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Sreelatha Akkala, Urvi Mehta, Ruchi Nikhil Pavaskar, Kathryn R. Gallardo, Jakira Lewis, Sheryl McCurdy & J. Michael Wilkerson

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Alternative Peer Groups (APGs) in adolescent substance use disorder recovery: an insight into services and the need for robust infrastructure

Sreelatha Akkala^{a,b}, Urvi Mehta^{b,c}, Ruchi Nikhil Pavaskar^{b,c}, Kathryn R. Gallardo^{b,d}, Jakira Lewis^{b,d}, Sheryl McCurdy^{b,d}, and J. Michael Wilkerson^{b,d}

^aDepartment of Management, Policy & Community Health, UTHealth School of Public Health, Houston, TX, USA; ^bCenter for Health Promotion & Prevention Research, UTHealth School of Public Health, Houston, TX, USA; ^cDepartment of Epidemiology, UTHealth School of Public Health, Houston, TX, USA; ^dDepartment of Health Promotion & Behavioral Sciences, UTHealth School of Public Health, Houston, TX, USA

ABSTRACT

Background: An Alternative Peer Group (APG) is a promising adolescent recovery support model, incorporating recovery peers and prosocial activities into evidence-based clinical practice. Our study presents key characteristics that are integral to APGs.

Methods: An online survey was conducted through Qualtrics to understand key features of an APG (2021). Respondents included individuals such as program directors, CEOs, and recovery coaches, with only one respondent per APG. Data analysis was conducted using STATA.

Results: All 21 participants who responded to a question about their perceptions on service provision perceived staffed adolescent support groups, peer role modeling, supervised social activities, linkages to psychological services as important/very important. Approximately, 95% considered mental health counseling, 90% considered substance use dependence screening, and 86% considered mental health screening, Narcan training/distribution, linkages to recovery high schools as important/very important. However, only 64% of them offer SUD screening, 55% offer mental health screening, Narcan training/distribution, and linkages to recovery high schools, and 41% offer mental health/psychological counseling.

Conclusions: Our study findings demonstrate noticeable incongruity between perceived significance of services and their effective implementation. This underscores a compelling need to increase funding for practitioners, research to substantiate effectiveness of APGs, and steps to list APGs into SAMHSA's evidence-based practice directory.

ARTICLE HISTORY

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KEYWORDS

Peer group; peer support model; substance use; young adults; adolescence; recovery support

Background

The rise in Adolescent Substance Use Disorders (SUDs) presents a growing concern, with the prevalence of SUDs among American adolescents reaching an alarming 3.7 million in 2021 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2022). The neurobiological landscape of adolescence fosters a desire for risky experiences, rendering them more susceptible to excessive substance use and subsequent development of SUD (A. Nash & Collier, 2016; Smith et al., 2020). This vulnerability arises during a critical phase of neurological development, where the adolescent brain undergoes rapid remodeling (A. Nash & Collier, 2016; Smith et al., 2020). The repercussions of excessive substance use during this developmental period extend beyond addiction; potentially impairing cognitive functions like memory and self-regulation, posing significant challenges to healthy development (A. Nash & Collier, 2016; Smith et al., 2020).

Existing interventions targeting adolescent SUD include family-based therapy, cognitive behavioral therapy (CBT), multicomponent psychosocial therapy, motivational interviewing (MI), 12-step programs, recovery high school (RHS), and pharmacotherapy (Fadus et al., 2019; Hogue et al., 2018).

While all these interventions are effective, they do not work as stand-alone treatments. Adolescents require a continuum of care that integrates these approaches along with changes in home and family environment to maintain long-term recovery (McKay, 2021; Welsh et al., 2020). Family-based therapies provide parents with more flexibility in the delivery and approach of the intervention (Fadus et al., 2019; Hogue et al., 2018). CBT have shown to be an effective treatment for adolescent SUD, but the research surrounding this varies (Fadus et al., 2019; Welsh et al., 2020; Zamboni et al., 2021). While MI can be accessible and brief, there is mixed evidence supporting MI as a standalone treatment for adolescent SUD (Fadus et al., 2019). For adolescent 12-step programs targeting SUD as a standalone treatment, the evidence showing the efficacy is limited, however, these programs have been shown to be effective as a component of multicomponent treatments (Fadus et al., 2019; A. J. Nash, 2020). RHS foster social connectedness and also promote academic growth within a structured environment. These schools provide adolescents with a unique setting where adolescents can continue their education while reinforcing recovery values, helping them reintegrate into family and home life (Fadus et al., 2019; Finch et al., 2018). Currently, only buprenorphine for opioid

use disorder had been approved by FDA for adolescent SUD (16+ years) (Fadus et al., 2019; Squeglia et al., 2019). While there is potential of successful treatment using pharmacotherapy, further research is needed before FDA approval can be granted for use in adolescents (Hogue et al., 2018; Squeglia et al., 2019).

Addressing the unique challenges inherent in treating adolescents with SUDs, there exists a pressing need for effective recovery support models capable of fostering sustained engagement in long-term recovery. Among existing interventions, APGs have shown to be a promising peer support model for treating adolescent SUD and represents a comprehensive framework dedicated to aiding adolescents in their recovery (A. Nash & Collier, 2016; Smith et al., 2020). This model encompasses a spectrum of vital elements, such as structured 12-step meetings, diverse counseling formats (individual, family, and group sessions), multifamily group engagements, and educational interventions designed for both adolescents and their parents, thus navigating adolescents through the challenges posed by substance use (A. J. Nash, 2020; A. Nash & Collier, 2016; Smith et al., 2020). APGs offer adolescents a transformative social environment, providing a novel network that cultivates attitudes and behaviors essential for overcoming substance use (Smith et al., 2020). At its core, the APG emphasizes the crucial role of social interactions through after-school hangouts, sober weekend gatherings, and retreats, leveraging the power of positive peer relationships as a cornerstone for effective recovery (A. Nash & Collier, 2016; Smith et al., 2020). By providing structured social interactions and closely monitoring behavior, the APG model strives to promote healthy norms and values among adolescents seeking recovery (A. Nash & Collier, 2016; Smith et al., 2020). However, while the APG model is designed as a multi-modal intervention with a wide range of services, there remains a gap regarding the service provision across different APGs. The extent to which APGs provide comprehensive services remains uncertain (A. Nash & Collier, 2016; Passetti et al., 2016; Rochat et al., 2011; Smith et al., 2020). Therefore, it is important to highlight the need for further research on the spectrum of services provided by different APGs compared to the ideal model. Understanding these gaps will help identify areas where APGs can be enhanced to better address the needs of adolescents in recovery.

Studies evaluating APG participation have shown promising outcomes. Research conducted by Rochat et al., revealed that adolescents enrolled in APGs reported greater attachment and improved communication and trust with their parents compared to control groups (Rochat et al., 2011). Parents, in turn, highlighted the program's positive impact on enhancing family relationships and their ability to support adolescents in their recovery.

APGs originated in Texas and have since expanded to other regions, with approximately 45 known APGs operating across the United States (US) (A. Nash & Collier, 2016). This study aims to delve into the process of characterizing the existing APGs in the US to lay the foundation for standardizing the model and supporting future APG effectiveness research.

Methods

A cross-sectional online survey was designed to understand the key features and services that are integral to APGs. This survey was a census of APG organizations in the US conducted between May and July 2021. The list of organizations that were part of this survey were identified from the membership list and known organizations from the Association of Alternative Peer Groups (AAPG). The survey included both closed-ended and open-ended questions, providing a comprehensive view of the characteristics and services provided by APGs. Participants in our study consisted of individuals associated with APGs, such as program directors, CEOs, clinical coordinators, and recovery coaches.

Data collection was conducted through Qualtrics. The survey comprised sections covering various aspects of APGs, including demographic data, APG services, funding, and AAPG membership. The survey also included questions pertaining to the various services offered by APGs, including support groups, counseling, education, vocational training, residential treatment, case management and service linkage, after school programming, supervised social activities, parent support activities, and family counseling (See Table 2 for a list of services). Participants were asked to rank the importance of services provided by their organization and identify services they believed were important but not currently offered.

The survey also collected the following data from the respondents: demographic information, certification status in the addictions/recovery field, job title, years of experience in the substance use treatment and recovery field, and self-identification as a person in recovery. To encourage participation, participants received Starbucks e-gift cards as incentives. Data obtained from these surveys were analyzed using STATA v.17.0 software.

Results

Out of approximately 45 known APG organizations, 36 completed our survey. Of the 36 participants who responded/attempted to complete the survey, six participants did not consent. Therefore, their responses were removed from the data analysis. Out of the remaining 30 participants, 18 participants (60%) completed the survey 100%. The majority of respondents held leadership or managerial roles within their organizations. Specifically, the respondent roles included Program Directors (n = 7 [23.3%]), Executive Directors (n = 5 [16.7%]), CEOs (n = 4 [13.3%]), Recovery Coordinators or coaches (n = 2 [6.7%]), Clinical Directors (n = 1 [3.3%]), and other roles that included program managers, co-coordinator, youth supervisors, and school supervisors (n = 6 [20.0%]). Table 1 summarizes sociodemographic characteristics of the participants representing various APGs. The mean age of the participants was approximately 45 years. The majority of the participants were White (n = 25 [86%]). Nearly half of the participants had a graduate school degree (n = 14 [48%]) and over half of the participants were licensed in counseling or therapy. The majority of participants were employed in a paid full-time position (n = 16 [64%]) in the APG organization.

Table 1. Socio-demographic characteristics of the participants (N = 30)

Age (years), mean ± SD 44.93 ± 12.49 Sex (%) Female 15 (50%) Male 15 (50%) Sexual identity (%) Bisexual 1 (3.45%) Heterosexual (Straight) 26 (89.66%) Lesbian/Gay 02 (6.90%) Race/Ethnicity (%) White 25 (86.21%) Black/African American 03 (10.34%) Hispanic 10.00 Level of education (%) Graduate School degree 14 (48.28%) Some college or technical school 05 (17.24%) Technical school completion/certificate 01 (3.45%) Associate degree 01 (3.45%) Bachelor's degree 06 (20.69%) Employment status (%) Employed full time (Paid) 16 (64%) Employed full time (Unpaid) 03 (12%) Employed part time (Paid) 03 (12%) Current certification status (%) Peer recovery support specialist/recovery coach 06 (24%) Licensed in counseling/therapy 11 (44%) Other: certified addiction counselor 01 (4%)
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Other: certified addiction counselor 01 (4%)
Previous certification status (%)
Licensed in counseling/therapy 01 (4%)
People in recovery (%) 20 (86.96%)
Location of APG
Recovery high school 04 (17.39%)
Within a church 03 (13.04%)
Community center/community organization 06 (26.09%)
Offices of a for-profit business 02 (8.70%)
Co-located with another organization 05 (21.74%)
Other 03 (13.04%)

Funding and services offered

The majority of APGs were funded through nonprofit organization (n = 16). Additionally, nine APGs reported offering services at no cost to youth and families who cannot afford to pay. A smaller number (n = 4) accepted payments as forprofit organizations. Three APGS operated on an incomebased sliding scale to make their services affordable to a range of families. Various services were offered by the APGs, with all of them providing supervised social activities and linkages to psychological services (n = 22 [100%]). Around 95% (n = 21) of the participating APGs offered staffed adolescent support groups or meetings, positive peer role modeling, relapse prevention education and support, linkages to community 12-step/mutual aid group meetings and outside services not part of their program. Only 13% (n = 3) of the APGs offered residential treatment and vocational training or placement while only one APG (4.55% of the total respondents) provided childcare services (Table 2).

Perceived importance of services

Participants were also asked about their perceived importance of providing various services. The answers ranged from not important, moderately important to important and very important. All the participants (n = 21 [100%]) perceived services like staffed adolescent support groups/meetings, positive

peer role modeling, supervised social activities, linkages to psychological services as important/very important. Services like unsupervised social activities (n = 12 [57%]), smoking cessation support (n = 12 [57%]), vocational training or placement (n = 11 [52%]), and childcare services (n = 9 [42.8%])were considered as least important of all the services (Table 3). A notable discrepancy was found between services that were considered important/very important and the services that were offered. Approximately, 95% (n = 20) considered mental health counseling, 90% (n = 19) considered substance use dependence screening, and 86% (n = 18) considered mental health screening, Narcan training/distribution, linkages to recovery high schools as important/very important. However, only 64% (n = 14) of them offered SUD screening, 55% (n = 12) offered mental health screening, Narcan training/ distribution, and linkages to recovery high schools, and 41% (n = 9) offered mental health/psychological counseling (Figure 1).

Discussion

APGs are a promising approach in addressing the unique challenges associated in treating adolescents with SUDs. With a multi-faceted approach that incorporates positive peer support and prosocial activities, APG model helps long term engagement in the recovery process and promote

Table 2. Services offered by APGs.

Services	Yes	No
Staffed adolescent support groups/meetings	21 (95.45%)	1 (4.55%)
Staffed parent support groups/activities	18 (81.82%)	4 (18.18%)
Staffed sibling support groups/activities	5 (22.73%)	17 (77.27%)
Recovery coach by youth staff (ages 12–17)	9 (40.91%)	13 (59.09%)
Recovery coaches by young adult staff (ages 18–26)	13 (59.09%)	9 (40.91%)
Positive peer role modeling	21 (95.45%)	1 (4.55%)
Process or skills group counseling	18 (81.82%)	4 (18.18%)
Relapse prevention education and support	21 (95.45%)	1 (4.55%)
Multi-family group counseling	13 (59.09%)	9 (40.91%)
Individual alcohol/drug counseling	18 (81.82%)	4 (18.18%)
Mental health or psychological counseling	9 (40.91%)	13 (59.09%)
Family counseling	16 (72.73%)	6 (27.27%)
Residential treatment	3 (13.64%)	19 (86.36%)
Intensive outpatient treatment	6 (27.27%)	16 (72.73%)
Case management	14 (63.64%)	8 (36.36%)
Educational assistance	12 (54.55%)	10 (45.45%)
Vocational training or placement	3 (13.64%)	19 (86.36%)
After school programming	12 (54.55%)	10 (45.45%)
APG -run school	4 (18.18%)	18 (81.82%)
APG services provided within a school district or campus	7 (31.82%)	15 (68.18%)
Supervised social activities	22 (100%)	NA
Unsupervised social activities	5 (22.73%)	17 (77.27%)
Community service activities	18 (81.82%)	4 (18.18%)
Retreats or wilderness trips	12 (54.55%)	10 (45.45%)
Drug/alcohol testing	11 (50%)	11 (50%)
Substance use dependence screening and progress monitoring	14 (63.64%)	8 (36.36%)
Mental ill-health screening and progress monitoring	12 (54.55%)	10 (45.45%)
Smoking cessation support	5 (22.73%)	16 (72.73%)
Narcan training and/or distribution	12 (54.55%)	10 (45.45%)
Support for medication assisted treatment	8 (36.36%)	13 (59.09%)
Spiritual guidance	14 (63.64%)	7 (31.82%)
Physical activities	19 (86.36%)	3 (13.64%)
Participation in expressive arts	18 (81.82%)	4 (18.18%)
Child-care services	1 (4.55%)	21 (95.45%)
Social services/basic needs assistance	11 (50%)	11 (50%)
Linkages to outside services (referrals from or to the service but not part of your program)	21 (95.45%)	1 (4.55%)
Linkages to recovery high schools	12 (54.55%)	10 (45.45%)
Linkages to treatment facilities	20 (90.91%)	2 (9.09%)
Linkages to public schools	14 (63.64%)	8 (36.36%)
Linkages to medial services	10 (45.45%)	12 (54.55%)
Linkages to psychological services	22 (100%)	NA
Linkages to community 12-step/mutual aid group meetings	21 (95.45%)	1 (4.55%)
Linkages to juvenile justice	15 (68.18%)	7 (31.82%)

development of new social connections that value recovery rather than using substances (A. Nash & Collier, 2016). APGs provide the structured environment conducive to the development of recovery skills and help create recovery-supportive social networks, which are essential for adolescents with SUDs (A. Nash & Collier, 2016). Through APGs, adolescents can engage with peers in a healthy, prosocial manner, replacing negative influences and reinforcing the skills necessary for positive long-term recovery (A. Nash & Collier, 2016; Rochat et al., 2011; Smith et al., 2020).

The findings of our study underscore the critical role of APGs in adolescent recovery. Our survey results demonstrated that APGs offer a range of services including supervised social activities, linkages to psychological services, staffed adolescent supports groups, positive peer role modeling, relapse prevention education and support, linkages to outside services, and linkage to community 12-step/mutual aid group meetings. These essential services help adolescents in their recovery by providing necessary support and guidance to navigate the complexities of the recovery process. Our study findings align with the article by Nash et al., that emphasizes the importance of social connections and peer support in

adolescent recovery (A. Nash & Collier, 2016). Our findings are also consistent with previous research on APGs, which has also identified these services as being important for the success of APGs (A. Nash & Collier, 2016; Rochat et al., 2011; Smith et al., 2020).

However, our study noticed an incongruity between services that are considered important/very important and the services that are offered by APGs. For instance, while the majority of APGs considered mental health counseling, substance use dependence screening, Narcan training/distribution, and linkages to recovery high schools, these services are not consistently offered across all the APGs. One possible explanation for this discrepancy is that APGs may not have the resources and funding to offer these services. Our research highlights a gap between the services offered by APGs and those perceived as important by stakeholders, similar to the themes of belonging and services as outlined in a study by Smith et al. (2020). Their findings highlight the importance of social activities and a sense of community in recovery, aspects that are critical but perhaps underemphasized in current APG programs (Smith et al., 2020).

Table 3. Participant perceived importance of providing various services.

Service	Not important	Moderately important	Important	Very important
Staffed adolescent support groups/meetings			3 (14.29%)	18 (85.71%)
Staffed parent support groups/activities		1 (4.76%)	1 (4.76%)	18 (85.71%)
Staffed sibling support groups/activities	3 (14.29%)	1 (4.76%)	11 (52.38%)	5 (23.81%)
Recovery coach by youth staff (Ages 12–17)	2 (9.52%)	5 (23.81%)	4 (19.05%)	9 (42.86%)
Recovery coaches by young adult staff		2 (9.52%)	1 (4.76%)	15 (71.43%)
(Ages 18–26)				
Positive peer role modeling			4 (19.05%)	17 (80.95%)
Process or skills group counseling	1 (4.76%)	2 (9.52%)	3 (14.29%)	15 (71.43%)
Relapse prevention education and support		1 (4.76%)	3 (14.29%)	17 (80.95%)
Multi-family group counseling	3 (14.29%)	1 (4.76%)	6 (28.57%)	10 (47.62%)
Individual alcohol/drug counseling		1 (4.76%)	2 (9.52%)	18 (85.71%)
Mental health or psychological counseling	1 (4.76%)		6 (28.57%)	14 (66.67%)
Family counseling		1 (4.76%)	4 (19.05%)	16 (76.19%)
Residential treatment	4 (19.05%)	2 (9.52%)	9 (42.86%)	6 (28.57%)
Intensive outpatient treatment	3 (14.29%)	3 (14.29%)	8 (38.1%)	7 (33.33%)
Case management		4 (19.05%)	8 (38.1%)	9 (42.86%)
Educational assistance		6 (28.57%)	5 (23.81%)	10 (47.62%)
Vocational training or placement	3 (14.29%)	6 (28.57%)	5 (23.81%)	6 (28.57%)
After school programming		4 (19.05%)	4 (19.05%)	13 (61.9%)
APG -run school	5 (23.81%)	1 (4.76%)	9 (42.86%)	6 (28.57%)
APG services provided within a school district or campus	4 (19.05%)	2 (9.52%)	9 (42.86%)	6 (28.57%)
Supervised social activities			4 (19.05%)	17 (80.95%)
Unsupervised social activities	7 (33.33%)	2 (9.52%)	8 (38.1%)	4 (19.05%)
Community service activities	1 (4.76%)	2 (9.52%)	5 (23.81%)	13 (61.9%)
Retreats or wilderness trips	3 (14.29%)	1 (4.76%)	3 (14.29%)	14 (66.67%)
Drug/alcohol testing	2 (9.52%)	5 (23.81%)	5 (23.81%)	8 (38.1%)
Substance use dependence screening and progress monitoring	1 (4.76%)	1 (4.76%)	5 (23.81%)	14 (66.67%)
Mental ill-health screening and progress monitoring	1 (4.76%)	2 (9.52%)	5 (23.81%)	13 (61.9%)
Smoking cessation support	7 (33.33%)	2 (9.52%)	5 (23.81%)	7 (33.33%)
Narcan training and/or distribution	1 (4.76%)	2 (9.52%)	5 (23.81%)	13 (61.9%)
Support for medication assisted treatment	5 (23.81%)	3 (14.29%)	6 (28.57%)	7 (33.33%)
Spiritual guidance	2 (9.52%)	2 (9.52%)	4 (19.05%)	12 (57.14%)
Physical activities	1 (4.76%)	, ,	4 (19.05%)	16 (76.19%)
Participation in expressive arts	, ,	3 (14.29%)	5 (23.81%)	13 (61.9%)
Child-care services	5 (23.81%)	7 (33.33%)	6 (28.57%)	3 (14.29%)
Social services/basic needs assistance	1 (4.76%)	5 (23.81%)	9 (42.86%)	6 (28.57%)
Linkages to outside services (referrals from or to the service but not part of your program)		1 (4.76%)	7 (33.33%)	13 (61.9%)
Linkages to recovery high schools	2 (9.52%)	1 (4.76%)	6 (28.57%)	12 (57.14%)
Linkages to treatment facilities		1 (4.76%)	5 (23.81%)	14 (66.67%)
Linkages to public schools		2 (9.52%)	6 (28.57%)	11 (52.38%)
Linkages to medial services		3 (14.29%)	8 (38.1%)	9 (42.86%)
Linkages to psychological services	1 (4.76%)	- (/ - /	3 (14.29%)	18 (85.71%)
Linkages to community 12-step/mutual aid group meetings		2 (9.52%)	5 (23.81%)	14 (66.67%)
Linkages to juvenile justice	1 (4.76%)	= \	9 (42.86%)	11 (52.38%)

Funding is a major barrier to providing the comprehensive services that APGs are capable of offering. The majority of APGs are self-funded and are funded through nonprofit organizations which may limit their capacity to offer comprehensive, long-term care. This is particularly critical since the relapse rate for adolescents with SUD is high, with over 70% relapsing within one year of treatment (Smith et al., 2020). Expanding the range of services offered by APGs would likely improve adolescent outcomes, but this will require increased funding.

The positive impact of APGs on family relationships and adolescent recovery, as noted in existing literature, suggests that there's a need for APGs to be fully integrated into the broader framework of evidence-based practices (A. Nash & Collier, 2016; A. J. Nash et al., 2019; Smith et al., 2020). There is a critical need for research demonstrating the effectiveness of APGs in helping adolescent recover from substance use in the long term (Passetti et al., 2016). This research would not only provide the evidence necessary to secure sustainable funding for APGs but also inform the ongoing development of APGs to better meet the needs of adolescents struggling with SUDs.

The key strengths of our study are the inclusion of a comprehensive list of services on the survey and the crosssectional survey design that allowed for collecting broad range of data from APG stakeholders at a single point in time, providing an overview of all the key services provided by the APGs. The combination of both open-ended and closed ended questions in our survey facilitated a detailed analysis of APGs encompassing both quantitative data and qualitative insights. By examining the characterization and standardization of APGs, the study contributes to a deeper understanding of the operational nuances that are crucial for their success. However, it is important to acknowledge the limitations of our study. While the sample size of 36 APGs may appear small, it is important to note that this study represents a census survey of the 36 known APG organizations in the US. Out of approximately 45 known APGs, we captured responses from 80% of the known APG organizations. This inclusion highlights the importance of our research on APGs. However, these findings cannot be considered representative of the full range of services provided by all APGs. Future research is essential to collect data from individuals representing diverse roles within an APG organization, as well as from participants and their parents. This would provide a more comprehensive representation of the services considered integral by all stakeholders

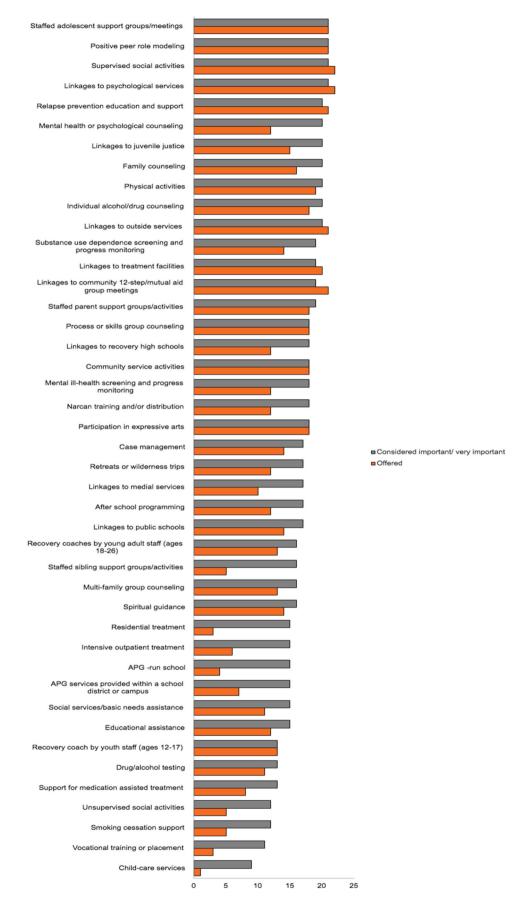


Figure 1. Perceived importance of various services vs services currently offered by APGs.



involved in APGs. In addition, the small sample size underscores the need for further research in this area, given the limited number of APGs, making each organization's participation crucial for understanding the broader impact and effectiveness of the APGs. Furthermore, we received responses from only one individual per APG, which may not capture the perspectives of all staff roles within the organization.

As with any survey-based research, the data are subject to response bias, which may affect the accuracy of the information provided by the participants. The study was cross-sectional and did not follow APGs over time, limiting the ability to assess the long-term impact of their services.

In conclusion, our findings highlight a critical need for research on the effectiveness of APGs, which would pave the way toward establishing the evidence to support the inclusion of APGs in SAMHSA's registry of evidence-based practices for adolescents. This would eventually result in increased funding opportunities, as evidence-based practices are reimbursable through insurance.

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Data availability statement

The dataset presented in this article is not available as it may contain identifying details even if redacted. Participants were assured we would not share the data beyond the participants and research staff.

Ethical approval

All participants signed an informed consent approved by the UTHealth Committee for the Protection of Human Subjects (IRB) prior to study participation

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