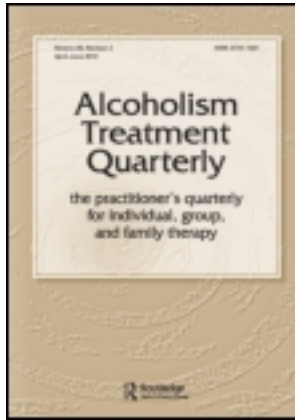


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Addiction and “Generation Me” : Narcissistic and Prosocial Behaviors of Adolescents with Substance Dependency Disorder in Comparison to Normative Adolescents

Rebecca R. Carter ^a , Shannon M. Johnson ^a , Julie J. Exline ^b ,
Stephen G. Post ^c & Maria E. Pagano ^a

^a Case Western Reserve University, Department of Psychiatry,
Division of Child Psychiatry, Cleveland, Ohio, USA

^b Case Western Reserve University, Department of Psychological
Sciences, Cleveland, Ohio, USA

^c Center for Medical Humanities, Compassionate Care, and
Bioethics, School of Medicine, Stony Brook University, Long Island,
New York, USA

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Addiction and “Generation Me”: Narcissistic and Prosocial Behaviors of Adolescents with Substance Dependency Disorder in Comparison to Normative Adolescents

REBECCA R. CARTER, BA, and SHANNON M. JOHNSON, BA

Case Western Reserve University, Department of Psychiatry, Division of Child Psychiatry, Cleveland, Ohio USA

JULIE J. EXLINE, PhD

Case Western Reserve University, Department of Psychological Sciences, Cleveland, Ohio USA

STEPHEN G. POST, PhD

Center for Medical Humanities, Compassionate Care, and Bioethics, School of Medicine, Stony Brook University, Long Island, New York USA

MARIA E. PAGANO, PhD

Case Western Reserve University, Department of Psychiatry, Division of Child Psychiatry, Cleveland, Ohio USA

The purpose of this study is to explore narcissistic and prosocial behaviors as reported by adolescents with and without substance dependency disorder (SDD). This study employs a quasi-experimental design using adolescents with SDD compared with two normative samples of adolescents. In comparison to normative adolescents, adolescents with SDD were strongly distinguished by overt narcissistic behaviors and less monetary giving. Levels of narcissistic and prosocial behaviors among adolescents with SDD

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Address correspondence to Maria E. Pagano, PhD, Case Western Reserve University School of Medicine, Department of Psychiatry, Division of Child Psychiatry, 11100 Euclid Avenue, Cleveland, OH 44106. E-mail: maria.pagano@case.edu

suggest a connection between self-centeredness and addiction. Results also suggest volunteerism as a potential option to counter narcissism in adolescents who are substance dependent.

KEYWORDS Narcissism, altruism, generation me, adolescents, addiction, substance dependence disorder

INTRODUCTION

Grandiosity and Addiction in Adolescence

Trend analyses of U.S. adolescent substance dependency indicate that adolescent drug abuse patterns are rapidly evolving. Studies have documented that the average age of first drug use is declining to age 12, drug use rates of females and males are expeditiously converging, and rates of substance dependency are at an all-time high among adolescents (Mulye et al., 2008; Sloboda, 2002). Furthermore, exposure to illicit substances during adolescence is linked to involvement in risky sexual behaviors and STDs (Stueve & O'Donnell, 2005), adolescent pregnancy (Ellickson, Tucker, & Klein, 2003), low educational attainment (King, Meehan, Trim, & Chassin, 2006), and crime (Elliott, Huizinga, & Menard, 1989).

The increased rate of substance dependency disorders in American adolescents coincides with the proposed trend of an increased sense of grandiosity and entitlement among adolescents in the 21st century (Twenge, 2006). This trend has been coined "Generation Me" by observers. When considered as a group, many members of this generation (born in the 1970s–1990s; Twenge, 2006) can be defined as narcissists, characterized by a lack of empathy, an aggressive reaction to criticism, and favoring of self-promotion over helping others. Although controversial, researchers have documented support for this theory (Twenge, Konrath, Foster, Campbell, & Bushman, 2008). Specifically, Twenge and colleagues (2008) showed, in their meta-analysis of 85 American college samples, above-average narcissism scores in two thirds of participants—a 30% increase from rates reported in 1987 (Twenge et al.). In contrast, Trzesniewski, Donnellan, and Robins (2008) suggested that rather than an increase in overall narcissism levels, specific features of narcissism (i.e., vanity and exploitativeness) have shifted over generations. Thus, it is crucial to examine narcissism as a multifaceted construct.

Considering its significant negative consequences, the construct of heightened narcissism is important to examine (Watson, Biderman, & Sawrie, 1994; Watson, Grisham, Trotter, & Biderman, 1984; Watson & Morris, 1991). Specifically, high levels of narcissism have been linked to impulsivity (Barry, Frick, Adler, & Grafeman, 2007), reactive and proactive aggression, and

severe conduct problems in adolescents (Barry et al., 2007), as well as sensation seeking (J. D. Miller et al., 2009), relational aggression, and delinquency (Barry, Pickard, & Ansel, 2009; Bushman & Baumeister, 1998; Locke, 2009). Notably, narcissistic adolescents that exhibit these associated negative behaviors are at increased risk for developing substance use disorders or high rates of drug use that remain stable into adulthood (Barry et al., 2009).

Theoretical Work on Narcissism and Addiction

The proposed link between addiction and narcissism has been addressed by theorists since the late 1800s. Beginning with the psychoanalytic school of thought, Freud theorized substance abuse as an oral longing and a sign of ego-centric despair in his id-ego psychology (Abraham, 1908; Freud, 1985). Modern theories on narcissistic pathology and ego psychology propose that the use of substances is linked directly to narcissistic disturbances (Acker, 2002; Tiebout, 1949, 1953, 1961; Tiebout et al., 1963). Specifically, those with narcissistic personalities may use alcohol or drug intake as a primary mechanism to "refuel" the pathological grandiose self, ensure its omnipotence, and provide protection against a potentially frustrating and hostile environment in which gratification and admiration are not forthcoming. More recently, psychologists have hypothesized that the narcissism/addiction link results from a pattern of yielding to inner urges in a way that proves costly and self-destructive (Baumeister & Vohs, 2001).

One barrier to identifying the narcissism/addiction link could be attributed to confusion with the terms *ego-centrism* and *ego development* during adolescence (Keagan, 1982). Youniss (1990) proposed that heightened sensitivity, self-absorption, and a preoccupation with self characterizes the normative ego-developmental period of adolescence. In contrast, the defining characteristics of ego-centrism include a grandiose sense of self-importance, a tendency to exaggerate accomplishments and talents, and an expectation to be noticed as "special" without appropriate achievement (Kohut, 1971; Millon, 1990). According to Miller & Eisenberg (1986), in the course of healthy development of a sense of self, adolescents gradually increase their interest outside themselves and learn to use other people, things, and activities as means to regulate self-esteem and modulate mood. These outward-directed interests are known as prosocial behaviors, or altruism, which according to Macaulay and Berkowitz's (1970) conceptual definition, are "behavior[s] carried out to benefit another without anticipation of rewards from external sources." In dramatic contrast, it is theorized that an adolescent with substance dependency fails to complete such normal development with any degree of success. As a result, such an individual does not transition to a stage of healthy ego development and increased interest outside the self and toward others. Instead, the adolescent becomes

developmentally arrested, and addiction becomes the determinant of his or her models and values (Kohut, 1971; Ulman & Paul, 2006). To explain further, illicit substances become a surrogate ideal or a substitute value that normally would be supplied by an internal sense of meaning, goal directedness, and value orientation. Instead, the adolescent's goals become external; the relief and pleasure sought with help of illicit substances lead to a predominantly self-serving lifestyle of drug-seeking behaviors (Wurmser, 1974).

Prosocial Behavior and the Treatment of Addictions

In general, prosocial behaviors among adolescents are related to a host of positive outcomes, including decreased drug and alcohol use, improved school grades, and lower pregnancy rates (Astin & Sax, 1998; Barber, Eccles, & Stone, 2001; Calabrese & Schumer, 1986; Eccles & Barber, 1999; Johnson, Beebe, Mortimer, & Snyder, 1998; Post & Neimark, 2007; Uggen & Janikula, 1999). Specifically, adolescents who participate in prosocial activities, such as volunteerism, drink significantly less frequently and use fewer substances than those who have not participated (Barber & Erickson, 2001). Involvement in prosocial behaviors also provides psychological benefit. For example, involvement in prosocial activities provides a buffer against feelings of depression and distress in adolescents (Feldman, Rubinstein, & Rubin, 1988). Also, adolescents involved in prosocial behaviors report higher levels of self-esteem in comparison to their peers (Barber & Erickson, 2001). Most important, prosocial behavior is a key element to empathy, with the most salient behavior correlate being volunteerism (Konrath, O'Brien, & Hsing, 2010).

Alcoholics Anonymous (AA), the nation's most popular adjunct treatment approach, has long theorized narcissism to be a root cause of addiction (A.A. World Services [AA], 2001). "Selfishness—self-centeredness! That, we think, is the root of our troubles. . . . Above everything, we alcoholics must be rid of this selfishness. We must, or it kills us" (AA, 2001, p. 62). Recently, empirical evidence has emerged to support AA's view (Pagano, Carter, Johnson, & Exline, 2010; Stinson et al., 2008). Specifically, Stinson and colleagues (2008) documented with a national sample that adults with narcissistic personality disorder (NPD) have high co-occurrence rates of substance abuse. However, subclinical levels of substance use were not assessed. Also, Cohen, Chen, Crawford, Brook, and Gordon (2007) documented in a random sample of youth that NPD in adolescence is independently and prospectively associated with later alcohol abuse/dependency symptoms. However, the narcissistic personality encompasses a broad spectrum and a large number of individuals, and only at the extreme end of the spectrum do we find those diagnosed by the formal criteria of NPD. Further, it is unclear which facets of narcissism are related more closely to addiction (Pagano et al., 2010).

AA's core treatment program addresses the narcissism hypothesized to be inherent in individuals with substance dependency. The program is known as "The Four Absolutes": absolute honesty, absolute unselfishness, absolute purity, and absolute love (AA, 1957). Absolute unselfishness, synonymous with altruism or helping others, is one of the cornerstones of the program and is highlighted as the antidote to an alcoholic/addict's self-preoccupied lifestyle. The program suggests that addicts and/or alcoholics continually ask themselves how their actions and decisions will affect someone else. It provides opportunities for service within AA such as being a door greeter and making coffee. The program also encourages alcoholics with one year of sobriety or more to sponsor incoming struggling alcoholics (AA, 1957; Zemore & Pagano, 2007). Project MATCH findings from Pagano, Friend, Tonigan, and Stout (2004) showed that recovering alcoholics who help other alcoholics are less likely to relapse in the year following treatment, independent of the number of AA meetings attended.

Purpose of Study

There is a paucity of empirical research that examines the link between elevated narcissistic behaviors and adolescent substance dependency. In general, adolescents with substance dependency tend to be understudied (Musick & Wilson, 2003). Available research recruits participants from normative populations and is largely preventative (Johnston, O'Malley, Bachman, & Schulenberg, 2009). In addition, research with this population must account for age and gender influences on social behavior independent of substance dependency (Carlo, Koller, Eisenberg, Da Silva, & Frohlich, 1996).

In this study, we examined prosocial and narcissistic behaviors in normative adolescents and substance dependent adolescents. The main hypotheses were as follows: (1) substance dependent adolescents are significantly more self-centered and narcissistic than adolescents from a normative population and (2) adolescents with a substance dependence engage in fewer prosocial behaviors than normative youth.

METHOD

Participants

Three subject samples were drawn for comparisons: (1) a clinical sample of substance dependent adolescents, (2) a normative sample of undergraduates, and (3) a normative sample of U.S. adolescents. Demographic characteristics of the clinical sample are presented in Table 1. The clinical sample of 115 adolescents who were substance dependent was recruited from New

TABLE 1 Demographic and Clinical Characteristics of ND Sample

Variable	Category	Total (<i>N</i> = 115, 100%)
Gender	Male	60 (52%)
Race	Minority	34 (30%)
Ethnicity	Hispanic	10 (9%)
Single-parent household	Yes	53 (46%)
Learning disability	Yes	12 (10%)
Grade	Less than 8 years	2 (2%)
	Middle school	20 (17%)
	Partial high school	88 (77%)
	High School	5 (4%)
Age	<i>M</i> (<i>SD</i>)	16.23 (1.71)
Parental History of SDD	Yes	60 (52%)
Legal Problems (Past 2 years)	No. of Arrests (<i>M</i> , <i>SD</i>)	2.77 (2.73)
	No. of Felonies (<i>M</i> , <i>SD</i>)	0.53 (1.17)
	History of Assault (Yes)	34 (30%)
	History of Robbery (Yes)	20 (17%)
	History of Burglary (Yes)	19 (17%)
	Ever on Parole/Probation (Yes)	100 (87%)
	Ever Jailed/Incarcerated (Yes)	77 (67%)
History of Abuse	Sexual (Yes)	30 (26%)
	Physical (Yes)	27 (23%)
History of Suicide Attempts	Yes	28 (24%)
History of Self Mutilation	Yes	38 (33%)

Directions (ND), the largest adolescent residential chemical dependency treatment facility in northeast Ohio. Inclusion criteria included (1) age 14 to 18 years, (2) English speaking, (3) stable address and telephone, (4) met *Diagnostic and Statistical Manual of Mental Disorders Fourth Edition* (American Psychiatric Association, [APA] 1994) diagnosis of one or more substance dependency disorders (SDDs), and (5) medically stable. Exclusion criteria included (1) a major chronic health problem other than alcohol or drug use likely to require hospitalization, (2) currently suicidal or homicidal, and (3) expected incarceration in the subsequent 12 months. Participants were referred to treatment from a variety of sources, including juvenile court (83%), mental health professionals (65%), and nonpsychiatric physicians (2%). In the week prior to their scheduled date of admission, participants were sent a packet of information that included an invitation letter to participate in the study. Following admission, participants were approached to participate. After a complete description of the study, eligible participants signed statements of informed consent/assent. Ninety-minute baseline interviews were conducted within the initial 10 days of treatment. Participants were paid \$25 for completed assessments. All procedures were approved by the

University Hospitals/Case Medical Center Institutional Review Board (IRB) and a Certificate of Confidentiality from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) was obtained. Data were collected from February 2007 to September 2009.

The second sample of 115 undergraduates was drawn from a small, private midwestern university for comparison of the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979; Raskin & Terry, 1988). Inclusion criteria included (1) undergraduate affiliation with the university and (2) age 18 years and older. Participants were recruited from introductory psychology classes and presented an average age of 17 years ($M = 17.93$, $SD = .57$). Prior to participation in the study, consent was obtained from the participants. Using a unique code number listed on the consent form, participants logged onto a Website and completed a web-based survey. Participants were compensated with course credit for the research component of the class. All research activities were approved by the Case Western Reserve University IRB. Data were collected from Spring 2003 to 2005.

The third sample of 115 adolescents was drawn from the General Social Survey (GSS; Smith, 2006) for comparison of altruistic behaviors. The GSS is a sociological survey used to monitor social trends in attitudes and behavior. Inclusion criteria included (1) resident of a US household population, (2) age 18 years and older, and (3) English or Spanish speaking. Participants presented an average age of 21 years ($M = 21.62$, $SD = 1.47$). After consent was obtained, assessments were conducted by trained sampling professionals of the National Opinion Research Center (NORC) in the participants' personal residences. Participants were not compensated. All research activities were approved by NORC's IRB. Data were collected in 2002.

Measures

Each participant in the clinical sample completed a demographic questionnaire. In addition, participants in the clinical sample completed an assessment of narcissism and an assessment of altruism. The normative college sample participants completed an assessment of narcissism. The normative U.S. adolescent sample participants completed an assessment of altruism.

Demographics

Demographic characteristics of subjects included age, gender, race, ethnicity, parental marital status (single vs. not single), parental education, and legal history in the 2 years prior to intake. Legal history was assessed using adapted items from the Teen Treatment Services Review (T-TSR; Kaminer, Blitz, Burleson, & Sussman, 1998).

Substance Dependency

Two substance use components were assessed: substance dependencies and nicotine use. Substance dependency disorders were assessed using the well-validated, rater-administered Mini International Neuropsychiatric Interview Plus (MINI-Plus; Humeniuk et al., 2008; Sheehan, Lecrubier, Sheehan, Amorim, & Janavs, 1998). The MINI-Plus is a comprehensive diagnostic, semistructured interview for current and lifetime time frames. Primary disorders are diagnosed when symptoms persist at least 4 weeks in the absence of heavy substance use or when symptoms precede the onset of heavy use. The MINI-Plus also provides continuous measures, including age at onset of disorder and severity measures based on symptom counts. Nicotine (cigarette) use was measured using the nicotine assessment of the I-90, an instrument developed in Project MATCH (National Institute of Alcohol Abuse and Alcoholism [NIAAA], 1996). Participants who reported smoking one or more cigarettes per day in the assessment period were classified as smokers. In this study, nicotine replacement therapies (i.e., nicotine patch, gum) were available for participants upon request.

Psychosocial Functioning

Narcissism was assessed with the NPI (Raskin & Terry, 1988; Shulman & Ferguson, 1988), a 40-item self-report questionnaire designed to measure individual differences in narcissism as a personality trait. The construction of the inventory was based on *DSM-IV-TR* (APA, 1994) criteria for narcissistic personality disorder (NPD). The NPI uses a forced-choice format with a narcissistic and a non-narcissistic response for each item; respondents are asked to choose the one closest to their feelings or beliefs. Items are summed to form seven subscales: Authority, Exhibitionism, Superiority, Entitlement, Exploitativeness, Self-sufficiency, and Vanity (Raskin & Terry, 1988). The total score of the NPI has demonstrated good internal consistency and test-retest reliability (del Rosario & White, 2005).

Altruism

Prosocial behaviors were assessed with the 2002 GSS self-report topical module of altruism (Smith, 2006). Five items form the altruism topical module of the GSS: (1) giving food or money to a homeless person, (2) doing volunteer work for a charity, (3) giving money to a charity, (4) looking after a person's home while he or she is away, and (5) carrying a stranger's belongings. With reference to the past year, items are rated on a six-point scale: 1 (*more than once a week*), 2 (*once a week*), 3 (*once a month*), 4 (at least 2 or 3 times in the past year), 5 (*once in the past year*), and 6 (not at all in the past year) (Davis, Smith, & Marsden, 2005). The module has

demonstrated adequate internal reliability, construct validity, and test–retest reliability (Smith, 2006; Underwood & Teresi, 2002).

Statistical Analysis

A quasi-experimental design was employed to examine the hypotheses. This design was selected over the standard randomized, controlled field experiment design given the ethical issues of assigning adolescents to a disease condition. Comparison groups were matched with identified relevant variables; generative behaviors have been known to increase with age and gender differences (Gilligan, 1982; McAdams & de St. Aubin, 1998). Thus, each adolescent with SDD was matched to an adolescent control by age and gender. Statistical analyses were performed using SAS version 9.1.3. Distributions of variables were examined for normality. Missing data for key variables at discharge ranged from 0.05% to 9.5%, and outcomes collected from medical charts were obtained for all participants. The family-wise error rate for two outcome data sets was set at .05 (two-tailed). Using fixed effect regression analysis, NPI subscale scores and GSS items were compared between groups using a nested-pair cluster to absorb pair-specific effects. All two-tailed tests with an alpha level of $p < 0.05$ were reported.

RESULTS

Sample Demographic Characteristics

The sample of substance dependent adolescents consisted of 115 adolescents who met current *DSM-IV* criteria for at least one or more SDD. Characteristics of the SDD study sample at baseline are presented in Table 1. Approximately one half of the SDD study sample were male (52%), were from a single parent household (46%), and had a parental history of SDD use (52%). Thirty percent were African American and 9% were Hispanic. Eighty-seven percent had a history of parole/probation, with an average number of 2.77 arrests and 0.53 felonies. Nearly one in four adolescents reported a history of sexual abuse (26%), physical abuse (23%), and suicide attempts (24%). One third of the participants reported a history of self-mutilation (33%).

Overt narcissistic behaviors among adolescents with SDD were identified in Table 2. Five of seven subscale scores were significantly higher among adolescents with SDD when compared to a normative sample: authority ($p < .01$), exhibitionism ($p < 0.0001$), exploitativeness ($p < 0.0001$), vanity ($p < 0.001$), and entitlement ($p < 0.05$). The subscale scores of superiority and self-sufficiency were similar between adolescents with and without SDD.

Reduced altruistic behaviors were found among adolescents with SDD in comparison with normative adolescents, as shown in Table 3. When com-

TABLE 2 Narcissistic Personality Inventory Scores: Comparison between Adolescents with and without Substance Dependency Disorder

NPI Subscale score	Total (N, %)	Adolescents (normative)	Adolescents with substance dependency disorder
	230 (100%)	115 (50%)	115 (50%)
Authority (<i>M, SD</i>)	4.34 (2.11)	3.87 (2.22)	4.81 (1.88)**
Entitlement (<i>M, SD</i>)	2.17 (1.54)	1.97 (1.61)	2.37 (1.43)*
Exhibitionism (<i>M, SD</i>)	2.35 (1.79)	1.97 (1.61)	2.37 (1.43)***
Exploitativeness (<i>M, SD</i>)	1.85 (1.40)	1.50 (1.38)	2.20 (1.33)***
Superiority (<i>M, SD</i>)	2.48 (1.40)	2.35 (1.42)	2.61 (1.39)
Self-Sufficiency (<i>M, SD</i>)	2.37 (1.37)	2.36 (1.52)	2.39 (1.21)
Vanity (<i>M, SD</i>)	1.25 (1.11)	1.02 (1.12)	1.49 (1.07)**

Notes. * $p < .05$, ** $p < .01$, *** $p < .0001$.

TABLE 3 General Social Survey Scores: Comparison between Adolescents with and without Substance Dependency Disorder

General Social Survey (GSS) item	Normative adolescents <i>N</i> = 115	Adolescents with substance dependency disorder <i>N</i> = 115
GSS Total Score	23.93 (3.98)	23.82 (4.30)
Gives money to charity (<i>M, SD</i>)	4.66 (1.31)	5.06 (1.15)***
Gives food/money to homeless (<i>M, SD</i>)	4.45 (1.44)	4.80 (1.17)***
Looks after neighbor's plants/mail/pets (<i>M, SD</i>)	4.88 (1.33)	4.67 (1.36)
Volunteers (<i>M, SD</i>)	4.98 (1.34)	4.84 (1.38)
Carries belongings for stranger (<i>M, SD</i>)	4.95 (1.23)	4.46 (1.20)*

Notes. * $p < .05$, ** $p < .01$, *** $p < .0001$.

GSS items are rated: 1 = "more than once a week," 2 = "once a week," 3 = "once a month"; 4 = "2-3 times in past year," 5 = "once in past year"; 6 = "not at all."

pared with to a normative sample, adolescents with SDD were significantly less likely give aid to charity ($p < 0.0001$) or the homeless ($p < 0.0001$). The altruistic behavior scores of caring for a neighbor's property, volunteering, or carrying belongings for a stranger were similar between adolescents with and without SDD.

DISCUSSION

This study was the first to examine other-oriented variables, specifically prosocial behaviors and narcissism, which distinguish adolescents with SDD in comparison to normative adolescents. The potential confounds of age, gender, and cohort influences were addressed by the matched-pair design. Consistent with previous research with adults (Dias & Pólvara, 1983; Pagano

et al., 2004; Zemore & Pagano, 2007), study findings indicated that in comparison with a normative sample of undergraduates, adolescents with SDD showed more overt narcissism, specifically within the subcategories of exhibitionism, exploitativeness, vanity, and entitlement. Adolescents with SDD, in comparison to a normative national sample, also showed lower levels of prosocial behaviors. Specifically, the fiscal behaviors of monetary donation and frequency of monetary donation to charity were reduced in addicted adolescents. Given that prosocial behaviors have been shown as beneficial to recovery and sobriety (Emrick, Tonigan, Montgomery, & Little, 1993; Forcehimes & Tonigan, 2008; Kelly, Stout, Zywiak, & Schneider, 2006; Moos & Moos, 2006), reduced other-oriented behaviors are an outcome of great concern.

Findings of this study provide preliminary support for AA's theory of egocentrism as a root cause of addiction (AA, 2001, p. 62). Most addicts/alcoholics begin to drink before age 13. Their focus remains on their individual self as they mature, obstructing them from assuming adult roles and responsibilities. Levels of hostility and impulsivity remain high. Addiction may influence adolescents in early adolescence to become stunted in their development, therefore causing them to become stuck in a self-obsessed mental system that encourages and promotes harmful behavior (Elkind, 1967).

Limitations

There are several limitations of this study that should be noted. First, the normative sample collected for comparison of the NPI was derived from a private university setting that consisted of a more affluent demographic than the SDD adolescent sample. Despite this disparity, a significant difference between participant groups was found, supporting study findings. Second, the GSS database excluded individuals younger than age 18. However, participants were matched by gender and age within 3 years. Last, assessments were based on self-report. However, self-report of substance use has been shown to be useful under research conditions (Del Boca & Noll, 2000), particularly when interviewers not associated with the clinical intervention provide an assurance of confidentiality to the participants.

Clinical Implications and Future Directions

Findings from this study may be relevant for professionals serving adolescents with substance abuse problems. The discovery of relationships between addiction, overt narcissism, and decreased helping behaviors raises the possibility that clients could benefit from increasing other-oriented behaviors as part of their recovery program. For example, professionals might encourage clients to engage in helping behaviors as a complementary outpatient treatment modality in addition to a traditional 12-Step program.

The idea of recommending prosocial behavior as a treatment modality may seem counterintuitive, but in studies of other age groups the concept is being put into practice. For example, one study demonstrated utility of helping others as among adults with long-term sobriety as a behavioral strategy to maintain successful addictive behavioral change (Pagano et al., 2009). This method of behavior modification through increased altruism is currently being implemented at Hopewell Therapeutic Farms in Northeast Ohio (<http://www.hopewell.cc>), where helping others is encouraged as a way of overcoming mental illness among program participants. Clients engage in meaningful prosocial experiences, resulting in symptom reduction and fewer instances of relapse.

More broadly speaking, the results of this study highlight narcissistic and prosocial behaviors as multifaceted constructs, certain facets of which appear related to addiction. Future studies may investigate the degree to which adolescents' with SDD level of addiction or narcissism may be reduced by increased prosocial behaviors, such as engaging in volunteerism activities. Whether basic or applied, continued research on the links between substance use, narcissism, and helping behaviors has the potential to improve interventions and outcomes for adolescents with SDD.

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