

The Alternative Peer Group

A Developmentally Appropriate Recovery Support Model for Adolescents

Angela Nash, PhD, CPNP-PC, PMHS O Crystal Collier, PhD, LPC-S

Abstract

Recovery as the goal for substance use disorder treatment has been a key component of the Substance Abuse and Mental Health Services Administration's mission for the past decade. Consistent with their mission, there is a call for research and development of recovery-oriented systems of care to support affected individuals through all stages of the recovery process. Evidence is emerging to support recovery practice and research for adults, but recovery-oriented models for adolescents are scant. The Alternative Peer Group (APG) is a comprehensive adolescent recovery support model that integrates recovering peers and prosocial activities into evidence-based clinical practice. Employing APG participants' own words, this article will describe the essential elements and three theoretical frameworks underlying the APG model to illustrate how the APG serves as a developmentally appropriate recovery support service for adolescents with substance use disorder.

Keywords: adolescent substance use disorder, recovery, recovery-oriented system of care, theory

Effective intervention for adolescent substance use disorders (SUDs) is a matter of critical importance to the public health of our nation, especially when considering that one in four 12th graders reports drinking to intoxication at least once in the past 2 weeks and 1 in 15 reports daily or near-daily use of marijuana (Johnston, O'Malley, Miech, Bachman, & Schulenberg, 2014). Because of their developing neural systems, adolescents are more vulnerable to a rapid progression from substance use to dependence (Mee-Lee, Shulman, Fishman, Gastfriend, & Griffith, 2007; Perry et al., 2011). Of all adults reporting dependence on alcohol, tobacco, or marijuana, 90% began using before

the age of 18 years, and 50% began before the age of 15 years (Dennis, Dawud-Noursi, Muck, & McDermeit, 2003). Only 10% of 12- to 17-year-olds who need SUD treatment actually receive it (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). For those who do, reports of first-year relapse rates ranging from 60% to 80% suggest that treatment gains quickly fade (Chung & Maisto, 2006; Ramo & Brown, 2008; Wagner, 2008).

A unique blend of individual and contextual factors contributes to the evolution of adolescent SUD (Black & Chung, 2014; Schulenberg, 2006; Schulenberg & Maggs, 2002). The dynamic developmental processes and transitions of adolescence influence the manner in which adolescents engage in and maintain behavior change (Schulenberg, 2006; Wagner, 2008). Accordingly, to be effective, experts recommend treatment models that are comprehensive, developmentally appropriate, and tailored to address the multifactorial issues and social contexts associated with adolescent SUD (Brannigan, Schackman, Falco, & Millman, 2004; National Institute on Drug Abuse, 2012). However, a systematic evaluation of 144 highly regarded adolescent SUD treatment programs showed that most of these programs included only a fraction of the recommended elements (from a possible score of 45, the mean and median scores were 23.8 and 23, respectively; Brannigan et al., 2004).

Adolescent SUD treatment should be conceptualized as a process, rather than a single event (Kaminer & Godley, 2010; Winters, Botzet, & Fahnhorst, 2011). This process must consider that adolescent substance users are less likely to attend treatment willingly and generally return to using more quickly after treatment than their adult counterparts (Kaminer & Godley, 2010; Winters & Kaminer, 2011). Although it is difficult to determine true remission rates for adolescents, an analysis of treatment outcomes from 2000 to 2011 extrapolated an average recovery/remission rate of 35% for adolescents, compared with 50% for adults (White, 2012). Clearly, a need exists for practice improvement to promote recovery for adolescents.

The SAMHSA currently promotes recovery-oriented systems of care (ROSC) models to support people throughout the various phases of the SUD recovery process (Laudet, Flaherty, & Langer, 2009; SAMHSA, 2009). ROSC models include a continuum of coordinated community services and peer support services to assist affected individuals to achieve long-term recovery. Beneath the ROSC umbrella, the focus of SUD treatments has begun to shift

Angela Nash, PhD, CPNP-PC, PMHS, University of Texas Health Science Center School of Nursing, Houston.

Crystal Collier, PhD, LPC-S, The Council for Alcohol and Drugs, Houston, Texas.

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

Correspondence related to content to: Angela Nash, PhD, CPNP-PC, PMHS, University of Texas Health Science Center School of Nursing, 6901 Bertner Ave. SON 648, Houston, TX 77030.

E-mail: angela.j.nash@uth.tmc.edu

DOI: 10.1097/JAN.0000000000000122

toward prevention, early intervention, and recovery management (Laudet et al., 2009; SAMHSA, 2015). A promising adolescent SUD treatment model that includes such a focus is the Alternative Peer Group (APG). The aims of this article are to describe the APG model and to consider how the following theories inform the therapeutic elements of the model to provide a developmentally appropriate recovery support service for adolescents experiencing SUD. These theories are (a) bioecological theory, (b) social learning theory, and (c) the stages of change theory of behavior change. A sampling of former APG participants' own words will be provided to illustrate the developmental appropriateness of APG therapeutic elements.

THE APG MODEL

The APG is a comprehensive adolescent recovery support model that promotes long-term engagement in the recovery process by integrating recovering peers and prosocial activities into evidence-based clinical practice (Collier, Hilliker, & Onwuegbuzie, 2014; Morrison & Bailey, 2011). Congruent with the principles of the ROSC continuum of community services and peer supports, APGs provide a mediating step between inpatient care and return to the home/school environment for adolescents. The APG model aligns well with key elements of social, developmental, and change theories underlying adolescent behavior.

Having originated more than 40 years ago, APGs have a rich history in Houston, Texas (Cates & Cummings, 2003;



Figure 1. Visual representation of the key elements of the Alternative Peer Group model.

Collier et al., 2014). The positive social influence of recovering peers and adults is the key therapeutic element of the APG model. Participating in regular fun, structured prosocial activities serves to engage and retain adolescents, while promoting long-term relationships with recovering peer role models. These activities occur in the context of long-term outpatient clinical programs and contribute to the development of program alumni (youth and families) who become skilled peer role models for newly enrolled teens and families. Figure 1 illustrates the key elements of the APG model. Although research on the APG model is only emerging, Rochat et al. (2011) reported 2-year sobriety rates of 89%–91% in one study of adolescents who had completed treatment in an APG program.

The first author conducted a focused clinical ethnography to examine an APG in Houston, Texas, to clarify the process of adolescent recovery and identify key therapeutic elements that the APG utilizes to support the process (Nash, Marcus, Engebretson, & Bukstein, 2015; Teen and Family Services, 2014). Focused clinical ethnography is a form of medical anthropology that aims to understand how people with distinct clinical issues experience and interpret their condition (Engebretson, 2011; Cruz & Higginbottom, 2013). Qualitative methods employed included prolonged immersion in the APG and its affiliated Recovery High School, interviews (individual and group), and thematic content analysis. A full description of the methods and results is published elsewhere (Nash et al., 2015).

The APG alumni in this study described the process of recovery from adolescent SUD as a quest-like rigorous “journey” requiring the support and involvement of key individuals from each of the adolescents’ primary ecological environments. The probability of relapse was reported by participants to decrease inversely with the duration of exposure and internalization of recovery values (Nash et al., 2015). Programmatic and relational elements consistently identified by participants as critical to sustained trajectories of recovery from adolescent SUD included (a) recovering peers, (b) fun, (c) a sense of belonging, (d) structure, (e) accountability, (f) recovery narratives of peers further along in the process, (g) family support, (h) service, and (i) extensive posttreatment immersion in recovery-oriented support systems. Table 1 aligns the three theories with associated APG elements and illustrates the developmental impact on adolescents using former APG participants’ own words.

THEORETICAL FOUNDATIONS OF THE APG MODEL

Adolescent development and behavior is influenced by a range of factors, as described in a number of human development and change theories: the bioecological theory of human development (Bronfenbrenner, 1994), social learning theory (Akers, 1973; Bandura, 1969), and the transtheoretical (stages of change) model (Norcross, Krebs, & Prochaska, 2011; Prochaska & DiClemente, 1983). These theories elucidate the

elements that influence how an adolescent enters and sustains recovery from SUD within an APG.

Bioecological Theory

Bronfenbrenner's bioecological theory posits that human development occurs within a progressively complex series of reciprocal interactions between the developing individual and those within their primary social context with whom they develop a strong, mutual attachment (Bronfenbrenner & Evans, 2000). The power, form, and direction of these developmental processes vary as a function of the individual's characteristics, the environment in which they occur, and the nature of the developmental outcomes in consideration (Bronfenbrenner & Evans, 2000; Schulenberg, 2006).

According to the bioecological theory, developmental processes take place within a series of nested environmental contexts that play increasingly more complex roles as the individual grows (Bronfenbrenner & Evans, 2000; Schulenberg, 2006; Tudge, Mokrova, Hatfield, & Karnik, 2009). The primary context is the microsystem, which, for an adolescent, includes the family, peer groups, and school. The microsystem is nested within increasingly larger-scale environmental contexts: the mesosystem, the exosystem, the macrosystem, and the chronosystem. The mesosystem refers to reciprocal interactions between the various members of a microsystem (e.g., interactions between the adolescent's family and school officials). The exosystem refers to institutional or relational processes that directly influence the members of the microsystem and in turn influence the individual, although the individual might have no personal contact with them. Examples include the impact of parents' work or social networks on the adolescent's level of perceived stress or support. The macrosystem refers to the economics, values, cultural expectations, and laws of the culture or subculture. Examples include the geopolitical climate, social norms portrayed by media, level of cultural chaos, and so forth. The chronosystem refers to the overarching dynamic influences of time, timing, exposure, and role transitions (positive or negative) that impact all the systems. Examples include the adolescent's transition from middle school to high school, transitions that occur because of a divorce or death in the family, or technological progress that results in altered patterns of communication (Bronfenbrenner & Morris, 2007; Tudge et al., 2009).

According to the bioecological theory, quality development processes should be regular, consistent, sustained, and supportive; convey long-range commitment to the well-being of others; and encourage the individual to explore and engage with the environment (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Morris, 2007). The outcomes of these processes, competence or dysfunction, depend on the individual's characteristics, blended with the power, dose, and timing of exposure to the processes. Competence is defined as the gaining of skills and knowledge and the capacity to regulate and integrate one's behavior

across various circumstances and developmental domains. Dysfunction is defined as recurrent difficulties in regulation and integration of one's behavior across various circumstances and developmental domains (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Morris, 2007).

To promote competence, the bioecological theory suggests that adolescent SUD recovery support models should:

- involve members from each of the adolescents' primary contexts
- be characterized by positive regard and a clear consistent structure over prolonged periods
- provide frequent, repetitive counseling and skill building (individual, group, and family) to encourage internalization of new cognitive and behavior patterns
- include supervised fun activities, challenging situations, and opportunities to practice social skills
- be informed by the critical elements of time, timing, and duration and
- provide strong linkages between intensive treatment, aftercare, and community peer supports.

Consistent with the bioecological theory, the APG model provides long-term outpatient structure shaped by counseling professionals and alumni youth staff, incorporates the positive regard of an alternative prosocial peer group, and includes the family in treatment (Collier et al., 2014). Counseling and youth staff who are warm and engaging serve as recovery role models, promoting and nurturing the establishment of a network of enduring supportive peer relationships with the adolescents and their families. In addition, APGs incorporate long-term programming and time commitment for the adolescent to engage in treatment and to complete specific curricular, behavioral, and treatment milestones. Adolescents vary in the amount of time required to engage in treatment and to complete these goals, ranging from 6 to 18 months (Collier et al., 2014; Nash et al., 2015). This time commitment allows for prolonged exposure to the recovery role models and the frequent and consistent practice of new skills. Over time, new behavioral and cognitive patterns emerge to replace previously dysfunctional patterns of behavior. APG counseling groups, teen 12-step meetings, multifamily groups, parent groups, and sober social activities provide a supportive bridge to fill the gap between intensive treatment and successful integration back to into an adolescent's larger social ecology.

Social Learning Theory

Bandura's social learning theory posits that learning occurs within a social context through modeling and observation (Bandura, 1969). Ronald Akers (1973) combined behaviorism and social learning by asserting that learning occurs by direct conditioning as well as by imitation or modeling. According to these perspectives, deviant behavior is more likely to occur when deviance is differentially reinforced over other behaviors and when it is viewed as desirable by

the groups with which an adolescent identifies (Akers, Krohn, Lanza-Kaduce, & Radosevich, 1979). It stands to reason that the converse is also true. Prosocial behavior is more likely to occur when it is reinforced over other behaviors and when it is viewed as desirable by an adolescent's identified peer group.

The powerful force of social influence and learning serves as the fundamental theoretical foundation underlying the APG model (Collier et al., 2014). This comprehensive program utilizes social learning theory within the adolescent's peer environment and family system. Positive recovering peers support recovery and model healthy behavioral choices by differentially reinforcing recovery and other prosocial behaviors. One of the first lessons peer role models teach new adolescents is how to have fun in recovery. To apply differential reinforcement and create positive identification with prosocial behaviors, APG youth staff members (i.e., young people in recovery) assist the counselors in shaping recovery norms by engaging with clients as mentors, facilitating peer-led groups, and engaging in and monitoring prorecovery social activities and afterschool hangouts (Collier et al., 2014). As new APG members gain time in the program, they are taught and held responsible for becoming a leader in their community. These adolescents are asked to sit on committees that may plan and organize weekend prorecovery social functions or retreats. As the adolescent develops friendships and becomes more invested in the community, the social pressure to maintain prosocial behavior grows. Many adolescents report their desire to be honest about past relapses and behavioral regressions peaks during and after intense retreats, where adolescents spend days together engaged in prorecovery social activities such as mountain trips or beach weekends (Nash et al., 2015).

The adolescent's family receives similar social modeling from more experienced parents and APG counseling staff by participating in multifamily and parent groups. New families are encouraged to listen and follow the advice of families who have "been there" with their children. More experienced families model and differentially reinforce new family norms that support recovery. Many APG counseling staff members are persons in long-term recovery from adolescent SUD. Thus, they provide examples of successful adult lives born from a tumultuous adolescence. Hope arises for new families as they observe adult and youth staff model successful recovery. This allows them to slowly learn to trust a process that many others have undergone (Collier et al., 2014; Nash et al., 2015).

Modeling, observation, and differential reinforcement do not adequately address the power of adolescent peer group influence. At no other time during our developmental life-span does the influence of peers appear to play such an integral role as during adolescence (Gardner & Steinberg, 2005; O'Brien & Bierman, 1988). Peer groups influence individual feelings of self-esteem and social support and appear to have a greater influence regarding appearance, attitudes, and values as well as illicit activities (Gardner & Steinberg, 2005;

O'Brien & Bierman, 1988). Adolescents create social identities that reflect their peer group and the associated values, beliefs, and ideas of that group, thus creating a powerful influence on behavior in adolescence (Collier et al., 2014). Adolescents involved in APGs begin to create new social identities with new prosocial recovery values (Collier et al., 2014; Nash et al., 2015). Considering that peer conformity decreases and resistance to peer influence increases with age (Gardner & Steinberg, 2005), the APG model's key therapeutic element is to harness the power of peer influence and social learning during a crucial developmental stage (Collier et al., 2014).

Romer (2010) surmised that peer influence and emotional attraction to risky behavior account for over half of the variation in adolescent tobacco, alcohol, and marijuana use. Conversely, regarding substance use recovery, the most important factor in achieving and maintaining abstinence from alcohol and drugs after treatment for adolescents was a positive peer network (Ramirez, Hinman, Sterling, Weisner, & Campbell, 2012). The APG model utilizes peer influence as a change mechanism, including the foundational assumption that peer relationships, much like the ones that encouraged high-risk behavior, are necessary to enable recovery (Morrison & Bailey, 2011). As the name implies, the APG offers alternative peers who are modeling and reinforcing alternative attitudes, values, judgments, and behavior that support the change necessary to recover from substance abuse disorders. APGs apply differential reinforcement via teen 12-step meetings, peer/alumni mentorship or sponsorship, prorecovery social functions, multifamily group counseling, and psychosocial education for adolescents and parents.

Transtheoretical (Stages of Change) Model

The Transtheoretical Model, or stages of change model, posits that ambivalence over behavior change is normal and that changes in habitual behaviors are not the result of advice coming from persons of authority (Norcross et al., 2011; Prochaska, DiClemente, & Norcross, 1992). Ultimately, Prochaska and DiClemente (1982, 1983) recognize that people change their habitual behaviors when they are ready to change. Readiness for change occurs through an iterative set of stages (i.e., precontemplation, contemplation, preparation, action, and maintenance) in which a person considers and resolves ambivalence over changing (Prochaska & DiClemente, 1982). Skillful counselors can enhance motivation and move people from one stage to the next by respecting the autonomy of the person in deciding to change and tailoring intervention strategies to the person's stage of change (aka motivational interviewing). Matching the treatment intervention to the stage of change has shown clinically significant effects in psychotherapy outcomes (Norcross et al., 2011).

Keeping in mind that adolescents may enter an APG as an initial SUD treatment episode or after discharge from a residential treatment center, APG staff assess whether adolescents are in the precontemplation or contemplation stage of change. In these stages, adolescents may be resistant to recovery and

TABLE 1 Three Theoretical Frameworks, the Associated APG Elements, and the Associated Qualitative Evidence in the Form of APG Participants' Own Words

Theory	APG/Theoretical Elements	Qualitative Evidence
<p>Bioecological theory (Bronfenbrenner, 1994; Bronfenbrenner & Evans, 2000)</p>	<p>Staff in long-term recovery and climate of positive regard, acceptance, and welcome</p>	<p>APG participants: "I, you know, didn't want to go...and I hated it. But whenever I did want help later I was like, okay, well I like those people, you know, he seems cool." (29-year-old woman, in recovery for 10 years)</p> <p>"From the initial outset with G (the counselor). I mean, there was some sort of initial bond, especially when (my son) listened to G's story and all that G. went through." (Father of 23 year old man, in recovery for 6 years).</p>
	<p>Prolonged, regular structured therapeutic activities</p>	<p>APG participants: "My parents brought me here every day and I had no choice...that's all I did was just came every single day and...and I started hanging out with the girls." (19-year-old woman, in recovery for 4 years)</p>
	<p>Fun activities</p>	<p>"When she quit using her greatest fear was she'd never be able to have fun again. And then she found a group of kids who were fun and in recovery." (father of a 29-year-old woman, in recovery for 10 years)</p>
	<p>Daily exposure to positive peer role models</p>	<p>APG participant: "And that's what I saw, like there was no denying that it was working for other people. I knew these people used and drank and got high the same way I did, and they were getting better like right before my eyes." (23-year-old man, in recovery for 6 years)</p>
	<p>Peer narratives</p>	
	<p>Family inclusion and involvement</p>	<p>APG participant: "My parents really worked the program, And they really adopted the steps and like the principles. I'll always maintain that if it weren't for my parents I wouldn't have stayed in recovery." (29-year-old man, in recovery for 11 years)</p>
	<p>Social learning theory (Akers, 1973; Bandura, 1969)</p>	<p>Sense of belonging</p>
<p>Social influence</p>		<p>APG participant family member: "I remember the first parent meeting that we went to. Walking in and thinking these parents are just crazy—they're all laughing and, you know, joking, and everything seems fine. Can't you see that we have a crisis on our hands?" (father of a 19-year-old woman, in recovery for 4 years)</p>
<p>Peer narratives</p>		<p>APG participant: "How do I have fun sober? If it weren't fun to be sober, if I weren't having a good time, I would... It's not like the option to go get high is gone." (18-year-old man, in recovery for 2.5 years)</p>

(continues)

TABLE 1 Three Theoretical Frameworks, the Associated APG Elements, and the Associated Qualitative Evidence in the Form of APG Participants' Own Words, Continued

Theory	APG/Theoretical Elements	Qualitative Evidence
	Social learning	APG participant family member: "I realized that because he broke windows, smashed doors, broke all the walls in the house, and did all these things, the rest of the kids were doing the same thing. So at least we had a community of people that were dealing with the same problems, and we expressed ourselves, and we knew how to help him when we got home." (father of a 21-year-old man, in recovery for 3 years)
	Accountability	APG participant: "He (my sponsor) was like really blunt and straightforward with me, which I, like, appreciated. And that's kind of really what, like, saved my ass a couple of times when I was, like, wanting to relapse." (18-year-old man, in recovery for 1.5 years)
	Differential reinforcement of sobriety and prosocial values/behavior	
	Service	APG participants: "And like going into to this next year, kind of like suiting up and getting ready for what's to come. And kind of like taking my role as like someone who has time in recovery and that it's like it's not about like fixing me anymore, it's about helping others." (15-year-old female adolescent, in recovery for 1 year)
With progress, leadership roles and increased social pressure to maintain prosocial behavior	"I knew I needed to do service work and help out and give back, because I knew if I'm doing that, I'm not going to get high or drink." (21-year-old man, 3 years in recovery)	
Transtheoretical (stages of change) model (Prochaska & DiClemente, 1982; Prochaska et al., 1992)	Sense of belonging	APG participants: "Like when I was getting high, I just wanted hang out with the cool kids, you know. And this was kind of like the new sober cool kid...that was still who they were. And still had like the bad ass personalities, like the little rebels." (15-year-old female adolescent, in recovery for 1 year)
	The power of adolescent peer group influence	"I mean, I attribute a lot of it to like fellowship. I don't think I'd be in recovery if there wasn't other people in recovery with me." (20-year-old man, in recovery for 3 years)
	Precontemplation or contemplation: assessment and motivational interviewing in individual and group therapy	APG participant: "So I went through a period of a few relapses where I would or would not get caught and during this period of about, I'll say four or five months, I was getting closer to the...the other kids in group and like—I wanted to be sober. You know what I mean? But also, I wanted to drink. I was I guess in the ambivalent stage." (29-year-old woman, in recovery for 11 years)

(continues)

TABLE 1 Three Theoretical Frameworks, the Associated APG Elements, and the Associated Qualitative Evidence in the Form of APG Participants' Own Words, Continued

Theory	APG/Theoretical Elements	Qualitative Evidence
	Safe structured environment with exposure to positive social influence allows for processing ambivalence	APG participant family member: "But, you know, it was the getting out of the denial for me that was huge...And they help me sort of come to my senses, I think. And it was a process. I don't know actually when it occurred; I just know that it occurred. And even, it occurred, and then there was a process of reoccurring. I mean, it doesn't just boom. You just sort of, you keep evolving into what this, the reality of it." (father of a 23-year-old man, in recovery for 6 years)
	Preparation: sustained regular participation and bonding with the group	APG participant: "I was kind of just like, 'Screw this place. Like, I don't want to be here. I'm just going to, like, stick it out, graduate, and then start getting high again.' That was, like, my plan...I was sober-dry. I was very, very dry. But I—I went on a Colorado trip, my retreat...and that was when I really started to, like, process a lot of the stuff that was going on. I think a large part of that was I finally had a lot of the stuff out of my system and was, kind of had a clearer head on my shoulders.... I guess I was just willing to, like, give the program a try at that point.... I wasn't like, 'This is going to work. This is going to save my life,' but I was willing to, like, give it a shot." (18-year-old man, in recovery for 1.5 years)
	Retreats	
	Action: bonding with the group and real participation in therapies and 12 steps	APG participant: "I started hanging out with people that really gave a shit about me, and we talked about stuff and went out of my way to help other people." (23-year-old man, in recovery for 6 years)
	Maintenance: regular participation and service as alumni or sponsor	<p>APG participants: "This disease is very cunning, and it wants to take you back out. So you're—it'll try and convince your head of anything, you know. If I hadn't had such a low bottom. I would definitely not have stayed in here. I did not ever want to feel that way again and I had realized that if I do get high, that's what—that's all that's there for me. I mean that's how I continued, you know, get the motivation to go to meetings. To keep calling my sponsor, to do all that, you know." (18-year-old man, in recovery for 1.5 years)</p> <p>"That's like what has kept me freaking together is coming back, and going back to meetings and, you know, going to treatment centers and, you know, telling people, 'This is how my life was. This is what happened, and here I am.' Like if you want this, like here's the instructions." (23-year-old man, in recovery for 6 years)</p>

Adapted from Nash et al., 2015.

exhibit a host of internal or external behavioral health issues. APGs are designed to attract and retain resistant adolescents so that they can process their ambivalence and move forward in their stage of change (Collier et al., 2014). APG counselors create a safe but structured environment without the pressures or triggers of previous prodrug environments. Engaging and fun counselors and youth staff share their experiences, strength, and hope for recovery in a climate that accepts the adolescents no matter where they are in the process (Cates & Cummings, 2003; Collier et al., 2014). This allows room for individual development and exposure to positive prosocial behaviors so that adolescents can process their ambivalence. Previous research indicates that, when adolescents feel a sense of belonging, their reports of internalizing problems (social withdrawal, somatic complaints, anxiety, and depression) or externalizing problems (delinquent and aggressive behavior) decrease (Newman, Lohman, & Newman, 2007).

The same motivational enhancement and community building techniques utilized with APG adolescents are also employed with their parents and family members. Family members often experience their own issues with substance use, codependency, or marital problems. Members of an adolescent's family may also fall into the early stages of change themselves. They may exhibit resistance to making necessary systemic changes that support recovery. Thus, active family involvement is an integral feature of the APG and includes parent/sibling education and support groups. The connectedness and sense of universality they experience in APG support groups facilitate their own movement through the stages of change (Collier et al., 2014; Nash et al., 2015).

Recognizing that adolescents are undergoing developmental changes that may allow them to outgrow certain oppositional behaviors, the APG model requires long-term membership, lasting 6–12 months. Such a time frame permits the adolescent and members of the adolescent's family to progress through the stages of change within a drug-free context. New attitudes, cognitions, and beliefs develop naturally over time, allowing ample opportunity for adolescents to move into the preparation and action stages of change. As APG members begin to experiment with healthy behaviors, a gradual increase in the adolescent's self-efficacy for a prerecovery lifestyle appears. In addition to positive self-efficacy, researchers suggest that positive peer influence assists in the development of a positive sense of self (Maxwell, 2002; Tarrant, 2002). Many APG alumni continue participation in APG activities as sponsors and/or recovery role models (Collier et al., 2014; Nash et al., 2015). As APG adolescents move into the maintenance stage of change, their positive sense of self and self-efficacy contribute to lower rates of alcohol and drug use, heightened school performance, strengthening of healthy peer relationships, positive engagement with social–developmental tasks, and improvement in overall mental health (Mounts & Steinberg, 1995; Newman et al., 2007; Ramirez et al., 2012).

White (2012) believes that there is cause for optimism regarding adolescents' long-term prospects for recovery from

SUDs despite their higher relapse rates when compared with adults. This viewpoint is held by APG staff members who utilize motivational interviewing and positive social influence with both parents and adolescents when, and if, the adolescent moves back into relapse. Because relapse is commonly (albeit optionally) part of the recovery process, the power of positive social influence and a sense of belonging to an APG can support adolescents who return to using or engaging in other negative behavior. Consistent drug testing and the climate of accountability within the APG offer swift discovery of such indiscretions (Nash et al., 2015). Included in the APG model are provisions for behavior contracting and probationary activities with the group at large, holding the adolescent accountable (which may include admission into treatment at a higher level of care). This process, along with strong peer bonding, facilitates the adolescent's reentry from relapse into the preparation or action stages (Collier et al., 2014; Nash et al., 2015).

SUMMARY OF THEORETICAL INFLUENCES ON ADOLESCENT SUD RECOVERY

Figure 2 visually depicts the three theoretical frameworks described in this article. To achieve sustained recovery from SUD, all of the adolescents' primary ecological contexts

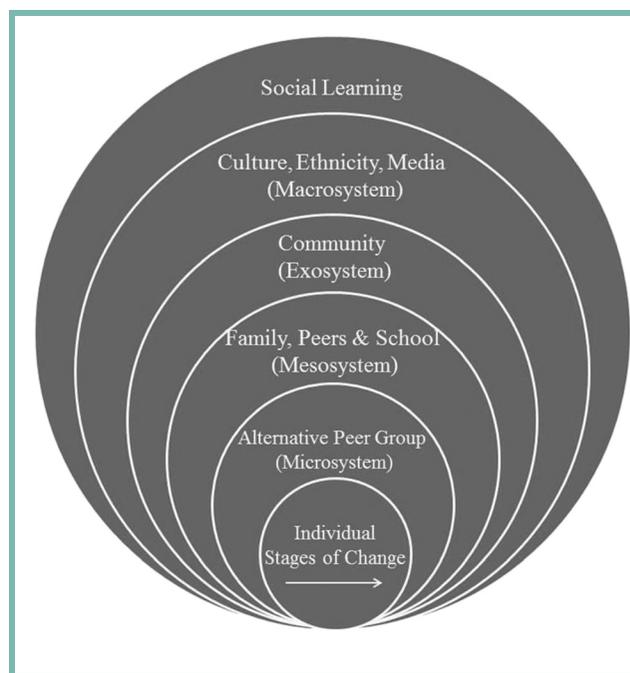


Figure 2. Visual representation of the three theoretical frameworks utilized to sustain recovery in an Alternative Peer Group beginning with Bronfenbrenner's bioecological theory (Bronfenbrenner, 1994; Bronfenbrenner & Evans, 2000), social learning theory (Akers, 1973; Bandura, 1969), and transtheoretical (stages of change) theory (Prochaska & DiClemente, 1982; Prochaska et al., 1992).

must be engaged over extended periods (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Morris, 2007). Sustained immersion in counseling and structured fun activities lead to bonding with positive peers (Bronfenbrenner & Morris, 2007). The powerful social influence of recovery role models facilitates development of prosocial attitudes and positive coping skills, leading to self-efficacy for personal recovery (Bandura, 1969). Gradually, the adolescent internalizes the language and cognitive processes of recovery (Akers et al., 1979). The combination of all these sources of influence over time move the adolescent along the stages of behavior change, resulting in the adoption of a new personal identity and healthy lifestyle and long-term recovery (Akers et al., 1979; Bronfenbrenner & Morris, 2007; Norcross et al., 2011; Prochaska & DiClemente, 1982).

DISCUSSION

Treating adolescents with SUD is challenging for multiple reasons. SUD-affected adolescents are more likely than their adult counterparts to be polysubstance abusers, to have comorbid mental health issues, and to enter treatment with poor internal motivation for changing their behavior (Black & Chung, 2014; Winters & Kaminer, 2011). Despite the proliferation of developmentally appropriate treatment programs, only a small percentage of treated adolescents will achieve sobriety after a single treatment episode (Black & Chung, 2014; Winters & Kaminer, 2011). Furthermore, compared with adults, adolescents are more likely to relapse after treatment because of social pressure than adults are, at a rate of 70% versus 46%, respectively (Ramo & Brown, 2008). Current adolescent SUD treatment programs experience high attrition rates, and although adolescents who complete treatment show low to moderate changes in substance use, these modest treatment gains tend to fade rapidly (Black & Chung, 2014; Winters et al., 2011). A review of published treatment outcome studies revealed significant variations in the duration and dose of treatment, and few studies include long-term outcomes (follow-up beyond 1 year) (White, 2012).

SAMHSA's working definition of recovery from mental health problems and/or SUD is "a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential." Application of this operational definition to adolescents and youth is still under discussion, but consensus exists that resilience and peer support are essential components of recovery (Sheedy, Whitter, & Chin, 2013). Although posttreatment involvement in 12-step support groups is associated with better outcomes, adolescents participate in mutual support groups at much lower rates than their adult counterparts (Kelly, Yeterian, & Myers, 2008; White, 2008). One barrier to their participation is the low ratio of adolescent-to-adult group members in local meetings. This age discrepancy is reported to limit adolescents' ability to identify and bond with other adult members (Kelly et al., 2008; White, 2008). However, adolescents who attend groups with similar-aged members attend more often, participate more fully, and have

better long-term outcomes (Kelly, Myers, & Brown, 2005). The APG model facilitates strong relational ties between recovering youth role models and newly admitted adolescents with no desire to change behaviors. Over time, the recovering youth role models pass on the value of 12-step involvement. In fact, of APG alumni interviewed in the first author's APG ethnography, all subjects except one reported current regular meeting attendance. The one who did not currently attend meetings did so for 5 years and maintains close relationships with his recovering peers (Nash, 2013; Nash et al., 2015). Thus, APGs facilitate young participants' motivation for recovery by creating conditions that support their experience of autonomy, competence, and relatedness. Self-determination theory argues that these conditions foster the highest motivation and engagement in activities and purports that social contexts devoid of these conditions may have a detrimental impact on wellness (Ryan & Deci, 2000).

The APG model originated more than 40 years ago in Houston and has since evolved to form a collaborative network of professional, community, and peer support services (including treatment facilities, faith communities, and recovery schools) to help adolescents engage in a long-term trajectory of recovery (Cates & Cummings, 2003; Collier et al., 2014; Morrison & Bailey, 2011). The APG model aligns well with the values and principles of chronic care, as embodied by Wagner's Chronic Care model as well as by the ROSC; but to date, very little is known about best practice ROSC models for youth (Bodenheimer, Wagner, & Grumbach, 2002; Coleman, Austin, Brach, & Wagner, 2009; Sheedy et al., 2013; White, Evans, Ali, Achara-Abrahams, & King, 2009). Although reporting 2-year sobriety rates greater than 88% for adolescents who complete the program, APGs have never been the subject of a clinical trial and remain relatively unknown in the scientific community (Collier et al., 2014).

Plans are underway to collaborate with young people in recovery to develop and pilot recovery-oriented research methods with one Houston APG. The results of this pilot study will lay the groundwork for a program of client-centered outcomes research to establish the clinical effectiveness of the APG and other youth recovery support models. The ultimate goal of this program of research is to disseminate the model (and cultural variations) to improve outcomes for adolescents across the nation. In addition, an association for APGs recently formed in Houston to help define the common objectives and best practices for the model (Association of Alternative Peer Groups, 2015). Currently, there are four APGs operating in greater Houston, all of which vary in their menu of services but all have in common the key elements and theoretical underpinnings of a promising adolescent ROSC.

Acknowledgment: The authors wish to thank the clients and staff of Teen and Family Services for their welcome and support.

REFERENCES

Akers, N. G. (1973). *Deviant behavior: A social learning approach*. Belmont, CA: Wadsworth.

- Akers, R. L., Krohn, M. D., Lanza-Kaduce, L., & Radosevich, M. (1979). Social learning and deviant behavior: A specific test of a general theory. *American Sociological Review*, 44(4), 636–655.
- Association of Alternative Peer Groups. (2015). *Home page*. Retrieved from <http://www.aapg-recovery.com/>
- Bandura, A. (1969). Social-learning theory of identificatory processes. *Handbook of Socialization Theory and Research*, 213, 262.
- Black, J. J., & Chung, T. (2014). Mechanisms of change in adolescent substance use treatment: How does treatment work? *Substance abuse*, 35(4), 344–351.
- Bodenheimer, T., Wagner, E. H., & Grumbach, K. (2002). Improving primary care for patients with chronic illness: The chronic care model, part 2. *Journal of the American Medical Association*, 288(15), 1909–1914.
- Brannigan, R., Schackman, B. R., Falco, M., & Millman, R. B. (2004). The quality of highly regarded adolescent substance abuse treatment programs: Results of an in-depth national survey. *Archives of Pediatrics & Adolescent Medicine*, 158(9), 904–909.
- Bronfenbrenner, U. (1994). *Ecological models of human development*. In International Encyclopedia of Education (Vol. 3, 2nd ed.). Oxford, England: Elsevier. Reprinted in: Gauvain, M., & Cole, M. (Eds.). (1993). *Readings on the development of children* (2nd ed., pp. 37–43). New York, NY: Freeman. Retrieved from <http://www.psy.cmu.edu/~sieglar/35bronfenbrenner94.pdf>
- Bronfenbrenner, U., & Evans, G. (2000). Developmental science in the 21st century: Emerging questions, theoretical models, research designs and empirical findings. *Social Development*, 9, 115–125.
- Bronfenbrenner, U., & Morris, P. A. (2007). The bioecological model of human development. *Handbook of child psychology* (p. 14). Wiley Online Library. doi:10.1002/9780470147658.chpsy0114
- Cates, J. C., & Cummings, J. (2003). *Recovering our children: A handbook for parents of young people in early recovery*. New York, NY: Writer's Club Press.
- Chung, T., & Maisto, S. A. (2006). Relapse to alcohol and other drug use in treated adolescents: Review and reconsideration of relapse as a change point in clinical course. *Clinical Psychology Review*, 26(2), 149–161. doi:org/10.1016/j.cpr.2005.11.004
- Coleman, K., Austin, B. T., Brach, C., & Wagner, E. H. (2009). Evidence on the chronic care model in the new millennium. *Health Affairs*, 28(1), 75–85. doi:10.1377/hlthaff.28.1.75
- Collier, C., Hilliker, R., & Onwuegbuzie, A. (2014). Alternative peer group: A model for youth recovery. *Journal of Groups in Addiction & Recovery*, 9(1), 40–53. doi:10.1080/1556035X.2013.836899
- Cruz, E. V., & Higginbottom, G. (2013). The use of focused ethnography in nursing research. *Nurse Researcher*, 20(4), 36–43. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2012024331&site=ehost-live>
- Dennis, M. L., Dawud-Noursi, S., Muck, R. D., & McDermeit, M. (2003). The need for developing & evaluating adolescent treatment models. In S. J. Stevens & A. R. Morral (Eds.), *Adolescent substance abuse treatment in the united states: Exemplary models from a national evaluation study* (pp. 3–26). New York, NY: Routledge.
- Engelbreton, J. (2011). Clinically applied medical ethnography: Relevance to cultural competence in patient care. *The Nursing Clinics of North America*, 46(2), 145–154. doi:10.1016/j.cnur.2011.02.002
- Gardner, M., & Steinberg, L. (2005). Peer influence on risk taking, risk preference, and risky decision making in adolescence and adulthood: An experimental study. *Developmental Psychology*, 41(4), 625–635.
- Johnston, L. D., O'Malley, P. M., Miech, R. A., Bachman, J. G., & Schulenberg, J. E. (2014). *Monitoring the future national results on drug use: 1975–2013: Overview, key findings on adolescent drug use*. Ann Arbor, MI: University of Michigan Institute for Social Research.
- Kaminer, Y., & Godley, M. (2010). From assessment reactivity to aftercare for adolescent substance abuse: Are we there yet? *Child and Adolescent Psychiatric Clinics of North America*, 19(3), 577–590. doi:10.1016/j.chc.2010.03.009
- Kelly, J. F., Myers, M. G., & Brown, S. A. (2005). The effects of age composition of 12-step groups on adolescent 12-step participation and substance use outcome. *Journal of Child & Adolescent Substance Abuse*, 15(1), 63–72. doi:10.1300/J029v15n01_05
- Kelly, J. F., Yeterian, J., & Myers, M. G. (2008). Treatment staff referrals, participation expectations, and perceived benefits and barriers to adolescent involvement in 12-step groups. *Alcoholism Treatment Quarterly*, 26(4). doi:10.1080/07347320802347053
- Laudet, A. B., Flaherty, M. T., & Langer, D. (2009). *Building the science of recovery*. (). Pittsburgh, PA: Northeast Addiction Technology Transfer Center.
- Maxwell, K. (2002). Friends: The role of peer influence across adolescent risk behaviors. *Journal of Youth and Adolescence*, 31(4), 267–277. doi:10.1023/A:1015493316865
- Mee-Lee, D., Shulman, G. D., Fishman, M. J., Gastfriend, M. J., & Griffith, J. H. (2007). Adolescent patient placement criteria. In American Society of Addiction Medicine (Ed.), *ASAM patient placement criteria for the treatment of substance-related disorders* (2nd rev. ed., pp. 177–204). Chevy Chase, MD: American Society of Addiction Medicine Inc.
- Morrison, C., & Bailey, C. (2011). The alternative peer group: A recovery model for teens and young adults. *Recovery Today Online*.
- Mounts, N. S., & Steinberg, L. (1995). An ecological analysis of peer influence on adolescent grade point average and drug use. *Developmental Psychology*, 31(6), 915–922.
- Nash, A. J. (January 1, 2013). The alternative peer group: What can “winners” from this program teach us about recovery from adolescent substance use disorder? *Texas Medical Center Dissertations (via ProQuest)*. Paper AA13574408. <http://digitalcommons.library.tmc.edu/dissertations/AA13574408>
- Nash, A. J., Marcus, M. T., Engelbreton, J. C., & Bukstein, O. G. (2015). Recovery from adolescent substance use disorder: Young people in recovery describe the process and keys to success in an alternative peer group. *Journal of Groups in Addiction & Recovery*, 10(4). doi:10.1080/1556035X.2015.1089805
- National Institute on Drug Abuse. (2012). *Principles of adolescent substance use disorder treatment: Research based guide* (<http://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/introduction> ed.) NIDA. Retrieved from <http://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/acknowledgements>
- Newman, B. M., Lohman, B. J., & Newman, P. R. (2007). Peer group membership and a sense of belonging: Their relationship to adolescent behavior problems. *Adolescence*, 42(166), 241–263.
- Norcross, J. C., Krebs, P. M., & Prochaska, J. O. (2011). Stages of change. *Journal of Clinical Psychology*, 67(2), 143–154. doi:10.1002/jclp.20758
- O'Brien, S. F., & Bierman, K. L. (1988). Conceptions and perceived influence of peer groups: Interviews with preadolescents and adolescents. *Child Development*, 59(5), 1360–1365. Retrieved from <http://www.jstor.org/stable/1130498>
- Perry, J. L., Joseph, J. E., Jiang, Y., Zimmerman, R. S., Kelly, T. H., Darna, M., ... Bardo, M. T. (2011). Prefrontal cortex and drug abuse vulnerability: Translation to prevention and treatment interventions. *Brain Research Reviews*, 65(2), 124–149. doi:10.1016/j.brainresrev.2010.09.001
- Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice*, 19(3), 276–287. doi:10.1037/h0088437
- Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51(3), 390–395. doi:10.1037/0022-006X.51.3.390
- Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change. Applications to addictive behaviors. *The American Psychologist*, 47(9), 1102–1114.
- Ramirez, R., Hinman, A., Sterling, S., Weisner, C., & Campbell, C. (2012). Peer influences on adolescent alcohol and other drug use outcomes. *Journal of Nursing Scholarship*, 44(1), 36–44. doi:10.1111/j.1547-5069.2011.01437.x
- Ramo, D. E., & Brown, S. A. (2008). Classes of substance abuse relapse situations: A comparison of adolescents and adults. *Psychology of Addictive Behaviors*, 22(3), 372–379. doi:10.1037/0893-164X.22.3.372

- Rochat, R., Rossiter, A., Nunley, E., Bahavar, S., Ferraro, K, MacPherson, C., & Basinger, S. (2011). *Alternative peer groups: Are they effective?* Research presented at the Adolescent High Risk Symposium, Houston, TX.
- Romer, D. (2010). Adolescent risk taking, impulsivity, and brain development: Implications for prevention. *Developmental Psychobiology*, 52(3), 263–276.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *The American Psychologist*, 55(1), 68–78. doi:10.1037/0003-066X.55.1.68
- Schulenberg, J. E. (2006). Understanding the multiple contexts of adolescent risky behavior and positive development: Advances and future directions. *Applied Developmental Science*, 10(2), 107–113.
- Schulenberg, J. E., & Maggs, J. L. (2002). A developmental perspective on alcohol use and heavy drinking during adolescence and the transition to young adulthood. *Journal of Studies on Alcohol*, 14(1), 54–70. Retrieved from <http://search.ebscohost.com.ezproxyhost.library.tmc.edu/login.aspx?direct=true&db=eric&AN=EJ648544&site=ehost-live>
- Sheedy, C., Whitter, M., & Chin, B. (2013). *SAMHSA national leadership summit on youth recovery meeting report* (No. HHSS280201100002C). Bringing Recovery Supports to Scale Technical Assistance Center Strategy (BRSS TACS).
- Substance Abuse and Mental Health Services Administration. (2009). *Designing a recovery-oriented care model for adolescents and transition age youth with substance use or co-occurring mental health disorders*. Rockville, MD: Department of Health and Human Services.
- Substance Abuse and Mental Health Services Administration. (2014). *Results from the 2013 national survey on drug use and health: Summary of national findings* (No. NSDUH Series H-48, HHS Publication No. (SMA) 14-4863.). Rockville, MD: Author.
- Substance Abuse and Mental Health Services Administration. (2015). *Recovery and recovery support*. Retrieved from <http://www.samhsa.gov/recovery>
- Tarrant, M. (2002). Adolescent peer groups and social identity. *Social Development*, 11(1), 110–123. doi:10.1111/1467-9507.00189
- Teen and Family Services. (2014). *Home page*. Retrieved from <http://www.teenandfamilyservices.org>
- Tudge, J. R. H., Mokrova, I., Hatfield, B. E., & Karnik, R. B. (2009). Uses and misuses of Bronfenbrenner's bioecological theory of human development. *Journal of Family Theory & Review*, 1, 198–210. doi:10.1111/j.1756-2589.2009.00026.x
- Wagner, E. F. (2008). Developmentally informed research on the effectiveness of clinical trials: A primer for assessing how developmental issues may influence treatment responses among adolescents with alcohol use problems. *Pediatrics*, 121(Suppl. 4), S337–S347. doi:10.1542/peds.2007-2243F 2008;121;S337-S347
- White, W. L. (2008). *Adolescents, young adults and recovery support groups: Science-grounded principles for probation officers*. Retrieved from <http://www.williamwhitepapers.com/pr/Adolescents & Recovery Support Groups.pdf>
- White, W. L. (2012). *Recovery/remission from substance use disorders: An analysis of reported outcomes in 415 scientific studies*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Intellectual Disability Services and Northeast Addiction Technology Transfer Center.
- White, W. L., Evans, A. C., Ali, S., Achara-Abrahams, I., & King, J. (2009). *The recovery revolution: Will it include children, adolescents, and transition age youth?*. Philadelphia, PA: Department of Behavioral Health and Mental Retardation Services. Retrieved from <http://www.williamwhitepapers.com/pr/2009RecoveryRevolutionChildren%26Adolescents.pdf>
- Winters, K., & Kaminer, Y. (2011). Adolescent behavioral change: Process and outcomes. In Y. Kaminer & K. C. Winters (Eds.), *Clinical manual of adolescent substance abuse treatment* (pp. 143–161). Arlington, VA: American Psychiatric Publishing. Retrieved from <http://ovidsp.ovid.com.ezproxyhost.library.tmc.edu/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=psyc6&AN=2010-21811-006; http://ca3cx5qj7w.search.serialssolutions.com/?sid=OVID:PsycINFO+%3C2008+to+June+Week+2+2011%3E&genre=article&id=pmid&id=doi&issn=&volume=&issue=&spage=143&pages=143-161&date=2011&title=&title=Adolescent+behavioral+change%3A+Process+and+outcomes.&aualast=Winters&pid=%3Cauthor%3E Winters%2C+Ken+C%3C%2Fauthor%3E&%3CAN%3E2010-21811-006%3C%2FAN%3E>
- Winters, K. C., Botzet, A. M., & Fahnhorst, T. (2011). Advances in adolescent substance abuse treatment. *Current Psychiatry Reports*, 13(5), 416–421. doi:10.1007/s11920-011-0214-2