td>6.96</td>
<td>&lt;.010</td>
</tr>
<tr>
<td>4. Gets into fights</td>
<td>14.3</td>
<td>21.1</td>
<td>5.97</td>
<td>&lt;.025</td>
</tr>
<tr>
<td>5. Disobedient at school</td>
<td>14.1</td>
<td>12.2</td>
<td>0.59</td>
<td>ns</td>
</tr>
<tr>
<td>6. Physically attacks people</td>
<td>12.5</td>
<td>2.5</td>
<td>23.60</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>7. Lying or cheating</td>
<td>11.5</td>
<td>10.0</td>
<td>0.36</td>
<td>ns</td>
</tr>
<tr>
<td>8. Steals outside home</td>
<td>10.4</td>
<td>16.1</td>
<td>5.23</td>
<td>&lt;.025</td>
</tr>
<tr>
<td>9. Can't concentrate</td>
<td>10.2</td>
<td>13.1</td>
<td>1.35</td>
<td>ns</td>
</tr>
<tr>
<td>10. Argues a lot</td>
<td>9.9</td>
<td>5.0</td>
<td>4.36</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>11. Demands attention</td>
<td>8.9</td>
<td>3.0</td>
<td>10.91</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>12. Can't sit still, restless</td>
<td>8.6</td>
<td>18.0</td>
<td>13.89</td>
<td>&lt;.001</td>
</tr>
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<td>21.1</td>
<td>5.97</td>
<td>&lt;.025</td>
</tr>
<tr>
<td>3. Somatic problems, headaches, etc.</td>
<td>6.3</td>
<td>19.2</td>
<td>26.36</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>4. Can't sit still, restless</td>
<td>8.6</td>
<td>18.0</td>
<td>13.89</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>5. Wet's bed</td>
<td>1.9</td>
<td>17.5</td>
<td>39.76</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>6. Steals at home</td>
<td>0.06</td>
<td>16.1</td>
<td>57.01</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>7. Steals outside home</td>
<td>10.4</td>
<td>16.1</td>
<td>5.23</td>
<td>&lt;.025</td>
</tr>
<tr>
<td>8. Withdrew</td>
<td>1.4</td>
<td>15.8</td>
<td>47.72</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>9. Can't concentrate</td>
<td>10.2</td>
<td>13.1</td>
<td>1.35</td>
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<td>0.36</td>
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</tbody>
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*Type of problem, as determined by factor analyses of the Child Behavior Checklist. U = loads exclusively or predominantly on the undercontrolled syndrome; O = loads exclusively or predominantly on the overcontrolled syndrome; N = not included in either under- or overcontrolled components.

References
