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Exploring recovery capital among adolescents in an alternative peer group

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ABSTRACT

Background: Recovery support models (RSMs) integrate peer supports and continuing care to promote sustained recovery for adolescents with substance use disorder. RSMs aim to build recovery capital (RC), the personal, social, and environmental resources required to sustain recovery. The Alternative Peer Group (APG) is an RSM that integrates pro-recovery peers and social activities into clinical practice. APGs aim to build adolescents' RC and help them establish pro-recovery social networks. The Recovery Capital for Adolescents Model (RCAM) is a proposed framework for identifying assets to enhance and barriers to address in supporting adolescents' recovery. The RCAM has never been directly applied in APG research so little is known about the process of building RC while participating in an APG.

Methods: This study is a secondary analysis of semi-structured interviews with APG participants. Using a deductive analytic approach, the RCAM was systematically applied to participants' narratives to examine the model's utility for identifying recovery barriers and resources that promote adolescent recovery.

Findings: This study's findings confirmed the RCAM's utility for identifying specific recovery assets and barriers to recovery faced by adolescents. APG participants' narratives generally reflected the RCAMs RC domains (financial, human, social and community) as proposed and added details to refine the model. Specific strategies employed by the APG to enhance RC and address recovery barriers are presented and illustrated with qualitative exemplars.

Conclusions: The RCAM is a useful model for identifying the multiple, interrelated factors inherent to adolescents' recovery experience and potential pathways of RC resource-building.

1. Introduction

The social and personal burden of substance use disorders (SUDs) is a leading cause of prolonged disability (Whiteford et al., 2013). On average, the onset of adult addiction begins during adolescence (National Center on Addiction and Substance Abuse, 2011). Helping adolescents with SUD achieve stable recovery is a critical public health issue given that about 1.2 million adolescents met criteria for an SUD in 2017 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2017). Successful adolescent recovery implies stable remission, improvements in mental health symptoms and relationships, increased productivity and contribution in school or work, and enhanced quality of life (Kelly and Hoeppner, 2015; Hennessy et al., 2017). A change in social networks from high-risk peers to low-risk peers (Best et al., 2016) is critical for supporting recovery since adolescents typically return to use in the context of their substance-using peers (Chung et al., 2015). This social network change often results in a transition of social identity from "substance user" to "non-user" or "person in recovery" (Best et al., 2016).

1.1. Recovery support models (RSMs)

Adolescent recovery support models (RSMs) seek to integrate peer supports and continuing care to promote sustained recovery for adolescents. Examples of RSMs include recovery high schools (RHSs), youth-oriented mutual help groups, and alternative peer groups (APGs) (Finch et al., 2014; Yule and Kelly, 2018; Collier et al., 2014; Kelly et al., 2010). To be effective, adolescent RSMs should be developmentally appropriate, build recovery coping skills, include families, and provide an avenue for establishing pro-recovery social networks (SAMHSA, 2009; McKay, 2017; Yule and Kelly, 2018; Nash and Collier, 2016). An important role for RSMs is to facilitate experiences that are more attractive and rewarding than substance use (McKay, 2017). Beyond clinical stabilization, these models provide continuing care,

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promote resilience, and build recovery capital (RC), the personal, social, and environmental resources required to sustain recovery (Hennessy, 2017; Best and Laudet, 2010). Research on RSMs' ability to generate RC is scant but emerging, and supports the benefits of RSMs in promoting the accrual of RC and ultimately recovery for adolescent participants (Yule and Kelly, 2018; Kelly, 2017; Tanner-Smith et al., 2018).

1.2. The Alternative Peer Group (APG)

The APG is a theoretically derived RSM that promotes accrual of RC for SUD-affected adolescents by integrating peer recovery role models and social activities into clinical practice (Nash and Collier, 2016; Association of Alternative Peer Groups, 2017). APGs provide education, recovery support, and safe adolescent-friendly environments and activities (Collier et al., 2014). A primary goal of APGs is to facilitate the establishment of new pro-recovery social networks so adolescents will begin to value recovery over substance use. APGs vary in the level of clinical services they provide, but those that do not directly provide clinical services actively link adolescents to them. Although some are free, most APGs require some form of payment for services. Many offer scholarships, and some services can be covered by families' insurance. APGs provide linkages to other recovery support services like community 12-step meetings and educational support such as RHSs if they are available. In communities with strong APG/RHS linkages, an APG referral is required for RHS attendance. Although the APG model is well-established APG research is only emerging (Nash et al., 2019, 2015; Nash and Collier, 2016). Preliminary unpublished research found 89–92% sobriety rates among youth who completed an intensive outpatient program using the APG program (Rochat et al., 2011).

1.3. Recovery capital

Recovery capital (RC) is the availability and accumulation of resources one can access to support his/her recovery and incorporates individual-level, inter-individual-level, and community-level resources (Cloud and Granfield, 2008). The theory of RC was developed among adults, but recently was adapted to be developmentally appropriate for adolescents (Hennessy et al., 2018). The Recovery Capital for Adolescents Model (RCAM) (Fig. 1) posits that adolescent RC exists in four primary domains: (1) financial RC, e.g., tangible resources such as finances for treatment and recovery services, health insurance, transportation, and a stable living environment; (2) human RC, e.g., goals, motivation, and life skills to use towards sobriety and a life in recovery; (3) social RC, e.g., sober and supportive family, friends, and mentors; access to resources through social connections; and positive social activities; and (4) community RC, e.g., treatment services (mental health and SUD), RSMs (APGs, RHSs, and 12-step meetings), and cultural capital (e.g., recovery group membership and beliefs, values, and norms arising from that membership). Thus, the APG model is an example of a community RC resource in that it exists (or not) in one's community to equip youth to meet the demands of recovery. As a community RC resource, APGs aim to build human RC by working with youth to develop emotion regulation and life skills for goal attainment. By providing a safe and sober peer environment with adult supervision, the APG also seeks to build social RC among adolescents by facilitating fun and positive activities and new social networks among group members.

Although explored extensively among adults, RC has been empirically examined in only a few studies focused on adolescents (Hennessy, 2018) and has never been directly applied to studies of youth in APGs. Thus, much about the process of building RC while participating in an APG remains unknown. The purpose of this study was to explore qualitative interview data from a previous study to test the RCAMS utility for identifying barriers and/or resources that promote adolescent recovery.

2. Methods

2.1. Design

This qualitative study involved secondary analysis of semi-structured interview data collected in a mixed methods pilot study that aimed to test the feasibility of measuring recovery in active APG participants and explored adolescents' perceptions of the study, the APG, and the 12-steps. Methods of that mixed-methods pilot study were described elsewhere (Nash et al., 2019). Though that study did not specifically explore RC, the interviews contained rich data on APG participants' substance use and recovery experiences, providing a storehouse

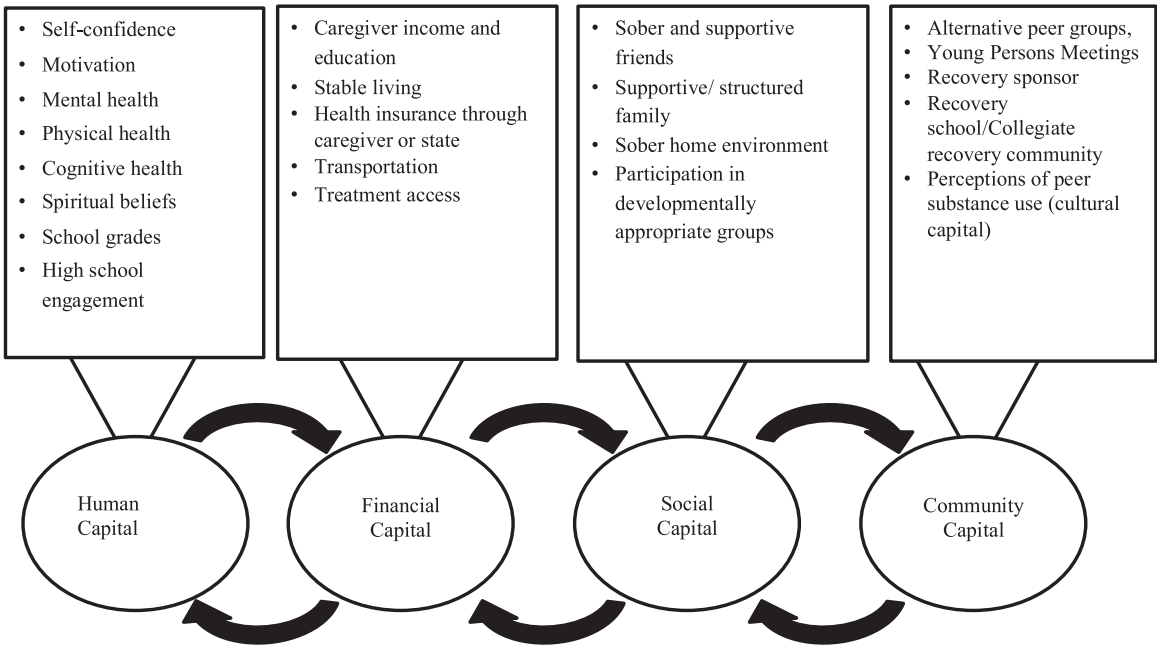

Fig. 1. Original Recovery Capital for Adolescents Model as proposed by Hennessy et al. (2018).
Note: The black arrows represent the generation of growth capital through the synergy of the other capital domains.

Table 1
Participant demographics, symptom severity and recovery support model (RSM) participation status.

Demographics				Symptom severity			RSM Participation Status				
No.	Gender	Age	Race	MH	SU	Treatment Episodes	# APGs Attended	Duration (days)	APG status*	RHS	‡ Recovery identity
1	M	15	1	2	3	1	1	539	A	Y	Y
2	M	17	4	1	2	1	1	481	A	N	N
3	M	17	2	4	4	1	3	160	A	Y	Y
4	M	17	1	4	4	7	2	229 [NA]	L	N	N
5	F	19	4	1	3	2	2	458 [NA]	L	N	N
6	M	15	4	0	2	0	1	347	A	N	Y
7	M	16	4	4	3	3	1	620	A	Y	Y
8	F	14	4	1	2	0	1	643	A	Y	N
9	F	16	4	2	4	4	1	416	A	Y	Y
10	M	17	5	2	4	1	1	359	AL	Y	Y
11	M	18	5	1	2	0	1	1073	AL	Y	Y
12	M	18	4	4	3	3	1	325	A	Y	Y

Race: 1 = Hispanic; 2 = Black; 3 = Asian; 4 = White; 5 = Mixed.
Symptom severity: counselor rated upon admission to APG (range from 0 (no real problem) to 4 (extreme problem).
Duration: days from current APG admission to interview *(NA = Participant not included in calculation of mean duration since left APG)*.
APG status: *A = Actively being treated in APG; L = left APG dissatisfied or actively using substances; AL = APG alumnus actively participating.
‡ Participant self-identifies as being "in recovery" (Y) or not (N).

for identifying RC elements. The first author's Institutional Review Board granted permission for the original mixed methods study and for this secondary analysis. Participants gave written informed consent/assent.

2.2. Setting

Participants of the original pilot study were recruited from one APG program with three locations in a south-central state. This APG program offered a supervised space for clients to gather with friends after school and during the summer; teen 12-step meetings; weekend sober social functions; adventure retreats; and service projects. Young adult recovery coaches supervised and mentored adolescents, modeling the APG values and behaviors of "enthusiastic sobriety." Licensed professionals provided clinical services, including case coordination and counseling. Parents were required to attend weekly family and parent group meetings to receive training and peer recovery support along with their child. This APG also provided linkages to local treatment facilities, RHSs, and outside 12-step meetings.

2.3. Data collection and preparation

The first author conducted semi-structured interviews with APG participants who were enrolled in the pilot study and volunteered for interviews. Interview guides included broad questions to elicit their experience with SUD and recovery and their perceptions of how APGs and the 12-steps promote or hinder recovery. Interviews ranging from 30 min to 1.5 h. were professionally transcribed verbatim, and the transcripts were uploaded into ATLAS.ti8 for storage and organization (Friese, 2017).

2.4. Analysis

Because this study aimed to examine a theory, a deductive coding approach was employed to a) determine whether and/or how interviewee's experience fit the RCAM model; and b) identify examples of resources within the four RC domains from their narratives (Bernard et al., 2016; Miles et al., 2014; Green and Thorogood, 2018). Three researchers collaborated to develop a list of a priori codes with definitions to represent the RC domains in the model (financial, human, social, community) (Bernard et al., 2016). As the data were explored, the team refined the code definitions and added a code for barriers to RC since it emerged as a prominent theme and was supported by recovery literature (Brewer et al., 2017; Wisdom et al., 2011; Nash et al., 2015). The researchers independently coded three interviews, then discussed discrepancies and independently re-coded the same interviews until a high degree of reliability between coders was achieved (intra-class correlation coefficient = .846, 95% confidence interval [.256, .863], $p < .001$). The remaining interviews were divided among the researchers for independent coding, followed by discussions to achieve consensus (Bernard et al., 2016). After all coding was completed, a report was generated listing all quotes that represented each RC domain (Friese, 2017).

The framework method of content analysis was then used to facilitate exploration of the range of data within and across the RC domains (Green and Thorogood, 2018). Beginning with financial RC, each researcher independently explored the report for patterns and themes on how financial RC fit participants' APG experience and if/how the patterns/themes connected with other RC domains, displaying each theme with exemplars on a matrix (Bernard et al., 2016; Miles et al., 2014). The researchers then reviewed each other's matrices and discussed the themes until consensus was achieved. This process was repeated until each RC domain was explored and discussed, with attention to confirming or revising the model (Miles et al., 2014). Measures to assure rigor included inter-coder reliability checks, assuring consensus in conceptual definitions and themes, examination of negative case evidence, and researcher triangulation. All team members had qualitative research experience, knowledge of the adolescent RSM literature, and varying degrees of professional and research familiarity with recovery capital and APGs (Miles et al., 2014; O'Brien et al., 2014).

3. Findings

Twelve youth, ages 15–19 (M age = 16.5 years), participated in interviews (see Table 1). Overall, APG participants reported drawing upon RC resources that fit within the RCAM domains, but unique subcategories also emerged. Themes that emerged for each RC domain are listed below, and qualitative exemplars are provided in Table 2.

3.1. Financial RC

As minors, participants primarily referred to their caregivers' resources when speaking of financial resources that increased their recovery options. A lack of youth agency in accessing treatment services was a prominent theme that emerged. Participants universally reported initial resistance to attending treatment or the APG. Mental health

Table 2
Participant Responses, grouped by Recovery Capital Themes and Subthemes.

Recovery Capital Element	Qualitative support for theme (participant number in parentheses)
Financial recovery capital	
• Lack of youth agency	*(7) I went to a mental hospital for like a day, and my mom took me out whenever I first got into [the APG]. But I went to [residential treatment] for 78 days and I was all like, "I want to be sober and like drop everything," like, "Do everything the right way." And I it worked ever since.*
• Sustained exposure to treatment/APG	*(6) So she put me in rehab…: And—and then I got caught again. So then I got put in the APG.*
• Continuum of care needed	
Community recovery capital	
• Pathways to CC	*(1) But, I had a giant just like mental breakdown, and so, they're [police] like, "You need the psych hospital…So, they sent me to psych, um, and then, after I kind of calmed down, uh, I talked to the people there and we were like, "I'm a drug addict." You know, like that's the base of my problems. Um, and so, they're like, "Would you be willing to go to rehab?" And, I'm like yes, because at that point, I was just done with this.*
• Linkages among CC services	*(10) So, I'd go to IOP. I'd wake up early. I'd stay there 'til four, get back and go straight to [APG], and be at [APG] 'til, um, about nine. And—but I had a ton of structure, and that helped a lot.*
	(6) So it takes up a lot of time in your week, so you have less free time.
• SUD treatment	*(9) I wasn't going to [Inpatient treatment] willingly at all. But I went. And I like really got like the help I needed there. Like, the counselors there like genuinely cared about me. I like actually got something out of it. And, so then after that I went through the PHP and IOP programs.*
• APG	*(12): So like it's really hard for like kids my age to like get sober and no one else is sober or even tried to get sober. So it's really nice to have that aspect of like relatability, and also the accountability that you get…But not just by the staff, but like peer accountability.*
• RHS	*(1): And, [the RHS] has the fellowship, has the staff that's always there for you…it's like you, you don't have to face the BS of public school.*
• Cultural capital: "group"	*(1): But, what really affects…peoples' sobriety is not the APG. What affects peoples' sobriety is the group itself.*
	(7) This is awesome," like, "I get to have a lot of fun." Like, "I'm doing the right things." Everyone was just healthy whenever I came back, and we were all working on ourselves, each giving feedback, a really close community. So I loved [the APG].
• Cultural capital: "12-Steps"	*(8) … because like, I was miserable like, during my youth and like, for the first six months. Then when I started like, working my program it like, changed. And I was actually happy.*
	(10) So, I was like, "Okay. I'll just give this a chance." So, I put in the effort, and I saw a little bit of result, and it just slowly built.
Human recovery capital	
• **Motivation**	
• Initial: Avoiding consequences	*(3) And he [sponsor] was like, "You have to really want this. If you don't, you will die." And I was like, "Holy fuck, this is serious," and that kind of sparked my brain, and that's when I started taking it serious.*
	(8) And like, I stayed sober after I got sent to [APG} just because I didn't want to get sent to treatment.
• Later: Personal benefits and goals (sober or not)	*(1) …and really enjoy the fact that I'm sober… You know, like, realize that I don't need drugs to have fun.*
	(5) I don't want to live my life like that. I don't want to have junkie friends. I want to be able to go out and be successful but still be able to go do my own things that I want. Like, I still want to smoke weed… So, you're going to work for it. And you're also going to go to school.
• **Improved symptoms and behavior**	*(10) And now like, since I started like, letting unhealthy people go and looking at myself and try to be a better person, more patient, less angry, you know? More giving, more, you know, whatever.*
	(9) After 3 months I had a lot of trust in my family back. I, I felt better. I felt a lot like healthier, and stronger, and better. My emotional state was better… my social anxiety got a lot better over time. It took about five months.
• **Sobriety**	*(2) And then I had six months sober. I've been in [APG] for like a year and almost a half now.*
• Accomplishment	*(12) I think that's probably the best thing that's happened to me in my recovery is my relapse… I was struggling a lot with like whether I'm actually an addict or not and that showed me, like, the one opportunity I have, it wasn't planned or anything, I just ingested almost 40 pills without even thinking about it. So I can't use any substance.*
• "Addict" identity as protective	
• **Dedication to recovery service**	*(9) For me, like I love sponsoring people. I don't know, it gives me a purpose. I like now see the light at the end of the tunnel. And helping other people, like it's the best feeling for me.*
• **Social recovery capital**	
• **Genuine care of pro-recovery role models**	*(1) The great staff, the meetings that we did. People genuinely want—The biggest thing that keeps me sober…is that in recovery people genuinely care.*
• **Sober fun**	*(12) … a lot of kids don't really like it being so serious all the time, like all the deep stuff. So they like just having fun and messing around. And like having fun with kids who like don't have to get high to have fun.*
	(4) Like, sobriety is cool. You know? Show them that there can be a lot of fun to it. Because I promise you, everything that goes through these kids head is …"boring". You have to show them there's more to it.
• **Bonding and support from recovery role models**	
• Pro-recovery peers	*(9) But for me advantages of (APG) is giving me a, a very—like giving me a second family pretty much, giving me a lot of structure, and giving me a lot of accountability.*
• Sponsors	*(1): Um, and, and a week after I relapsed, I called my sponsor crying from the, from the top of the balcony about to jump off…But he got, we, we talked, and he got me down, um, and I've just been busting my butt ever since trying to avoid that happening again.*
• Recovery community	*(3) I knew that no matter what happened, how much drugs I did or, like, what bad I've done, like, there was always a place that, like, I can go to get help, you know…I didn't have to keep getting high. I didn't have to do this. I had a choice. I knew there was somewhere to go, you know.*
• **Parent/family restoration**	
• Denial → Acknowledgement	*(5) But, so, my Mom's saying like, okay, "Now I've caught her, like, multiple times like, almost not breathing. Like, I think she's doing drugs."*
• Improved parenting skills	*(10) The APG provided structure for my parents at home, and like making a home contract…She (Mom) has worked a lot on co-dependency and not enabling me or my siblings, and I see that, like working on in my family.*
• Family accord	*(8) I think it's more for the parents' sake because a lot of the parents come in thinking like, oh, it's their fault. And they learn how to like, cope with stuff. And if their child's not doing well, like, how to help them. And how to be kind of involved in their sobriety at least. My mom and my dad are like a lot closer now. And we barely get in arguments.*
Recovery capital barriers	

(*continued on next page*)

Table 2 (*continued*)

Recovery Capital Element	Qualitative support for theme (participant number in parentheses)
• **Reasons for starting AOD use become reasons for return to use**	
• Family or friend influence	*(3) I went to school and met some friends, and that's where, like, I took off pretty much with the drugs.* *(7) But no, I was smoking weed every day, because … and then I'd see my dad and I started noticing he did it. And I was all like, "It's okay for me to do this," you know?*
• Coping with distress	*(1) I was a drug dealer and in a gang for a couple years, and, um, I did a lot of things that haunt me, you know. And to cope with that, I would just live intoxicated.*
• Not ready to change	*(5) I was just trying to write stuff down that they thought they would want to hear. Because I was like, I'm not going to surrender.* *(2) But then around six months I was like, okay. I've been sober long enough that I think I can like manage. So I'm going to try to just like do a little bit. PJ*
• **Resistance to the 12-steps**	*(6) Yeah, I just like—when I first got in I didn't want to open-up to anyone. I didn't want to have to talk to anyone and just—I thought the 12 steps were going to make me do that.*
• **Relationship barriers**	
• "Unhealthy group"	*(9) whenever I joined [the APG], like, honestly, I, I did not like it…The girls in there were really mean to me, very exclusive.* *(1): The group was, we were very unhealthy. Because I've seen some of the best, goody-two-shoes kids…in group get sucked into going back out or selling drugs or doing things that are not them because of the vibe of the group.*
• Parental deception	*(2) I think the main one is just parents thinking the kids are better… or a lot of times it's like the kids convince their parents to take them out because they like convince their parents they're better.*
• **Financial barriers to effective CC**	*(3) And that's probably one of the worst rehabs to go to, honestly. Yeah. It's a lot of gang violence there —it's just a lot of unhealthy things there. There's no recovery there…it didn't work very well at all. I wanted to go to [another treatment center] but my insurance didn't pay for it.*

crises or trouble at home, school, or with the criminal justice system was the impetus for caregivers to seek treatment services on the adolescents' behalf. Most participants (75%) received psychiatric or SUD treatment services (e.g., outpatient counseling, psychiatric hospitalizations, residential/inpatient services, partial hospitalization/intensive outpatient services, or wilderness camps) (Table 1). Of those, 56% required multiple admissions at increasing levels of service (range 0–7 episodes). These placements served as referral sources to recovery support services such as APGs, RHSs, 12-step programs, or sober living homes. Eight youth attended a RHS, and all had participated in an APG, although some youth had left the APG prior to the interview. At the time of interviews, participants' mean duration of APG participation was 496 days (SD = 249.8). Long-term immersion in this continuum of treatment and wraparound services emerged as critical for participants' problem recognition and engagement in sustained recovery.

3.2. Human RC

A range of factors emerged related to personal characteristics and internal assets that provided the needed emotional resources and motivation for participants to manage non-recovery-supportive environments and achieve their recovery goals. These included finding their "true self" in recovery, increasing confidence and self-agency for recovery, and improving mental health symptoms and behavior. Effective treatment promoted growth in human capital by enhancing problem recognition, motivation, and readiness for recovery. Many participants' initial motivation centered on avoiding negative consequences like dying, being forced to return to treatment, or being expelled from the RHS. After engaging in the recovery process, experiencing the personal benefits of recovery became a key motivator (e.g., personal insights, maturity, and social and adaptive skills). Most described their educational/occupational goals or desires to live a healthier lifestyle as key motivators for ongoing recovery efforts, even if they were not sober.

Sobriety was cited throughout the interviews, often described as an accomplishment. Temporary return to use was perceived as a gift, reinforcing the continued need for working on recovery. A subset of youth discussed self-identifying as an "addict" or a person in recovery. This identity seemed self-protective, as they acknowledged the seriousness of their condition and their need for continual recovery efforts. Many discussed their dedication to ongoing active participation in RSMs and they prided themselves in serving as a leader or recovery sponsor. This was perceived as a way of expressing their gratitude and provided a sense of meaning and purpose.

3.3. Social RC

A few key themes emerged from participants' narratives regarding sober and supportive family, friends, and mentors; social connections providing access to resources; and positive social activities. Of note, most youth reported having few "real" friends prior to entering the APG. These friends were characterized as negative influences (e.g., they "got high" together and engaged in high-risk and/or criminal behaviors). Effective treatment centers were a beginning source of social capital in the form of supportive staff that served as role models and mentors. The structured APG environment offered youth an opportunity to connect with pro-recovery adults and peers who genuinely cared. Friendship with pro-recovery peers was a key factor for motivating participants to engage in recovery work. Shared histories and experiences, listening to addiction and recovery narratives, and affirmation created close bonds between APG members. These relationships provided a level of accountability and vulnerability that participants had not previously experienced and powerfully influenced participants' attitudes and beliefs about alcohol or drug (AOD) use and recovery. Negative case analysis validated this theme in that barriers to friendships (such as social exclusion by unhealthy cliques in the group) increased a few participants' resistance to engaging in the APG and recovery. Another key theme was learning to have fun while simultaneously being sober from AOD. Participants who experienced mental health or SUD relapses described how the unconditional support they received from peers and sponsors fostered their social skills such as asking for help, communicating assertively, resolving conflict, repairing relationships, and regaining trust. Others described identifying and disengaging from unhealthy relationships, alleviating feelings of shame, and increasing personal agency.

Vital social capital resources developed between youth and their parents. Participants' narratives indicated that their parents initially missed or denied the seriousness of their problems. Eventually parents recognized their child's need for extrinsic social control after repeatedly catching him/her using substances or experiencing crises (e.g. arrests, suicide attempts, overdoses, violent outbursts, etc.). Parents then sought help and forced their child into hospitals, treatment, or the APG. Youth whose parents were involved in recovery programming noticed that this involvement improved their parenting skills and empowered them to provide better structure and support for their child's recovery,

resulting in restored trust and unity in family relationships.

3.4. Community RC

Participants' narratives indicated that due in part to their financial capital, as well as to resources in their community, they had access to multiple RSMs and linkages between these programs provided scaffolding to support participants' remission and recovery. The criminal justice system and/or psychiatric services were common paths to SUD treatment and the APG or RHS. Because the APG services were provided in an atmosphere of fun and acceptance, they promoted the development of a highly connected group of peers that valued recovery over AOD use and service over self-centeredness (cultural capital). This peer group, if "healthy," became a powerful source of cultural RC. Most (67%) participants attended the RHS, another source of community capital. This city's RHS required ongoing APG participation for continued attendance. Together, the APG and RHS consumed most of the youth's time by offering activities throughout the day and evening.

These RSMs introduced youth to another source of community/cultural RC, 12-step philosophy and practices. Because of a lack of familiarity, negative stereotypes, or reluctance to work too hard, many youths initially reported resistance to the 12-steps. The influence of peers who had some time in recovery motivated youth to begin working the 12-steps with a sponsor. Often those who tried them reported finding a source of strength in the 12-steps. The cognitive process of working the steps along with the support and accountability of the 12-step community led to new insights, improvements in their mental health symptoms, and consequently, to changes in their values, behaviors, and relationships.

3.5. Barriers to RC

Participants' narratives also revealed diverse barriers to recovery and building RC that emerged both on an individual basis and via participants' interaction with their environment, often directly aligning with a particular RC domain. Some participants reported that FC barriers such as insurance restrictions obstructed their access to effective treatment. For some participants, the factors that initiated their substance use, e.g., the influence of unhealthy peers or family members who encouraged or supported substance use, instigated their return to use. Substance use was often described as a way to cope with negative emotions or other underlying mental health issues, suggesting they did not have the emotional resources to find alternative coping methods. Participants who had not yet started the recovery process—or had started and returned to substance use—discussed not being ready for change or being the "addict" rebel. That is, they recognized that continued substance use was one way to express their nonconformity and make their own decisions. Some simply enjoyed their use and did not see the consequences as severe enough to warrant stopping. Others described thinking they could handle using substances again after an initial period of sobriety.

Youth who were ready to change acknowledged that recovery was a lot of work, and at times, negative events and stressors became too much to handle. Others described mental health issues resurfacing that, if not successfully treated, would lead to recurrences of use. These experiences suggest adolescents' need for ongoing support in gaining stronger internal coping mechanisms. For others, negative perceptions of 12-step programming led to some initial reticence. Some reported their initial reluctance to engage with others in the APG group reduced their opportunity for building social RC, a barrier that was frequently removed after spending time and bonding with the group through therapeutic and fun social activities.

Maintaining contact with unhealthy peers was a common barrier before and during participation in community RSMs. The significance of accountability was a key theme. Most participants described how problematic attitudes or behaviors of certain group members, if not confronted, would lead to group discord, a lack of desire to attend the group, or even return to substance use for some. Participants unanimously asserted that an essential factor for maintaining the health of the group was APG leadership setting limits and holding the offenders accountable. A few participants described being able to continue using without being caught in certain programs that did not test for drugs or had poor quality tests. While some youth had unsupportive family members, most had families who supported their recovery but were unaware of the extent of the participants' problem. In these cases, youth openly described deceiving their family members, recognizing that they had not been ready to change. These same participants reported that their family relationships improved as their parents learned to identify risky behaviors and set effective limits.

4. Discussion

4.1. Significance of findings and implications for practice

The experience of APG participants in this study confirm the RCAM's utility for identifying barriers to or resources that promote recovery for SUD-affected adolescents. Participants' narratives generally reflect the RCAMs proposed RC domains. Consistent with the RCAM, the APG, the RHS, and 12-step meetings were key sources of community RC for study participants. Although the RCAM listed recovery sponsors as a form of community RC, participants' narratives indicated sponsors were obtained from community RC services, but they primarily served as sources of social RC because of the strength of the personal bond that developed. SUD and psychiatric treatment were important community RC services for 75% of this study's participants; however, their narratives indicated that treatment served only as the launching point for building human and social RC. These and other new findings are depicted on an enhanced RCAM (Fig. 2).

The community RC services discussed by these participants exemplify the nature and level of wraparound services required to support the long-term recovery of adolescents (National Institute on Drug Addiction (NIDA), 2014). Participation in the APG often generated a tightly knit group of pro-recovery peers. Involvement in the social norms of the APG and RHS resulted in the development of human RC, as evidenced by positive changes in their attitudes and beliefs about AOD use, their behaviors, and their social identity. From a practice perspective, ensuring that youth are aware of community resources and provided with structures (e.g., such as assertive linkages) to RSMs that are developmentally appropriate, such as those discussed here are vital steps for practitioners working with youth during their treatment and recovery (Fisher, 2014; Passetti et al., 2016).

Study participants unanimously described extensive time spent with substance-using friends prior to treatment, and most reported a subsequent change in peers after spending time in the APG. Research demonstrates that more time spent with high-risk peers is associated with poorer SUD treatment outcomes, and conversely, more time spent with low-risk peers is associated with better outcomes. Moreover, the protective effect of time spent with low-risk friends increases the longer youth were out of treatment (Eddie and Kelly, 2017). The extensive amounts of time study participants spent in the APG facilitated changes in their social networks from high-risk peers to a tightly knit group of pro-recovery peers. Although further research is needed, findings of this study suggest that long-term participation in community RC services like APGs and RHSs is a strong strategy for increasing RC and maintaining treatment gains for adolescents.

Adolescents typically lack motivation for treatment, resist recognition of the need for recovery, and have a high incidence of co-occurring disorders (Gonzales-Castaneda and Kaminer, 2016). These barriers to treatment-seeking concur with this study's findings, and consistent with the literature, these participants' caregivers or the legal system were the primary impetus for their treatment initiation (Winters et al., 2018). Although this apparent lack of adolescent agency may seem

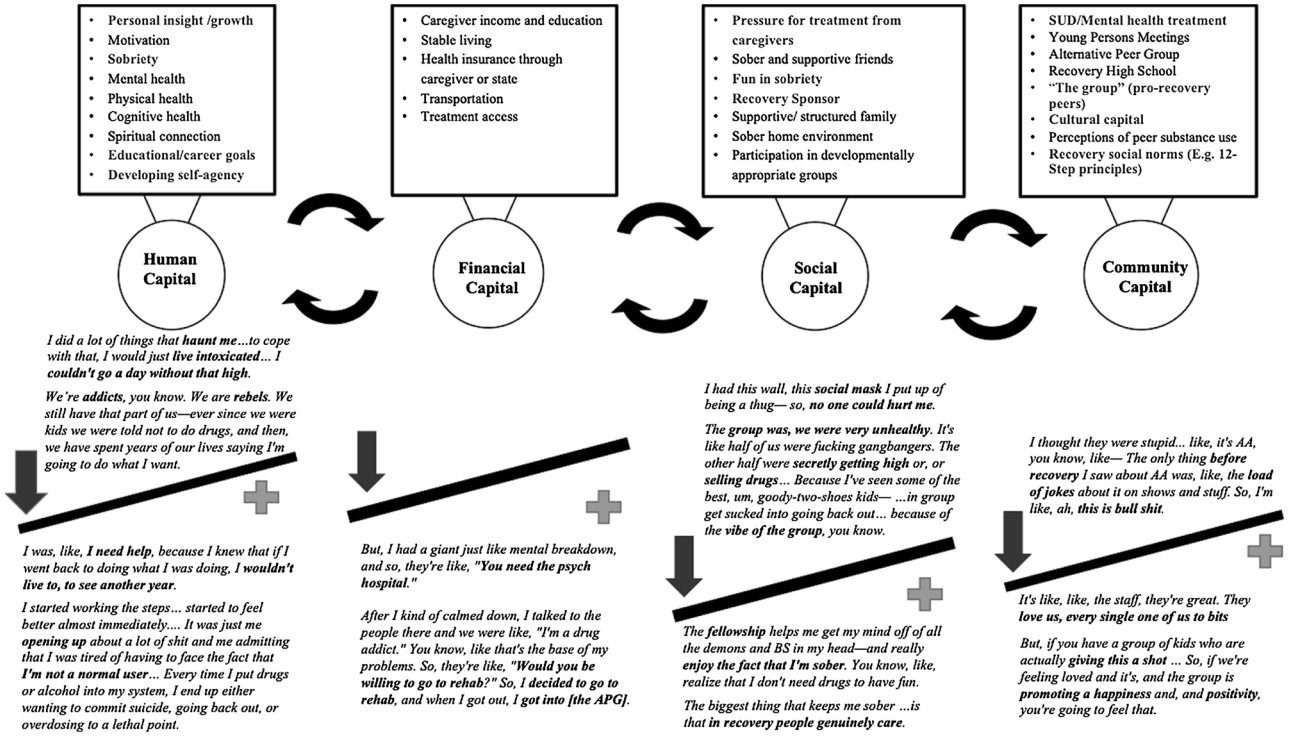

Fig. 2. Enhanced Recovery Capital for Adolescents Model with exemplars from one case.

problematic from a perspective of empowerment, the findings of this study indicate that external pressure was critical for participants' treatment initiation. Moreover, most participants indicated that time spent in the APG and RHS engendered positive peer relationships and increased their motivation. These findings concur with the literature that therapeutic and peer relationships developed in the first few months are key factors for engaging youth in treatment and maintaining treatment gains (Joe et al., 2014; Goodman et al., 2011). Findings also support the literature that mandated treatment does not diminish treatment effects and may be necessary for adolescents because of their developmental characteristics (Wolfe et al., 2013; Yeterian et al., 2013). We maintain that adequate education and support should be provided to caregivers on monitoring, limit setting and positive communication. Moreover, adolescent SUD treatment should include a continuum of treatment and long-term involvement in wraparound services that emphasize building therapeutic and pro-recovery peer relationships (Battjes et al., 2003; Mensinger et al., 2006; Joe et al., 2014).

The average number of wraparound services offered by U.S treatment centers include fewer than half of those endorsed by the NIDA model of comprehensive treatment (Paino et al., 2015). The findings of this study support the research linking wraparound services to positive client outcomes (National Institute on Drug Addiction (NIDA), 2014). Most study participants were exposed to initial treatment for relatively brief periods (range, 2 d to 4 mo.) but stayed in continuing care services for years. Given the extent of services used by these participants and their associated costs, high financial RC seems necessary for adolescents to maintain recovery. To adequately address adolescent SUD in the U.S. we must acknowledge the need for investing greater resources in supporting adolescents' recovery (Mundt et al., 2012; Kamal et al., 2017).

4.2. Strengths and limitations

Little research has examined adolescent recovery, RC, or RSMs. A strength of this study is its exploration of the narratives of adolescents who were actively participating in RSMs designed to grow RC. The findings add to the literature on adolescent RC and validate and enhance the proposed RCAM, which postulated that youth-specific supports and tailored wraparound services are necessary for this population (Hennessy et al., 2018). This study was a secondary analysis and the original study did not specifically aim to explore RC, the present study may not have captured the full range of RC resources these participants used. Furthermore, the original study was conducted with volunteer participants of one APG in one southwestern city. The circumscribed racial and geographic diversity of study participants may limit the transferability of these findings to other populations and communities.

5. Conclusions

Overall, the RCAM provided a useful model to identify factors inherent to the recovery experience among youth in APGs. Additional critical RC elements gleaned from this study's APG participants included (a) immersing in the recovery continuum long-term, (b) building self-agency, increasing insight, and problem recognition, (c) increasing social and adaptive skills, (d) commitment to education/career goals, (e) building recovery values, and (f) having fun in sobriety. The RCAM posits that financial RC from a caregiver is important; beyond that, we found that recovery efforts were often instigated via parental financial RC combined with their authority in forcing the adolescents to seek services. A potential pathway of RC resource-building emerged from participants' narratives. Human and social RC barriers often led to problematic substance use. Then, financial RC (often combined with social RC) was the impetus for change through participation in treatment programs and, later, community RC services. Continued engagement in one or more community RC services led to growth in social and human RC, often leading to further engagement in community RC, thereby supporting the dynamic nature of recovery and RC as proposed by others.

Contributors

Angela Nash conducted all interviews, directed the project, participated with the team in analysis and reporting, and submitted the

manuscript. Emily Hennessy contributed her recovery capital for adolescents' model, participated with the team in analysis and reporting, and created the enhanced RCAM figure with exemplars. Crystal Collier participated with the team in analysis and reporting. All authors read and approved the final manuscript.

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Conflict of interest

No conflict declared.

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