Assessment of Overcontrolled Hostility in Adolescence

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The validity of Megargee’s Overcontrolled Hostility (O-H) scale to adolescent violent behavior was evaluated. Seventy-two male Young Offenders and 22 high school boys were given the Minnesota Multiphasic Personality Inventory (MMPI). The O-H scale did not distinguish among extremely assaultive, moderately assaultive and nonassaultive criminal adolescents, and noncriminal adolescents. Adolescents fitting the clinical description of the overcontrolled assaultive type did not produce high O-H scale scores, nor did extremely assaultive adolescents differ in personality from moderately assaultive and nonassaultive criminal adolescents as assessed by the MMPI. During adolescence the inhibitions necessary to produce the constellation of overcontrolled hostility may not yet be fully developed, and extremely assaultive acts in adolescence may result from motivations different from those of adults.

Megargee (1965, 1966) presented the idea that extremely violent behavior can result from a tendency to chronically overcontrol aggressive impulses. Such individuals appear to keep tight constraints on their hostile emotions and aggressive behaviors until they “explode” intermittently in fits of violent behavior of great intensity. Megargee, Cook, and Mendelsohn (1967) developed a 31-item scale derived from questions on the Minnesota Multiphasic Personality Inventory (MMPI) to measure a personality trait he called overcontrolled hostility (O-H). The O-H scale has been validated by a number of studies (Arnold, Quinsey, & Velmans, 1977; Blackburn, 1972; Deiker, 1974; Lane & Kling, 1979; Lane & Spruill, 1980; Megargee, Cook, & Mendelsohn, 1967; Quinsey, Maguire, & Varney, 1983; Rice, Arnold, & Tate, 1983; White, 1975; White, McAdoo, & Megargee, 1973), although not by all (Fisher, 1970; Hoppe & Singer, 1976; Mallory & Walker, 1972). These three latter studies, however, used abstracted O-H scales administered outside the context of the full MMPI, a procedure that may invalidate the results (Greene, 1980). As Greene (1980) reported, high scorers on the O-H scale are described as displaying excessive control of their hostile impulses and as being socially alienated. They are reluctant to admit to any form of psychological symptoms, even though they are sometimes diagnosed as being psychotic. They are seen as being rigid and not displaying anxiety overtly (p. 197).

All of these studies, however, were conducted using adult samples. Information on the validity of the O-H scale in adolescence is not available. Archer (1987) pointed out that interpretative information for the MMPI drawn from adult samples is not necessarily directly applicable to adolescents. Indeed, 3 of the 31 O-H scale items (141, 229, 475) are unstable in the direction of item endorsement from Grade 9 to Grade 12, and an additional item (78) is endorsed far less frequently in the overcontrolled hostility direction by adolescents than by adults (Hathaway & Monachei, 1963). Clinicians working with violent adolescents are forced either to assume that the adult manifestations of overcontrolled hostility are applicable to adolescents or to refrain from considering this potentially useful conceptualization of violent behavior in adolescence.

The purpose of this study was to gather evidence on the validity of the O-H scale as it applies to violent behavior in adolescence by replicating the original validation study of Megargee et al. (1967) on an adolescent sample. It was expected that, as with adults, extremely assaultive adolescents, moderately assaultive and nonassaultive criminal adolescents, and noncriminal control adolescents would differ in their responses to the O-H scale, with the extremely assaultive group producing a higher average score and greater variability than the other two groups and that adolescent O-H scores would be positively correlated with MMPI scales L, K, Hypochondriasis (Hs), Psychopathic Deviance (Pd), Masculinity and Femininity (Mf), Psychasthenia (Pt), Schizophrenia (Sc), and Hypomania (Ma).

Method

Subjects

Cases were drawn from two populations: (a) inpatient Young Offenders and (b) Grades 10 and 11 high school students. All subjects were male, and none were Black.

The first group was drawn from a 19-bed inpatient Young Offenders Treatment and Assessment Unit at Alberta Hospital Edmonton, Forensic Services Unit, a 140-bed psychiatric inpatient facility. By law, their length of stay was between 8 and 30 days, with the mode being 21 days. Over an 8-month period, there were 104 admissions. Seven additional extremely assaultive adolescents were drawn from admission assess-
ments conducted after this period, until a sample of 20 was obtained for the extremely assaultive group. Of these, 9 were female, 10 were illiterate, 10 refused to cooperate with the assessment, and 10 completed MMPIs that were deemed to be inaccurate (see the Procedure section). These subjects were not included in the study, and therefore the sample consisted of 72 Young Offender subjects. All had at least a Grade 6 reading level as measured by the Reading subtest of the Wide Range Achievement Test-Revised, Level 2 (Jastak & Wilkinson, 1984). The average age of this group was 15.6 years (SD = 1.4; range: 12–18 years); the average socioeconomic status score was 3.6 (range: 1–5), based on the education and occupation of the breadwinner of their family; Hollingshead & Redlich, 1958; and the average IQ score was 100.3 (SD = 13.7; range: 76–146).

The control group was drawn from two 10th-grade-level psychology classes and two 10th-grade-level law classes at an Edmonton Catholic high school. A total of 95 students were enrolled in the four classes. Sixty-one agreed to participate in the study as part of a class project and obtained parental consent. Thirty-four were female. Five of the male subjects’ MMPIs were incomplete. Twenty-two control subjects were therefore included in this study. The average age of this group was 16.5 years (SD = 0.7; range: 16–18 years); the average socioeconomic score was 3.0 (range: 1–5); and the average IQ score was 94.1 (SD = 9.4; range: 78–108). None of the average scores on the MMPI validity and clinical scales fell outside of a T score of 45 to 65, which is within the normal range (Archer, 1987).

A total sample of 94 subjects was therefore included in this study. Subjects were assigned to three groups on the basis of their official criminal record:

1. Extremely assaultive adolescents (n = 20). This group included those who had committed any of the following crimes: murder, attempted murder, manslaughter, sexual assault with a weapon or causing bodily harm, assault with a weapon or causing bodily harm, aggravated sexual assault, aggravated assault, and robbery with violence.

2. Moderately assaultive and nonassaultive adolescents (n = 52). This group included those who had committed any crimes other than those listed above.

3. Noncriminal control subjects (n = 22).

Materials

The following measures were administered to the subjects:

1. The Young Offender subjects were given the Wechsler Adult Intelligence Scale—Revised (WAIS-R; Wechsler, 1981) or the Wechsler Intelligence Scale for Children—Revised (Wechsler, 1974), as appropriate for their age and test experience.

2. The control subjects were given the Vocabulary subtest of the Multidimensional Aptitude Battery (MAB; Jackson, 1984), a multiple-choice format test of intellectual abilities. MAB Vocabulary substests scores correlate .75 with MAB full scale IQ scores and .89 with WAIS-R Vocabulary subtest scores (Jackson, 1984).

3. All subjects were given the Minnesota Multiphasic Personality Inventory, Form R (Hathaway & McKinley, 1951), including scoring for the 3 validity scales, the 10 clinical scales, and the O-H scale (Megargee, et al., 1967). The item list for the O-H scale was obtained from the article by Megargee et al. and transcribed to the Form R item list.

Procedure

All Young Offender subjects were assessed as part of the routine intake assessment of the unit following standard guidelines as outlined in the respective test manuals. All subjects were offered feedback on their test results, and all gave their informed consent for the release of their assessment results for research purposes.

All control subjects were assessed as a group in their psychology or law class during a 2-day period as a class project, following standard guidelines as outlined in the respective test manuals. The parents of all the control subjects gave informed consent for the release of their test scores for research purposes, and class participation was voluntary. I gave a presentation of the general purpose and findings of the research project to the class 2 weeks after data collection.

Completed MMPIs were scored by hand and converted to non-K-correction T scores, as prescribed by Hathaway and McKinley (1951), using adolescent norms (Dahlstrom, Welsh, & Dahlstrom, 1972). K-corrected MMPIs have been found to produce misleading results with adolescents (Archer, 1987). Published adolescent norms are not yet available for the O-H scale, and therefore raw scores were used.

All MMPI profiles were assessed for validity by first using the test-retest (TR) index (Beuchley & Ball, 1952) and the Carelessness scale (Greene, 1978) to evaluate the consistency of item endorsement. If either of them exceeded a raw score of 4, the case was excluded from the study (Greene, 1980). Profiles were then evaluated for accuracy of item endorsement using the F scale and the number of items not endorsed. If the F scale exceeded a T score of 100, the case was excluded (Archer, 1984). If 3 or more items were not endorsed, the case was excluded (Greene, 1980).

Seven cases from the Young Offenders group were excluded because of Carelessness scale and TR index scores exceeding 4, and three cases were excluded because of F-scale scores in excess of 100.

Results

The potential covariates of age, IQ, and socioeconomic status were not found to significantly account for adjustment of O-H scores and were therefore not included in the statistical analyses.

A one-way, between-groups analysis of variance was performed for O-H scale raw scores on assaultiveness. Cells were weighted by their sample sizes in order to deal with unequal cell sample sizes. O-H scale scores did not vary with assaultiveness, F(2, 91) = 0.18, p > .05, as is evident in Table 1, where means, standard deviations, and ranges are displayed.

The hypothesis that Megargee’s O-H scale (Megargee et al., 1967) of the MMPI distinguishes between extremely assaultive adolescents, moderately assaultive and nonassaultive criminal adolescents, and control subjects is not supported.

To help in determining just what the O-H scale is assessing in adolescence, O-H scale raw scores were correlated with the 13 MMPI validity and clinical scales. Only the L and K scales were found to be statistically significantly correlated with O-H scores, r(93) = .36, p < .01, and r(93) = .26, p < .01, respectively. Elevated L-scale and K-scale scores are associated among adolescent respondents with a tendency toward conformity, de-
fensiveness, and denial of psychological symptoms (Archer, 1987).

Considering that the O-H scale does not appear to apply to extremely assaultive young men as a group, their case records were examined to determine whether some of them fit the clinical description of the overcontrolled assaultive type—a quiet, mild-mannered person with no history of violence who has committed an extremely violent act—and whether they endorse high O-H scale scores. Of the 20 extremely assaultive adolescents, 5 appeared to meet the clinical criteria. They did not, however, endorse high O-H scale scores. Three had O-H raw scores of 11 (adult T score = 45), 1 had a raw score of 10 (adult T score = 42), and 1 had a raw score of 8 (adult T score = 35). Interestingly, 4 of these 5 young men had committed the extremely assaultive act against a family member (3 against mothers and 1 against a sister).

To examine whether these three groups (extremely assaultive adolescents, moderately assaultive and nonassaultive criminal adolescents, and control subjects) differed in personality dimensions other than overcontrolled hostility, a one-way, between-groups multivariate analysis of variance (MANOVA) was performed for the 13 MMPI validity and clinical scales on assaultiveness. Cells were weighted by their sample sizes to deal with cell samples of unequal size. An experimentwise error rate of 5% was achieved by apportioning an alpha of .4% for each of the dependent variables.

With the use of Wilk’s criterion, the combined dependent variables were significantly affected by assaultiveness, \( F(2, 91) = 4.64, p < .01 \). These results are summarized in Table 2.

A further analysis was done to compare the means of pairs of the three groups on each of the eight variables found to be statistically significantly related to assaultiveness in the MANOVA by performing a series of \( t \) tests (see Table 2). An experimentwise error rate of 5% was achieved by apportioning an alpha of .6% for each of the dependent variables. These analyses revealed that, as a group, the extremely assaultive young men did not differ from the moderately assaultive young men on these personality measures. The extremely assaultive and moderately assaultive young men did generally differ from control subjects, but considering that these two groups are derived from different populations (offenders vs. nonoffenders), the differences probably represent general antisocial behavior and not assaultiveness.

### Discussion

The hypothesis that Megargee’s O-H scale (Megargee et al., 1967) validly identifies overcontrolled young men is not supported. Adolescents, more often than adults, endorse a great number of pathological symptoms that suggest serious psychopathology and deviant experiences, greater impulsivity and rebelliousness, and a greater sense of social isolation and alienation (Archer, 1987). Considering this general tendency, it may be that during adolescence the psychological inhibitions necessary to produce the constellation of overcontrolled hostility are not yet fully developed. The present findings support the conclusion that the precursors to these inhibitions may be operating in male adolescents in the form of a reluctance to admit to psychological symptoms but that the associated features of excessive control of hostile impulses (social alienation, interpersonal rigidity, and freedom from anxiety) are not present and that extremely assaultive acts in adolescence are the product of motivations different from those of adults.

These findings lend further support to the view expressed by Archer (1987) that adolescence is a developmental period marked by substantial turbulence in which numerous MMPI items are responded to in a manner significantly different from that of adults. Although some MMPI scales, such as the MacAndrew Alcoholism Scale, can be interpreted in a similar way for both adolescents and adults (Wolfson & Erbaugh, 1984), this
is not true for other MMPI scales (Hathaway & Monachesi, 1963). The O-H scale appears to belong to this other group.

The limitations of this study must be noted. The samples of extremely assaultive and control adolescents are small (20 and 22, respectively), decreasing the power of the statistical procedures. Megargee et al.'s (1967) original validation study, after which this study was patterned, used equally small samples (one using 14 extremely assaultive adult prisoners and one using 21 overcontrolled adult prisoners), however, and the null hypothesis was rejected. Also, from a clinical point of view, the differences among the O-H scores produced by overcontrolled assaultive subjects, undercontrolled assaultive subjects, and normal subjects must be great enough to allow them to be readily differentiated on a single-case basis. Increasing the sample size will decrease the variability in the sampling distributions and enhance the statistical power of the research design, but this would only allow a rejection of the null hypothesis for smaller differences in the means of the three groups. Clinicians would not be any further ahead in their ability to apply the overcontrolled hostility typology to adolescents.

It is also possible that a bias was present in that the Young Offender system may send overcontrolled assaultive offenders to a different facility. This possibility is difficult to address. It seems likely that an extremely assaultive act in an otherwise nondelinquent adolescent would raise questions in court as to whether the young person should be considered for some form of psychotherapeutic or psychopharmacological treatment and thus be remanded to the Unit for assessment. In any case, replication studies should be done.

Future research might investigate whether overcontrolled hostility begins to appear at a certain age by conducting cross-sectional or longitudinal studies and by examining the criminal histories of adult overcontrolled hostility offenders to find out if they committed extremely assaultive acts as adolescents or only as adults. Also, considering that adolescent personality is in such a state of flux, the constellation of overcontrolled hostility may not be as stable in adolescents as it is in adults. A prospective study, therefore, in which adolescents who score high on the O-H scale are followed over time, may yield some predictive validity.

References


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