



Peer group self-identification among alternative high school youth: A predictor of their psychosocial functioning five years later¹

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ABSTRACT. Adolescents' self-identified peer group affiliation consistently has been found to be associated with their health risk behaviors such as involvement in substance use and violence. However, no prospective studies have examined the relations of peer group self-identification in adolescence with problem behaviors in young adulthood among high-risk youth. This *ex post facto* study examined the association between self-reported peer group affiliation during high school and psychosocial functioning five years later among 532 pretest continuation (alternative) high school students. Students who had self-identified with high-risk peer groups while in continuation high school were more likely than their peers to report involvement in drug use and violence during young adulthood, and they were significantly less likely to have graduated from high school and found stable employment. However, many youth that were at high risk for drug use and violence in young adulthood did not identify with a specific, discrete group (i.e., had been classified as "others" in high school). These results suggest that the perceived influence of peer groups during adolescence can continue into early adulthood and perhaps throughout the life course. Additional work on classification of self-identified peer groups is needed.

KEYWORDS. Adolescence. Peer group self-identification. Substance use. Violence. *Ex post facto* study.

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RESUMEN. La afiliación autoidentificada de grupos paritarios en adolescentes ha sido asociada a conductas de riesgo de salud, tal como el abuso de sustancias y la violencia. Sin embargo, no existen estudios prospectivos que hayan investigado las relaciones de la autoidentificación de grupos paritarios en la adolescencia con las conductas problema en los primeros años de la edad adulta entre jóvenes de alto riesgo. Este estudio *ex post facto* investigó en 532 estudiantes de instituto la asociación entre la afiliación auto-informada de grupos paritarios durante la enseñanza secundaria y el funcionamiento psicosocial a los cinco años. Entre los estudiantes que se habían auto-identificado con grupos paritarios de alto riesgo durante la edad escolar era más probable que se informara sobre su participación en el uso de drogas y violencia durante la edad adulta y era significativamente menos probable el haberse graduado o encontrado un empleo fijo. Sin embargo, muchos jóvenes con un alto riesgo en uso de drogas y violencia al principio de la edad adulta no se identificaron con un grupo específico y distinto. Estos resultados sugieren que la influencia percibida de los grupos paritarios durante la adolescencia puede continuar en los primeros años de la edad adulta y quizás a lo largo del curso de la vida. Hacen falta investigaciones adicionales sobre la clasificación de grupos paritarios autoidentificados.

PALABRAS CLAVE. Adolescencia. Grupos paritarios autoidentificados. Uso de sustancias. Violencia. Estudio *ex post facto*.

RESUMO. Tem sido consistentemente encontrada uma associação entre a auto-identificação dos adolescentes ao seu grupo de pares e comportamentos de risco para a saúde, tais como o envolvimento no uso de substâncias e de violência. Contudo nenhum estudo prospectivo examinou entre os jovens de alto risco, as relações entre a auto-identificação ao grupo de pares na adolescência com problemas de comportamento no jovem adulto. Este estudo *ex post facto* analisou a associação entre a afiliação ao grupo de pares relatada durante a escola secundária e o funcionamento psicossocial durante os cinco anos seguintes em 532 estudantes da escola secundária que fizeram o pré teste. Os estudantes que se haviam identificado com grupos de pares de alto risco, enquanto continuaram na escola secundária, em comparação com os seus pares, relatavam maior probabilidade de envolvimento no uso de drogas e violência durante a idade de jovem adulto, e apresentavam significativamente menos probabilidade de finalizar a escola secundária e de conseguir um emprego. Contudo, muitos jovens que apresentavam alto risco de consumir drogas e usar a violência na idade de jovem adulto não se identificaram com um grupo específico (i.e. foram classificados como “outros” na escola secundária). Estes resultados sugerem que a influência percebida do grupo de pares durante a adolescência pode continuar na idade do jovem adulto e talvez através da vida. São necessários mais estudos sobre a classificação da auto-identificação ao grupo de pares.

PALAVRAS CHAVE. Adolescência. Grupo de pares. Auto-identificação. Uso de substâncias. Violência. Estudo *Ex post facto*.

Introduction

Adolescence is a period of identity formation and the establishment of the attitudes, skills, and behaviors that will affect social, physical, and economic outcomes throughout

the life course (Erickson, 1968; Marcia, 1980). Many influences in the social and physical environment shape adolescents' identities, including the family, the school system, the neighborhood, the media, and the peer group. The influence of the peer group is particularly strong during adolescence. The adolescent peer group plays a major role in the development of its members' self-identities (Brown and Lohr, 1987; Newman and Newman, 1976). Adolescents form their attitudes, opinions, priorities, and goals in conjunction with their peers (Flay, D'Avernas, Best, Kersall, and Ryan 1983; Hansen, Graham, Sobel, Shelton, Flay, and Johnson, 1987; Harris, 1995; Krosnick and Judd, 1982). Risky behaviors such as substance use, violence, and delinquency also develop in the context of peer groups and are maintained through reinforcement from peers (Alexander, Piazza, Mekos, and Valente, 2001; Bewley, Bland, and Harris, 1974; Conrad, Flay, and Hill, 1992; Friedman, Lichtenstein, and Biglan, 1985; Levanthal and Cleary, 1980; Tyas and Pederson, 1998; Unger *et al.*, 2002).

Deviant and Nondeviant Adolescent Groups

Adolescent peer groups vary in several characteristics such as their involvement in school and school-related activities, their popularity with their peers, and their primary interests and goals. Of particular interest in health behavior work, these youth differ in their levels of deviance (Baumrind, 1985). Nondeviant peer groups encourage and reward the values of friendliness, cooperativeness with peers and adults, and concern for others. Adolescents who lack academic or social skills and/or parental monitoring are likely to join deviant groups, which teach and reward antisocial behaviors and attitudes (Patterson and Dishion, 1985). Deviant groups condone a variety of problem behaviors including drinking, illicit drug use, sexual experience, shoplifting, vandalism, truancy, fighting, and parental defiance (Donovan and Jessor, 1985). Although there are many differences across various deviant peer groups, there also are many similarities. For example, the "punk rocker" group, though different in specific clothing and music preferences from other deviant groups, is characterized by similarly high levels of family conflict and impulsiveness (Gold, 1987).

Adolescent Group Typologies

There are several ways that groups might be delineated, including researcher ethnographic judgments or reports from other adults, sociometric analysis, and cluster analytic inferences. Another strategy that has been used in this literature is called "group self-identification." In this protocol, youth are instructed to indicate the name of the group that they feel they are most a part of at school or in another context. Item responses are either fill-in-the blank type or include specific names derived from previous work. Groups cluster into general categories based on ratings that reduce specific group names into categories. This strategy is unique in that it indicates an individual's perceptions regarding what group he or she belongs to, or identifies with. It does not investigate the individual's social interactions directly. As such, this measure is relatively easy to administer (compared to sociometric techniques) and examines how an individual interprets a group's effects on him or herself. Numerous researchers have proposed general typologies of adolescent peer groups based on a group self-identification protocol (e.g., Brown and

Lohr, 1987; Brown, Mounts, Lamborn, and Steinberg, 1993; Brown and Trujillo, 1985; Clark, 1962; Cohen, 1979; Dolcini and Adler, 1994; Dubow and Cappas, 1988; Eckert, 1983; Hartup, 1983; Kipke, Unger, O'Connor, Palmer, and LaFrance, 1997; Larkin, 1979; Mosbach and Levanthal, 1988; Poveda and Crim, 1975; Prinstein and LaGreca, 2002; Sussman, Dent, and McCuller, 2000; Sussman *et al.*, 1988; Sussman, Simon, Dent, and Stacy, 1999; Youniss, McLellan, and Straus, 1994). Adolescents typically identify their peer groups according to their preferred clothing styles, music, activities (including drug use), or hangout locations. Although those identifying characteristics vary across time and location, peer groups can be described consistently by a small number of general categories. Across studies, the following general groups have emerged repeatedly. *Hotshots/populars/brains* are adolescents who tend to be popular with their peers and highly involved in sports and other school activities, and tend to place an importance on academics. *Regulars* are adolescents who are average in popularity and school involvement, participating to some extent in school clubs, activities, and positions such as hall monitor in addition to pro-social out-of-school activities (e.g., sports leagues). *High-risk youth* are adolescents who are not involved in school but are involved in risky activities such as attendance at rock concerts or raves, substance use and delinquency. Finally *others* are adolescents whose self-identification is too general to be categorized (e.g., "girls," "9th-graders," "my friends", or by a broad ethnic label, such as "Asian").

Psychological profiles and risk behaviors differ across these broad groups. In general, self-identified high-risk youth are the most likely to perform poorly in school, to use alcohol, tobacco, and other drugs, to be involved in violence, and to have high scores on measures of impulsivity, sensation-seeking, and rebelliousness (Barber, Eccles, and Stone, 2001; Eccles and Barber, 1999; Kipke *et al.*, 1997; La Greca, Prinstein, and Fetter, 2001; Mosbach and Leventhal, 1988; Sussman *et al.*, 2000). Many studies have assessed the cross-sectional associations between peer group self-identification and outcomes such as risk behaviors and psychosocial adjustment during adolescence. We know of only four studies that have assessed those associations longitudinally. In a prospective study of regular (traditional) high school youth (Barber *et al.*, 2001), adolescents who self-identified with a high-risk peer group were more likely to use alcohol and other drugs, to be depressed, and to have low self-esteem, and were less likely to have graduated from college, at age 24. Three one-year prospective studies (Sussman, Dent, McAdams, Stacy, Burton, and Flay, 1994; Sussman *et al.*, 2000; Sussman *et al.*, 1999) have found that high-risk peer group self-identification early in continuation (alternative) high school is associated with an increased risk of problem behaviors such as drug use and violence later in high school.

Because adolescents' peer group self-identification is associated with their risk of problem behaviors one or more years later, it is possible that peer group self-identification also affects their decisions and psychosocial functioning during the transition to young adulthood. Important changes occur in nearly every domain of life during this period (Bachman, Wadsworth, O'Malley, Jhonston, and Schulenberg, 1997), simultaneously creating disruption as well as opportunities for growth. These changes include independent living, establishment of lasting relationships and a family, and commitment to a career (Bachman *et al.*, 1997; Brook, Richter, Whiteman, and Cohen, 1999; Levinson, Darrow,

Klein, Levinson, and McKee, 1978). Some adolescents transition out of problem behaviors such as drug use as they take on adult roles, whereas others who continue involvement with deviant subcultures might be less likely to transition into adult roles (Kandel and Logan, 1984). Adolescents who take on adult roles prematurely might show more independence initially but less stability during young adulthood (Newcomb and Bentler, 1988). It is likely that adolescents' peer group self-identification affects the choices they make as they transition, or fail to transition successfully, into adult roles, which in turn could affect their involvement in problem behaviors and their subsequent adjustment in adulthood. Little is known about the long-term effects of peer group self-identification among high-risk adolescents. Cross-sectional studies of high-risk adolescents, including students attending alternative / continuation high schools and homeless / street youth, have found that even within those higher-risk samples, those students who self-identified with high-risk peer groups were more likely to be involved in substance use and violence relative to their peers who shared similar social contexts but did not identify with high-risk peer groups (Sussman *et al.*, 1999).

Research is needed to determine whether peer group self-identification during adolescence among high-risk youth affects their health, social, and economic outcomes in adulthood. This study examined the association between peer group self-identification during high school and psychosocial functioning five years later among a sample of continuation high school students (students whose life circumstances prevent them from succeeding in traditional high schools).

The current *ex post facto* study (Montero and León, 2002) does follow the structure of the guidelines proposed by Bobenrieth (2002).

Method

Sample

The adolescents who participated in this study were continuation high school students in California who participated in Project TND, a substance use prevention project (Sussman, Dent, and Stacy, 2002). Continuation high schools are alternative public schools for students whose behavioral problems or life circumstances interfere with their success at traditional high schools. These schools consistently show a high prevalence of substance use and a paucity of prevention programs (Sussman, Dent, Burton, Stacy, and Flay, 1995a). A total of 21 school districts from a five-county region of Southern California participated in the study in 1995. Consent forms were sent home to the parents to sign; parents that did not respond with a written consent or refusal were contacted by telephone to obtain verbal consent or refusal. At baseline in 1995, approximately 3% of students or their parents refused to participate in the data collection. A total of 1551 consented subjects in 21 schools completed the self-report questionnaire at baseline. Of those baseline respondents, 1318 (85%) provided parental consent allowing the student to be resurveyed in the future.

Three forms of the questionnaire were used. Each form included a core set of questions at the beginning, followed by three modules of questions. The order of the

three modules was rotated across the three forms of the survey so that each module would appear at the end of the survey for approximately one-third of the students. In most cases, time constraints allowed each student to complete the first two modules but not the third. Therefore, the questionnaire rotation allowed us to obtain data on each variable from at least two-thirds of the students surveyed. Of the 1318 students who provided consent at baseline, 952 (72%) completed the peer group items used in this analysis.

The final wave of data collection was administered over a two-year period an average of five years after the baseline. Follow-up data were collected over a two-year period to allow repeated attempts to contact students. A total of 532 respondents (57% of the 932 who completed the peer group items at baseline) were successfully re-surveyed.

Assessment of Attrition Bias

To assess the potential sample bias introduced by attrition, a comparison was made of the current analytic sample ($n=532$) to the full baseline sample ($n=952$) on 19 measures. The measures included demographic variables (socioeconomic status, age, gender, percent living with both parents, percent white, Latino, and other ethnicity), drug use variables (30-day use of cigarettes, alcohol, marijuana, and hard drugs), violence-related measures (e.g., weapon carrying, violence perpetration), and depression. The comparisons used a series of single sample t-tests or calculation of an approximate confidence interval for proportions with large samples (Hays, 1973). One of the 19 tests showed statistically significant differences between the two samples. The follow-up sample was more likely to live with both parents at baseline than the full baseline sample (51% versus 45%; $p<.05$). Therefore, one may conclude that the current analytic sample approximates a random sub-sample of pretest subjects, which indicates good external validity for the primary results (Murray, Moskowitz, and Dent, 1996). A more detailed presentation of the tracking protocol and representativeness of the follow-up sample are presented elsewhere (McCuller, Sussman, Holiday, Craig, and Dent, 2002).

Data Collection Procedures

- *Baseline survey.* Students completed a paper-and-pencil survey in their classrooms. Trained data collectors proctored the survey administration, reminding the students that their participation was voluntary and that their responses were confidential. The questionnaire was composed of a core section at the front (behavioral and demographic information), followed by three sections that rotated on different forms of the questionnaire (knowledge, social, and personal sections). The three forms of the surveys were randomly distributed to students within classrooms.
- *Five-year follow-up survey.* At the five-year follow-up, subjects were surveyed by telephone using an interview format. An extensive tracking procedure was used to locate the original participants, including telephone calls, Internet searches, and searches of other available databases (McCuller *et al.*, 2002). Project staff (previously unknown to the student) contacted the subjects by telephone, read the questionnaire items to them, and recorded their responses on the survey form (McCuller *et al.*, 2002).

Measures

- Peer group self-identification. Participants were asked, "People often hang out in different groups at school. Circle the letter of the one group that you feel that you're most a part of" A list of 16 group names was provided, plus an open-ended "other, please specify" option. The response categories were collapsed, on the basis of Sussman *et al.* (1999), into four general group categories: high-risk youth (n=136), jocks-hotshots (n=30), regulars (n=152), and others (n=214). Specific high-risk group names included "gang members," "stoners," "burnouts," "druggies," "taggers," "rappers," and "heavy metalers/rockers." Specific jock-hotshot group names included "popular (socials, preppies)," "jocks (athletes)," and "brains." Specific regular group names included "regular group (average)," "skaters," "progressive (techno, new order)," "actors (drama, band, musician)," and "surfers (beach kids)." Specific other group names included "loners," "wanderers," "don't have a best friend," "goofies," "aggies," "farmers," "cowboys," ethnic groups, independents ("can't be labeled"), and students who selected multiple groups.
- Drug use. Drug use behavior items were adapted from previous self-report questionnaires (e.g., Graham, Flay, Johnson, Hansen, Grossman, and Sobel, 1984; Johnston, O'Malley, and Bachman, 1999; Stacy, Newcomb, and Bentler, 1991; Sussman *et al.*, 1995a). At pretest and follow-up, respondents were asked how many times in the last 30 days they had used cigarettes, alcohol, marijuana, cocaine, hallucinogens, stimulants, inhalants, and other drugs (e.g., ecstasy, depressants, PCP, mushrooms, steroids). Responses were coded on an 11-point scale ranging from "0" to "91-100+." Generally, the two-week test-retest reliability of these types of drug use and intention measures is good (r above .75; Graham *et al.*, 1984; Needle, Mcubbin, Lorence, and Hochhauser, 1983). Responses to the cigarettes, alcohol, and marijuana items were averaged to create a "soft drug" use index (Cronbach's $\alpha = .66$). Responses to the five other types of drugs were averaged to create a "hard drug" use index (Cronbach's $\alpha = .66$).
- Drug problem checklist. The drug problem checklist assessed 9 experiences related to drug and alcohol abuse during the previous 12 months. The checklist was developed for use in this study, based on consequences of adolescent drug use reported by Newcomb and Bentler (1988). Items included three legal consequences (a police warning or detainment, an arrest on a drug- or alcohol-related charge, and a conviction or probation on a drug- or alcohol-related charge), three items related to treatment (inpatient or outpatient treatment for chemical dependency, and treatment for a health problem related to drug or alcohol use), and three items regarding complaints about the subject's drug or alcohol use (from family, friends, and neighbors). Subjects indicated whether or not they had experienced each item on the checklist, and they were given a score of '1' if they had experienced any versus a score of '0' if they had experienced none.
- Drug consequence scale. Personal consequences of drug use were assessed with a measure that includes 21 items. This measure is an expanded version of the

self-reported Personal Consequences Scale of the Personal Experience Inventory (PEI) (Winters, Stinchfield, and Henly, 1993). Eleven items comprise the Personal Consequences subscale of the PEI. Subjects were asked how often they were involved in 11 drug-use related circumstances during the past 12 months (e.g., had an accident or been injured due to using alcohol or drugs; gotten into a fight or tried to hurt someone while using alcohol or drugs), using four-point response scales (never, once or twice, sometimes, or often). The Personal Consequences subscale provides good discriminant validity between interview-derived diagnostic groups. It may be the best self-report measure available to assess adolescent and young adult substance abuse disorder because of its length (only 11 items), its ability to tap content that is more than just drug use per se, and its relatively high prediction of involvement with drug treatment. Ten additional items were included to increase coverage of DSM-IV substance abuse or substance dependence diagnostic criteria pertaining to tolerance and withdrawal. Using the same four-point response scales, subjects were asked how often they had experienced 10 dependence-related consequences (e.g. felt urges to use drugs or alcohol when they ran out; drank alcohol or used drugs in larger amounts than they intended) during the past 12 months. For all of the items on the expanded personal consequences scale, if the subject responded "sometimes" or "often," the item was coded as endorsed. In this study, a composite index of personal consequences was created, averaging responses to the 21 items (Cronbach's $\alpha=.90$).

- Drug-related driving. This measure was assessed with a three-item scale: "In the last 12 months, how many times have you driven a car under the influence of alcohol?" "In the last 12 months, how many times have you driven a car under the influence of marijuana or other drugs?" and "In the last 12 months, how many times have you been a passenger in a car with the driver under the influence of alcohol, marijuana, or other drugs?" Responses were rated on a four-point scale ranging from "never" to "often (10 or more)." The Cronbach's α of the scale was .69.
- Young adult life circumstances. Respondents were asked whether they had graduated from high school, were married or engaged, were parents, owned a home, liked their living situation, were currently employed, and/or received financial aid. These items are typical of those used by the Monitoring the Future research group (Bachman *et al.*, 1997).
- Violence. Violence perpetration was assessed with an index adapted from the 1981 Monitoring the Future survey – Form 2 (Jensen and Brownfield, 1986). The index consisted of the mean response of four 6-point items: "In the last 12 months, how many times have you..." "...used a weapon like a knife, gun, or club to injure someone?" "...used a weapon like a knife, gun, or club to threaten a person?" "...slapped, punched, kicked, or beaten up someone?" or "damaged or stolen someone else's property on purpose?" Responses were rated on a 6-point scale ranging from "never" to "5 or more." The Cronbach's α was .82. Violence victimization during the past 12 months and fear of victimization over

the next 12 months were indexes (alphas .77 and .81, respectively) very similar in construction to the violence index.

- Depression. The most widely used scale for determining adolescent depressive symptomatology is the Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977; 20-items). Although this scale was originally developed for use with adult populations, others have indicated that it is a valid and reliable measure in assessing depressive symptomatology among adolescents (e.g., Galaif, Chou, Sussman, and Dent, 1998; coefficient alpha=.84). Subjects are asked how often they have felt or behaved in certain ways during the past week. Each item was rated on four-point scales ranging from “rarely or none of the time (less than 1 day)” to “most or all of the time (5-7 days).” Examples of these 20 items included “I felt depressed,” “I felt lonely,” and “I felt sad.”
- Demographics. Three demographic measures were examined: gender, ethnicity, and socioeconomic status (SES). Ethnicity was coded into one binary category, White versus all others. An SES index consisted of the mean response across four items; father’s (or stepfather’s) and mother’s (or stepmother’s) occupational and educational levels (based on categories derived from Hollingshead and Redlich, 1958; coefficient alpha=.62).

Data Analysis

Chi-square and ANOVA models were used to compare the outcome measures across the four peer groups. Chi-square tests were used for categorical outcome measures and ANOVA models were used for continuous outcome measures. In the chi-square analyses, raw cell values are compared. In the ANOVA models, post hoc Least Significant Difference (LSD) tests were used to determine the significance of the between-group comparisons. This analysis was repeated comparing the high-risk students with all other students.

Results

Description of the Sample

The majority (57%) was male. Subjects ranged in age from 19 to 24 years, with a mean age of 22 (SD=.8). Half of the subjects were Latino (50%), followed by 31% white, 6% African American, 5% Asian American, and 9% other ethnicity. A total of 69% of the sample reported having completed high school. The majority (74%) was currently employed. In terms of marital status, 69% were single, 28% were married or engaged, and 3% were divorced or separated. A total of 41% had at least one child. More than one-third (42%) was currently living with one or more parents or adult relatives. The percentage of subjects who had used at least one soft drug in the past 30 days was 80% at 5-year follow-up. The 30-day prevalence of cigarette smoking and alcohol use were 64% and 70%, respectively. The 30-day prevalence of marijuana use and any hard drug use was 29%, and 13%, respectively. At the 5-year follow-up, 47% of the subjects reported having experienced in the past year at least one of the 21

alcohol- and drug-related consequences assessed in the expanded personal consequences scale, and 15% reported experiencing at least one of the 9 problems included in the drug problem checklist. Most of the respondents (79%) reported that they had driven while drunk or under the influence of drugs, or had ridden in a car when the driver was drunk or under the influence of drugs, in the past year.

Group Self-Identification Outcomes

Table 1 shows the variation across groups in the outcome variables. Five years after the peer group measure, "high risk" youth and "others" reported higher levels of drug use than did "hot shots" and "regulars." That difference is reflected in their higher prevalence of soft drug use, alcohol and marijuana use, hard drug use, drug problems, drug consequences, and drug-related driving. The high-risk youth were less likely than the other groups to have graduated from high school. There were no significant differences among groups in the likelihood of being married or engaged, but the high-risk youth and regulars were most likely to report being parents. There were no significant differences

TABLE 1. Group self-identification in continuation high school and functional status five years later: Four-group analysis.

<i>Measure</i>		<i>High risk</i> (<i>n</i> =136)	<i>Hot shot</i> (<i>n</i> =30)	<i>Other</i> (<i>n</i> =214)	<i>Regular</i> (<i>n</i> =152)
	<u>Model χ^2</u>	<u>Group % (% of Total)</u>			
All soft drug use	12.00**	84 (22)	79 (04)	85 (25)	72 (29)
Alcohol and marijuana	8.26*	75 (19)	63 (03)	78 (23)	66 (26)
Hard drug use	7.93*	19 (05)	11 (01)	16 (05)	8 (03)
Drug problem checklist	8.23*	16 (04)	7 (01)	18 (05)	9 (04)
Graduate high school	19.72***	52 (13)	78 (04)	66 (20)	77 (31)
Married or engaged	1.13	32 (08)	30 (02)	28 (08)	27 (11)
Is a parent	15.52***	56 (14)	47 (03)	33 (09)	57 (23)
Like living situation	14.74**	62 (16)	70 (04)	42 (13)	44 (17)
Own house	.87	32 (08)	39 (02)	37 (11)	34 (13)
No financial aid	13.70 (3)**	79 (21)	97 (06)	90 (26)	78 (31)
Currently employed	04.14 (3)	68 (17)	77 (04)	78 (22)	75 (30)
	<u>Model F</u>	<u>Mears (SD)</u>			
Drug consequence scale	5.31***	1.26 (.41) ^a	1.12 (.21) ^{bc}	1.21 (.38) ^{ac}	1.12 (.25) ^b
Drug-related driving	4.06**	1.63 (.83) ^a	1.47 (.65) ^{ab}	1.60 (.72) ^a	1.39 (.64) ^b
Violence perpetration	3.86**	1.15 (.55) ^a	0.93 (.55) ^{ab}	1.04 (.73) ^{ab}	.90 (.54) ^b
Victimization	4.62**	1.24 (.86) ^a	1.03 (.69) ^{ab}	1.12 (.76) ^a	.96 (.55) ^b
Depression	.67	1.62 (.74) ^a	1.63 (.76) ^a	1.51 (.73) ^a	1.53 (.66) ^a

Notes. The degrees of freedom for all χ^2 models was 3, and for the F models it was 3, 530;

* $p < .05$, ** $p < .01$, *** $p < .001$.

among groups in the likelihood of owning a home, but the hot shots were most likely to be satisfied with their living situation. There were no significant differences among groups in the likelihood of being employed, but high-risk youth and regulars were most likely to report receiving financial aid. High risk youth reported the highest rates of both violence perpetration and victimization. Depression did not differ significantly across the groups.

An additional analysis was conducted comparing high-risk youth to all others. The results of that analysis are shown in Table 2. High-risk youth had higher scores than all other youth on hard drug use, drug consequences, drug-related driving, and both violence perpetration and victimization. They were significantly less likely than other groups to have graduated from high school and to be employed, and they were significantly more likely to be parents. Conversely, they were also more likely than other groups to like their living situation.

TABLE 2. Group self-identification in continuation high school and functional status five years later: High risk youth versus all others.

<i>Measure</i>		<i>High risk</i> (<i>n</i> =136)	<i>All others</i> (<i>n</i> =386)
	<u>Model χ^2</u>	<u>Group % (% of Total)</u>	
All soft drug use	2.48	84 (22)	78 (58)
Alcohol and marijuana	1.11	75 (19)	70 (52)
Hard drug use	4.07*	19 (05)	11 (08)
Drug problem checklist	1.23	16 (04)	13 (09)
Graduate high school	15.27***	52 (13)	73 (55)
Married or engaged	1.01	32 (08)	27 (20)
Is a parent	10.84***	56 (14)	40 (30)
Like living situation	8.78**	62 (16)	45 (34)
Own house	.41	32 (08)	35 (26)
No financial aid	1.27	79 (21)	84 (62)
Currently employed	3.70*	68 (17)	77 (57)
	<u>Model F</u>	<u>Mears (SD)</u>	
Drug consequence scale	9.08**	1.26 ^a	1.16 ^b
Drug-related driving	4.65*	1.63 ^a	1.48 ^b
Violence perpetration	8.12**	1.15 ^a	.95 ^b
Victimization	9.45**	1.24 ^a	1.03 ^b
Depression	1.38	1.62 ^a	1.53 ^a

Notes. The degrees of freedom for all χ^2 models was 1, and for the F models it was 1, 532.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

The results of this study indicate that adolescents' peer group self-identification during high school can affect or predict their decisions and life circumstances in young adulthood. Over a five-year period, respondents who had self-identified with high-risk peer groups during high school were more likely than their peers to have become involved in drug use and violence, and they were significantly less likely to have graduated from high school and found stable employment. Even within this continuation high school sample, where rebellious behaviors such as substance use are normative across multiple peer groups (Sussman, Stacy, Dent, Simon, Galaif, and Moss, 1995b), the students who identified with high-risk peer groups were the most likely to experience adverse life situations in young adulthood. These findings in a higher-risk continuation high school sample are consistent with research in an average-risk sample (Barber *et al.*, 2001). Both studies indicate that adolescents who identify with high-risk peer groups in high school are at risk for substance use, unemployment, and other adverse outcomes in early adulthood. Although the average levels of risk behavior might differ across samples, the association between peer group affiliation and outcomes in young adulthood appears to be similar.

Several explanations for this finding are plausible. First, the students' peer groups might have influenced their behavior and decisions and actually altered their life courses. For example, high-risk peer groups might encourage an adolescent to experiment with drugs, not to finish school, or not to seek or maintain stable employment. Alternatively, it is possible that affiliation with high-risk peer groups is merely an early step in a process of problem behaviors and antisocial life choices that begins in childhood or adolescence and culminates in adulthood with more extensive, social, physical, and economic problems. Another possibility is that high-risk peer groups recruit certain adolescents on the basis of their appearance, personalities, or behaviors. Those adolescents might be more likely to be recruited by other high-risk peer groups as they transition from high school into other social contexts, and the risk behaviors of those peer groups might continue to influence their behavior and life choices. It is also possible that all of these processes play a role; adolescents with predisposing emotional or social problems might seek out (or be recruited by) deviant peer groups, and the high-risk peers in those groups might encourage and reward their involvement in antisocial behaviors. Of course it is certainly possible that group self-identification is only a self-perception variable that has little relation to real groups in one's social environment. It may identify some group image one wishes to project about oneself. One may want to think of themselves as a "heavy metaler," for example, to reflect one's affinity for the lifestyles of rock and roll idols rather than reflect one's peer group. This possibility could be assessed by comparing data from group self-identification work with sociometrics data collected from the same youth.

These results have implications for prevention program development for high-risk adolescents. Group self-identification as a high risk youth could be used as a screening variable to help to direct programming to those most in need of it. However, since so many youth self-reported as "others" and were still of high risk (see Table 1), a current screening variable based on current items would not be sensitive enough. Why many

youth that are at high risk choose to be labeled as not a member of a discrete high risk group needs further investigation. Also, the potential for stereotyping of youth selected into programming based on their self-identification always is a danger in targeted prevention programming. Other prevention implications might include breaking perceptions that a desired group “really” exists. Through interactive discussion one may be taught that one is not conforming to much more than an image. Further, one may learn that the image is promoted by corporate sponsors who make money off of their beliefs. Such information might lead to rebellion against that image, which they may come to see as having used them to sell products. Alternatively, if these groups are a reality, one may be taught that drug use is not a true criterion for group membership, that one can be a part of groups without drugs, or that one might not want to be part of a group that expects one to hurt oneself. Prevention implications are speculative at this point. Much more research on group self-identification is needed to be able to discern its usefulness in prevention applications. The present study provides data suggesting that this construct may have long term effects on behavior. The present results indicate that perhaps more work should be completed so that prevention science can make good use of this avenue of work.

Because this is a study of continuation high school students, the results cannot be generalized to other populations. However, consistent findings in other studies of lower-risk youth (Barber *et al.*, 2001) suggest that similar processes might occur among high-risk and low-risk youth. Perhaps within any population of adolescents, those who identify with high-risk peer groups are beginning a trajectory toward rebellious behavior, which later places them at risk for problems with psychosocial functioning in adulthood. Additional longitudinal studies of diverse samples of adolescents are needed to determine whether these effects generalize to other populations of adolescents. These findings are based on adolescents’ self-reports of their peer group affiliations and risk behaviors. It is not known whether the students who reported membership in high-risk peer groups actually were friends with other adolescents who reported membership in those groups, or whether they merely admired those groups. Social network analysis could help to determine if adolescents’ self-reported peer groups correspond with their actual friendship networks. Despite the confidentiality of the data, some respondents also might have underreported or over-reported their substance use or other risk behaviors. Although the longitudinal design of this study allowed us to establish the temporal order of the variables and strengthened our confidence in the observed relationships among variables, it does not prove causality. These data do not answer the question of whether the peer group alters an adolescent’s life trajectory, or whether joining a high-risk peer group is an early step on that trajectory.

Conclusions

In this sample of continuation high school students, those who identified with high-risk peer groups showed poorer psychosocial functioning five years later, as evidenced by higher levels of drug use, violence, and unemployment. Interventions are needed during adolescence to prevent those adverse outcomes, especially among adolescents

whose peer group norms encourage risky behaviors. High-risk group self-identification may suggest a means to screen and intervene on youth that are at highest risk for continued drug use, to alter their life course.

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