



Adolescent Coping Typologies and Adult Substance Use and Abuse

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Abstract

Individuals are likely to use more than one type of coping when confronted with a problem. Therefore, a central goal of this study was to develop coping typologies. An additional goal was to examine whether coping typologies during adolescence predict substance use and abuse during early adulthood. Paternal substance dependence and gender also were examined. The sample included 249 15-19 year-old adolescents and their fathers. All of the adolescents were followed-up five years later when they were in early adulthood. K-means cluster analyses revealed four coping clusters. Cluster #1 individuals primarily used religion to cope. Cluster #2 individuals tended to use social support and humor to cope. Cluster #3 individuals also used humor to cope, but were most likely to use denial, behavioral disengagement, and substance use to cope. Cluster #4 individuals employed the fewest coping strategies. MANOVA results indicated that Cluster #2 individuals drank the most frequently. Cluster #3 individuals had the highest average amount of alcohol consumed per drinking occasion and drank the largest amount on a given occasion. Cluster #1 individuals drank the least. Results from this study underscore the usefulness of examining coping *typologies* in relation to both substance use and substance abuse.

The RISK Project

- A longitudinal study designed to follow children of alcohol and drug dependent fathers as they progress from adolescence into adulthood
- The RISK project began in 1993 and is currently ongoing (the present study is based on Time 1 data collected between 1993-1998 and Time 2 data collected between 1998-2003)
- Adolescents are recruited directly through the community (e.g., YMCA/YWCA, high schools) and indirectly through their parents (e.g., newspaper advertisements, presentations at alcohol/drug treatment programs)

Sample

- 249 adolescent girls and boys (62% Caucasian; 60% girls) and their fathers
- Age range = 15-19 years old; Mean age = 16.70 (SD=1.36)
- Mean household income = 4.69 (SD=2.42) on a scale ranging from 1=0-\$9,999/year to 9=\$150,000/year or more (equivalent of about \$40,000/year)
- Working class families from an inner-city
- 56% of fathers diagnosed with a substance abuse disorder

Measures

Paternal Substance Dependence

The Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA) was administered to fathers to obtain lifetime diagnoses of alcohol and drug dependence. The SSAGA is a diagnostic psychiatric interview with good psychometric properties (Hesselbrock, Easton, Bucholz, Schuckit, & Hesselbrock, 1999). Based on SSAGA diagnoses, 27% of the fathers met the criteria for alcohol dependence only, 29% met the criteria for alcohol dependence and drug dependence, and 44% of the fathers did not meet the criteria for either.

Coping

Youth completed the 60-item *COPE* (Carver, Scheier, & Weintraub, 1989). This measure has been shown to be a psychometrically sound measure of coping (Carver et al., 1989). The scales that were included in the present study and their respective Cronbach alpha coefficients were Social Support – Instrumental (.70), Social Support – Emotional (.82), Planning (.72), Restraint (.60), Growth (.71), Acceptance (.63), Religion (.89), Venting Emotions (.66), Denial (.75), Behavioral Disengagement (.72), Alcohol/Drug Use (.84), and Humor (.84).

Youth Substance Use

Youth were asked how much they usually drank, and how frequently they drank (beer, wine, and hard liquor). The usual amount variable was skewed and therefore was linearly transformed.

Youth Substance Abuse

Youth were asked how often (in the past six months) they drank enough to “get drunk” (enough to cause loss of control of physical abilities, unsteadiness, aggressiveness or nausea) and to “get high” (enough to cause drowsiness, lightheadedness, etc.). These variables were quite skewed. Therefore, they were linearly transformed. A composite score was then created by summing the variables. Youth also were asked to report the largest amount of alcohol (beer, wine, and hard liquor) they had consumed in the past six months. This variable also was linearly transformed. Finally, the *25-item Michigan Alcoholism Screening Test* (MAST; Selzer, 1971) was used to assess youth substance abuse. This 25-item measure has been found to be a psychometrically sound measure of substance abuse (Selzer, 1971; Skinner, 1979).

*Paternal substance dependence and coping were assessed at Time 1. Substance use and abuse were assessed at Time 2.

Results

Coping Typologies

K-means cluster analyses were conducted to group the participants with respect to coping strategies. The most parsimonious solution yielded four clusters (see Table 1). Cluster #1 individuals ($n=62$) primarily used religion to cope. Cluster #2 individuals ($n=82$) tended to use social support and humor to cope. Cluster #3 individuals ($n=46$) also used humor to cope. In addition, they were most likely to use denial, behavioral disengagement, and substance use to cope. Finally, Cluster #4 individuals ($n=50$) employed the fewest coping strategies. Although similar to those in Cluster #3, they tended to use denial, behavioral disengagement, and substance use; albeit to a lesser extent.

Results

The Relationship Between Coping Typologies and Substance Use

A Multivariate Analysis of Variance (MANOVA) model was conducted to examine whether substance use differed by cluster membership. The dependent variables were frequency of drinking, and the usual amount of alcohol consumed. The factors were paternal substance dependence group, gender, and coping cluster. The overall model was significant ($F(2, 187)=274.43, p<.001$). As shown in Table 2, the multivariate test for gender also was significant ($F(2, 187)=7.71, p<.01$), indicating that males were more likely to drink more frequently than females. In addition, the multivariate test for coping cluster was significant ($F(6, 374)=2.79, p<.05$). Post-hoc tests revealed that individuals in Cluster #1 drank significantly less frequently than those in Cluster #2 and Cluster #4. Cluster #1 individuals also consumed significantly less alcohol per drinking occasion than those in all other clusters.

The Relationship Between Coping Typologies and Substance Abuse

Another MANOVA model was conducted to examine whether substance abuse differed by cluster membership. The dependent variables in this model were the largest amount of alcohol consumed, frequency of drinking to get drunk/high, and the MAST score. The overall model was significant ($F(3, 186)=164.05, p<.001$). In addition, the multivariate test for coping cluster was significant ($F(9, 453)=2.70, p<.01$). Examination of post-hoc tests indicated that Cluster #2, 3, and 4 individuals reported drinking significantly larger amounts of alcohol than those in Cluster #1.

Table 2. MANOVA Models Predicting Substance Use from Paternal Substance Dependence, Gender, and Coping Cluster Membership

Predictors	Substance Use	Substance Abuse
	F/df	F/df
Paternal Substance Dependence	1.00/4,374	.94/6,372
Gender	7.71/2,187**	2.62/3,186
Coping Cluster Membership	2.79/6,374*	2.70/9,453**
Paternal Substance Dependence by Gender	1.19/4,374	.74/6,372
Paternal Substance Dependence by Coping Cluster Membership	.85/12,374	.73/18,527
Gender by Coping Cluster Membership	.44/6,374	.49/9,453
Paternal Substance Dependence by Gender by Coping Cluster Membership	.76/12,374	.73/18,527

* $p<.05$; ** $p<.01$

Conclusions

The aims of this study were to develop adolescent coping typologies and to examine whether they were related to adult substance use and abuse. In general, adolescents reported using multiple coping strategies to deal with a problem. The coping typologies included participants who employed few coping strategies, as well as participants who used religion, social support and humor, humor in addition to denial and behavioral disengagement, and substance use as their coping techniques. The coping styles employed by adolescents were found to be associated with the amount and frequency with which they consumed alcohol during early adulthood. Overall, Cluster #1 individuals, those who primarily used religion to cope, were found to drink less frequently and to consume relatively less alcohol. Gender differences also were observed, with males drinking more frequently than females. In sum, results from this study suggest that adolescents who primarily use religion to cope may be somewhat protected from the development of substance abuse problems during early adulthood.

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Table 1. Cluster Centers of the Coping Measure

Coping Scale	Cluster 1 ($n=62$)			
Planning	11.98	11.84	11.39	8.98
Restraint	10.44	9.77	10.76	7.86
Social Support-Instrumental	12.03	12.49	11.11	8.12
Social Support-Emotional	11.85	12.37	10.72	7.52
Growth	12.50	12.52	11.43	9.12
Acceptance	10.81	11.87	10.67	9.60
Religion	13.10	6.38	11.46	6.74
Venting Emotions	7.76	8.50	8.59	6.54
Denial	6.87	6.30	10.72	7.00
Behavioral Disengagement	6.45	6.63	10.67	7.38
Alcohol/Drug Use	3.50	3.88	6.65	4.82
Humor	7.34	10.61	11.65	7.46