

Understanding Adverse Experiences and Providing School-Based Supports for Youth who are High Risk with and without FASD

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Abstract

Youth who are high risk (YHR) face numerous adversities, and those with Fetal Alcohol Spectrum Disorder (FASD) may experience even more complex challenges due to the compounding impact of brain dysfunction. However, very little research has

been conducted to understand or characterize this vulnerable group, or explore potential strategies for supporting their specific needs. In the current study, we sought to characterize some of the adverse experiences of YHR with and without FASD (N = 90) who were attending an innovative school that supports students who have struggled in other educational settings. We also examined services offered at this school and explored whether service access and several social and educational factors differ between youth with and without FASD. Findings indicate that YHR with FASD have more complex needs and a different pattern of service use than YHR without FASD. These findings are discussed in the context of how we might better support YHR and foster successful outcomes.

Keywords: *Fetal Alcohol Spectrum Disorder, youth, high risk, education, school-based supports; promising practices*

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Introduction

Youth who are high risk (YHR) tend to experience various complex needs and an array of vulnerabilities, including social isolation, health and behavior problems, poor relationships, and other adverse life events (Smyth & Eaton-Erickson, 2009). These youth are often disconnected from supportive resources and struggle to access services (Smyth & Eaton-Erickson, 2009). Several factors that may strengthen youth connection to services include meaningful relationships with service providers, support during life transitions, a network of support programs accessible outside of standard business hours, a sense of “being heard,” and service providers who work *with* youth by acknowledging that youth are the experts of their lives (Smyth & Eaton-Erickson, 2009). Tyler and colleagues (2012) reported that other factors such as gender, sexual orientation, age, history of abuse, being forced to leave home, and living on the street or in a group home are significant correlates of service access among youth who are homeless. In the health care literature specifically, research is emerging related to the promising role of technology (i.e., mobile apps) in increasing access to health and other resources (Sheoran et al., 2016). In the school context, researchers have explored potential models for service delivery aimed at supporting students with complex needs (e.g., Sulkowski & Michael, 2014), but there is less work specifically on factors influencing access to such school-based supports.

Fetal Alcohol Spectrum Disorder

Fetal Alcohol Spectrum Disorder (FASD) is a neurodevelopmental disorder resulting from prenatal alcohol exposure (PAE). Individuals with FASD may experience a myriad of challenges related to physical, cognitive, emotional, behavioral, social, and adaptive functioning (Chudley, et al., 2005), which endure across the life span. FASD is a spectrum disability, with a great degree of variability and heterogeneity in clinical presentation and profile of functioning. FASD is also associated with adverse outcomes that may result from the combination of the primary injury to the brain and environmental interactions. These adverse life outcomes may include trouble with school, problems with mental health and substance abuse, victimization, inappropriate behaviors, legal issues, confinement (hospitalization or incarceration), and challenges with employment and independent living (Streissguth,

et al., 2004).

Youth with FASD are a subgroup of the YHR population who may present with especially complex challenges, due to the complicating issue of brain damage related to PAE; however, few studies have been conducted to understand or characterize this group. Evidence-based interventions for YHR in general are vast, but none focus specifically on YHR *with* FASD (see Rebus, et al. in press for a review). School tends to be a comfortable and convenient setting and may enable connections between multiple individuals in a student's life, thus it may be an ideal venue for interventions with this group. Unfortunately, little to no research has been conducted in terms of educational best practices for YHR with FASD. Although there are several studies on service utilization in the FASD population, most explore trends in accessing and implementing intervention recommendations following clinical diagnosis of FASD (e.g., Pei, Baugh, Andrew, & Rasmussen, 2017), and none examine YHR with FASD specifically.

FASD in schools. Individuals with FASD are often impaired in numerous cognitive domains (see Mattson, Crocker, & Nguyen, 2011 for a review), and tend to experience specific problems with learning and achievement across academic areas (Goldschmidt, Richardson, Cornelius, & Day, 2004; Howell, Lynch, Platzman, Smith, & Coles, 2006), with particular difficulty in mathematics (Rasmussen & Bisanz, 2009). In their longitudinal research, Streissguth and colleagues (2004) reported a high prevalence of school-related challenges among individuals with FASD, with 60% of adolescents and adults reporting problems with expulsion, suspension, and drop out. In spite of these concerns, school practitioners report a lack of familiarity and knowledge of FASD, limited strategies or resources for working with this student group, and systemic stigma related to FASD in schools (Koren, Fantus, & Nulman, 2010).

Supporting Students with FASD

Researchers have described some promising strategies for addressing school-related challenges in FASD. For instance, high school students with FASD report that school persistence may be fostered by parental advocacy and social and academic integration, such as peer interaction and suitable curricula (Duquette, Stodel, Fullarton, & Hagglund, 2006a; 2007). Moreover, students with FASD note preference for teachers who are patient, flexible, and knowledgeable about FASD over those who are disorganized or unavailable to help, embarrass students or put them down, are sarcastic, brush off student questions, or single them out (Duquette, Stodel, Fullarton, & Hagglund, 2006b). Other researchers working with families and school professionals have emphasized the importance of educators understanding students' levels of development and functioning, how brain development is impacted by PAE, and the positive influence of experienced teachers who employ a range of teaching strategies (Ryan & Ferguson, 2006). Caregivers and other educational stakeholders report a need for increased awareness and education of FASD, funding for service access, multi-system collaboration, enhanced assessment services, and additional research on screening, interventions, and collaboration (Duquette & Orders 2010; Job, et al., 2013; Pei, Job, Poth, & Atkinson, 2013).

Educational Strategies

Evidence-based interventions. There are a limited but growing number of evidence-based interventions for individuals with FASD in general, and few of these focus specifically on the school setting. Two academically focused interventions

found to be efficacious with young children with FASD are a language and literacy intervention (Adnams, et al., 2007) and a math-tutoring program (Kable, Coles, & Taddeo, 2007; Coles, Kable, & Taddeo, 2009). For adolescents, the Wellness, Resiliency and Partnerships Project (WRaP), developed in Alberta, Canada, aims to support students with FASD with the help of success coaches. Preliminary results suggest that WRaP has helped to improve student engagement, support academic successes, and enhance social, emotional, and physical well-being (Alberta Government, 2012).

Best practices for FAASD

Several general educational guidelines for students with FASD have been recommended, including using multi-modal, holistic approaches, building scaffolding skills, supporting sensory integration and self-regulation, and focusing on attention, speech/language, communication, social functioning, and student motivation (Mitten, 2013). A number of “best practice” resources are available through government agencies and education boards (Alberta Learning, 2004; British Columbia Ministry of Education, 1996; Florida Department of Education, 2005; Healthy Child Manitoba, 2009; Lutherwood, 2012; NoFAS South Dakota, 2009; Yukon Department of Education, 2007; Zieff & Schwartz-Bloom, 2008), most of which emphasize a brain-informed, wrap-around, flexible, individualized, and strengths-based approach involving environmental modification and collaboration.

Boyle Street Education Center

The Boyle Street Education Center (BSEC) is a public charter school located in the inner city of Edmonton, Alberta, Canada, serving YHR (aged 14 to 19 years) who struggle to complete high school through traditional means. A number of the students attending BSEC have been diagnosed with FASD, or are suspected of having PAE, and many experience multiple life adversities. In response to the complex needs of their student population, BSEC offers a wide range of unique services and engages in a number of innovative and non-traditional practices with the goal of inspiring and supporting educational and social success, and a positive transition to adulthood. Students at BSEC attend classes that are part of the standard curriculum, as well as a wide variety of option classes, such as Physical Education, Audio and Video Production, Construction and Fabrication, Cosmetology and Aesthetics, Digital Media, Fine Art, Fashion Studies, Food and Culinary Arts, Work Readiness, and Work Experience. BSEC also has a variety of holistic wrap-around services, to which students can either self-refer, or are referred by staff (see Table 1 for a more in-depth description of these services).

Table 1. Description of BSEC wrap-around services.

Service	Description
Psychological Testing	<ul style="list-style-type: none"> On-site psychologist to assess students with learning and/or behavioural issues, and inform individualized learning plans
Counseling & Health Services	<ul style="list-style-type: none"> Psychological counselling: Psychotherapy provided by community psychologists with expertise in trauma and resilience School counselling: On-site BSEC counsellor specializing in indigenous cultural issues and addictions, who provides general support and guidance, and support or referral for substance abuse and detox/treatment if needed Addictions counselling: Weekly visits from an Alberta Health Services therapist Weekly drop-in animal-assisted therapy group co-facilitated by a BSEC staff member and a counselling psychologist

	<ul style="list-style-type: none"> • Weekly visits from a community health nurse for sexual health, flu shots, and other health consultations
Alternative Classes	<ul style="list-style-type: none"> • Drop-in drama, improvisation, yoga, meditation, physical education, art • Designed to help students manage stress and remain engaged at school when they are finding it difficult to focus on their academic studies
Youth Worker	<ul style="list-style-type: none"> • On-site student support for legal issues (e.g. warrants, charges, court dates, tickets, community service hours, accessing a court worker or lawyer, etc.), advocating to access resources (e.g. housing, access to a social worker, transportation, etc.), or accessing financial resources (e.g. Alberta Works Learner's Benefits, Alberta Assured Income for the Severely Handicapped [AISH], etc.).
Cultural Activities	<ul style="list-style-type: none"> • Sweat lodges, pipe ceremonies, and smudging that students can attend on a voluntary basis • Students are also connected with an Elder should they request the desire to speak to one
Work-Related Services	<ul style="list-style-type: none"> • On-site and off-site work experience programs, and assistance with resumes
Incentives & Other Services	<ul style="list-style-type: none"> • Current event seminars, free breakfast and lunch, transportation (i.e., bus tickets), and field trips • Referrals to specialists (e.g., psychiatrist, neuropsychologist), and support for specific needs (e.g., winter clothes, eyeglasses, sanitary supplies)

BSEC aims to maximize student success by creating a flexible learning environment tailored to the specific needs of each student. An in-depth intake process involves assessment of academic, social, and psychological needs through collaboration among the student, teachers, psychologists, and administrators. Small class sizes, continuous enrolment, self-paced learning, and differentiated versus grade-level teaching in each classroom further contribute to the flexibility of the program. Teachers and staff at BSEC focus on building trust, respect, and healthy relationships through engaging students in conversation about matters that are important to them, and using a first name basis and casual dress to break down authority or power issues. BSEC teachers and staff work closely with outside organizations including group homes, social workers, and probation officers to ensure that students' complex needs are supported. For students with FASD specifically, their diagnosis is identified at intake and they are prioritized for counselling and other support services when needed. Information about their diagnosis and functioning is communicated to teachers and other support staff, and used to modify course work and classroom behaviour expectations.

Transition to Adulthood

For students struggling with severe learning difficulties, BSEC focuses more on citizenship and employment than academics and post-secondary goals. Basic literacy and vocational skills are developed across standard, option, and work experience classes. Students can also access a success coach who partners with external work placements and supports the student with resume-building, interview skills, and funding applications. For students who may not be competitively employable, support staff assist the student in applying for income supports and specialized government services for adults with disabilities. Additionally, staff administering the work experience program have been trained in FASD and work to mitigate the unique challenges of youth affected in both off-site and on-site work experience by educating job placements about issues related to FASD and by advocating for the youth.

Current Study

Given our relatively limited understanding of YHR with FASD, and the paucity of research on evidence-based best practices and school strategies for this group, we sought to 1) characterize some of the adverse life experiences of YHR with FASD including instability, mental illness, and trouble with the law, 2) explore the services and programs currently employed at BSEC to support students with FASD, and examine whether services differ between students with and without FASD, and 3) examine the association between service access and school attendance rates, co-morbid mental health diagnoses, and legal issues. Ultimately, the goal of this research was to increase our understanding of the complex needs and service utilization trends in this vulnerable group of students.

Method

Data collection. This was a community-based participatory action research study conducted in collaboration between researchers and staff at BSEC. A retrospective review was conducted by BSEC staff on school files from students who attended BSEC between 2010 and 2014. Data was collected on demographics, living arrangement, legal issues, student attendance, FASD and other co-morbid diagnoses, and school services recommended and accessed. All data was coded anonymously and an Institutional Ethics Review Board approved the study.

Participants. Two groups of students were identified: 1) those with a documented FASD diagnosis (FASD group, $n = 45$), and 2) those with no FASD diagnosis or documented PAE (Comparison group, $n = 45$). Students with suspected PAE or undiagnosed FASD were removed from the participant pool. Eighteen students were randomly selected for each year in the study, beginning in 2010 (i.e., 9 in the FASD group, 9 in the Comparison group). After students were selected, they were removed from the participant pool for the remaining years.

Data analysis. Independent samples *t*-tests and one-way ANOVA were used to explore differences in demographics and student attendance at BSEC. Descriptive statistics were used to examine co-morbid diagnoses and the types of services recommended to and accessed by students in both the FASD and Comparison group. Pearson Chi-Square tests were conducted to examine group differences in legal issues, co-morbid diagnoses, and service recommendation and access. Finally, gender differences were explored using Chi-Square tests and one-way ANOVA.

Results

Demographics. Data was collected from students aged 15 to 19 years (see Table 2). There were no significant differences in age, gender, or ethnic background between the two groups. The majority of students in both groups first entered BSEC in grade 10 or 11, and students spent, on average, approximately 1.5 years at the school. There were no group differences in school attendance. With regard to residential stability, students with FASD were more likely to have multiple living situations, $X^2(1, N = 90) = 3.60, p = 0.046$, and live on the streets or in a shelter, than the Comparison group.

Table 2. Group demographics.

	FASD ($n = 45$)	Comparison ($n = 45$)	<i>p</i> -value
Mean age in years (standard deviation; range)	16.80 (1.14; 15 to 19)	16.91 (1.41; 14 to 19)	0.682
Gender	60% male	49% male	0.199

Ethnicity	91% Aboriginal 9% Other	89% Aboriginal 11% Other	0.646
Grade of BSEC entry	10: 67% 11: 27% 12: 7%	10: 40% 11: 44% 12: 16%	0.037
Years attended at BSEC	1: 67% 2: 22% 3: 7% 4: 4%	1: 58% 2: 29% 3: 11% 4: 2%	0.680
Average class attendance (range)	29.5% (0.5 to 73.9%)	28.4% (1.8 to 66.2%)	0.803
History of living on the streets or in a shelter	37.8%	8.9%	0.001
Current living situation	Parents: 4% Other Family: 7% Partner: 4% Alone: 7% Friends: 2% Shared/Group: 16% Shelter: -- Multiple: 60%	Parents: 24% Other Family: 11% Partner: 7% Alone: 7% Friends: -- Shared/Group: 9% Shelter: 2% Multiple: 40%	--

Adverse life experiences. A high number of students in both groups had a criminal record (75.6% FASD, 55.6% Comparison), a history of incarceration (37.8% FASD, 26.7% Comparison), or were on probation at the time of intake (35.6% FASD, 17.8% Comparison). There were significant group differences in criminal record, $X^2(1, N = 90) = 3.99, p = 0.038$ and probation status, $X^2(1, N = 90) = 3.64, p = 0.047$, with higher rates in the FASD group. There was no group difference in incarceration history ($p > 0.05$).

Figure 1 illustrates mental health co-morbidities across groups. Students from both groups experienced a high number of co-morbid mental health diagnoses other than FASD (mean of 5.7 and range of 1 to 10 in the FASD group; mean of 3.2 and range of 0 to 8 in the Comparison group), and the FASD group had a significantly higher number of total co-morbid diagnoses, $t(88) = 5.58, p = 0.000$. The most common of these diagnoses were Learning Disability (LD) and substance abuse, and there were statistically significant group differences (greater proportions in the FASD group than Comparison group) in LD, Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), delayed cognitive ability, Reactive Attachment Disorder (RAD), and “*other*” diagnoses.

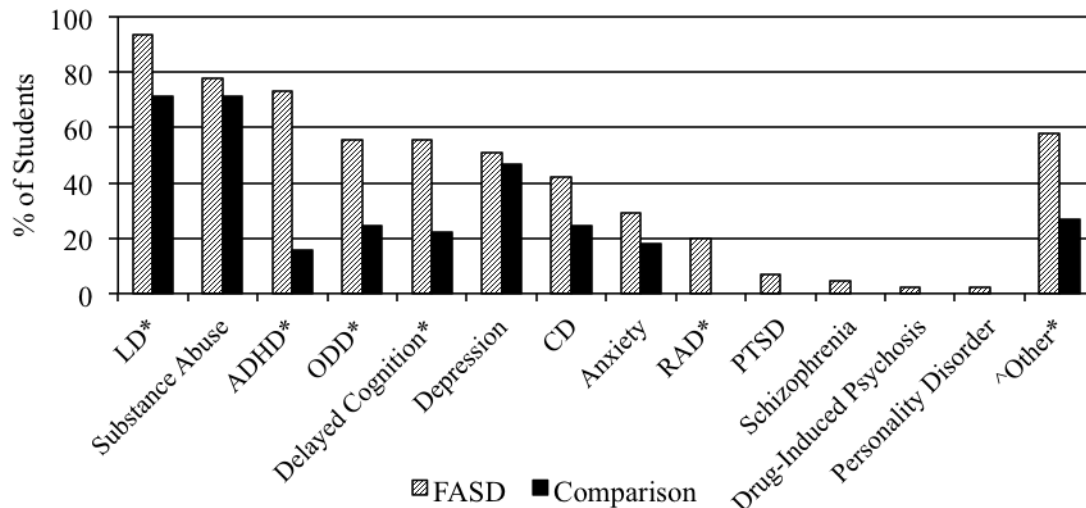


Figure 1. Percentage of co-morbid mental health diagnoses across the FASD and Comparison groups (* $p < 0.01$ based on Chi-Square analysis). ^“Other” mental health diagnoses included language delays, sleep problems, sensory and motor delays, and adjustment disorder.

Service recommendation and access. Across all BSEC students, services most commonly *recommended* were psychological testing (91.1%), bus tickets (70%), and psychological counseling (58.9%). Services most commonly *accessed* were bus tickets (68.9%), psychological testing (52.2%), and school counseling (52.2%), with over half of BSEC students accessing each of these services.

See Figure 2 for service recommendations across groups. Among students with FASD, the services most commonly *recommended* were psychological testing, psychological counseling, and school counseling. In the Comparison group, the most common recommendations were psychological testing, bus tickets, and psychological counseling. There were several group differences in service recommendations, with higher rates among students with FASD for general school counseling, school counseling for substance abuse, psychological counseling, and addictions counseling. There was also a significant reverse group difference in bus ticket recommendations, with higher rates in the Comparison group.

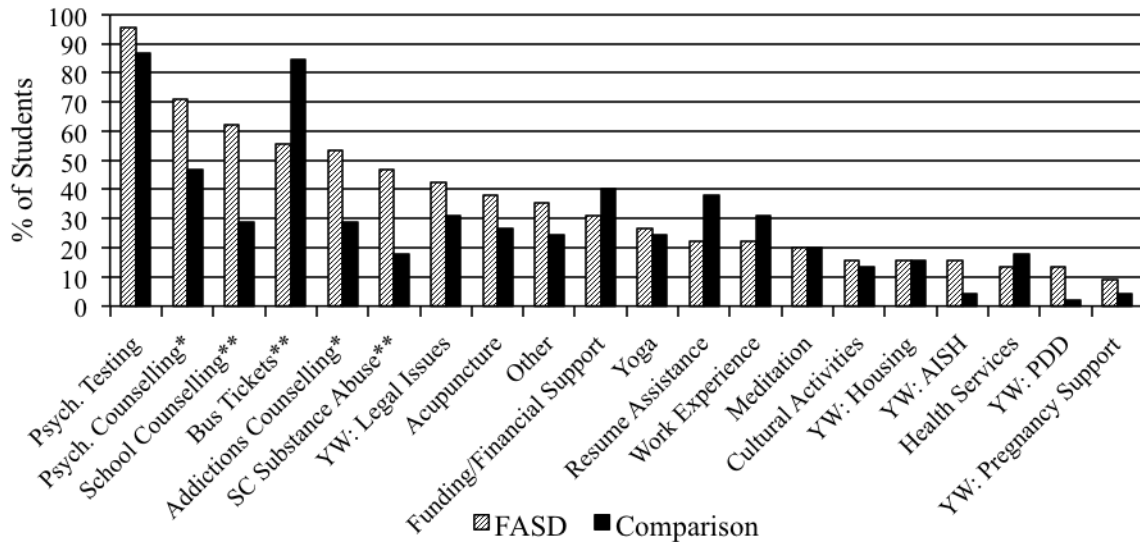


Figure 2. Group differences in service recommendations. (*p < 0.05, **p < 0.01).
 Note. SC = school counseling; YW = youth worker; AISH = Assured Income for the Severely handicapped, which is financial and health-related support provided by the Alberta government for adults with disabilities; PDD = Persons with Developmental Disabilities, which is an Alberta Government funded program offering services and supports for adults with developmental disabilities.

See Figure 3 for service access across groups. The most commonly accessed services for students with FASD were school counseling, psychological testing, and bus tickets, and for students in the Comparison group were bus tickets, psychological testing, and funding/financial support. Students in the FASD group accessed significantly more school counseling and school counseling for substance abuse than the Comparison group, and conversely, students in the Comparison group accessed more bus tickets and funding/financial support than students with FASD.

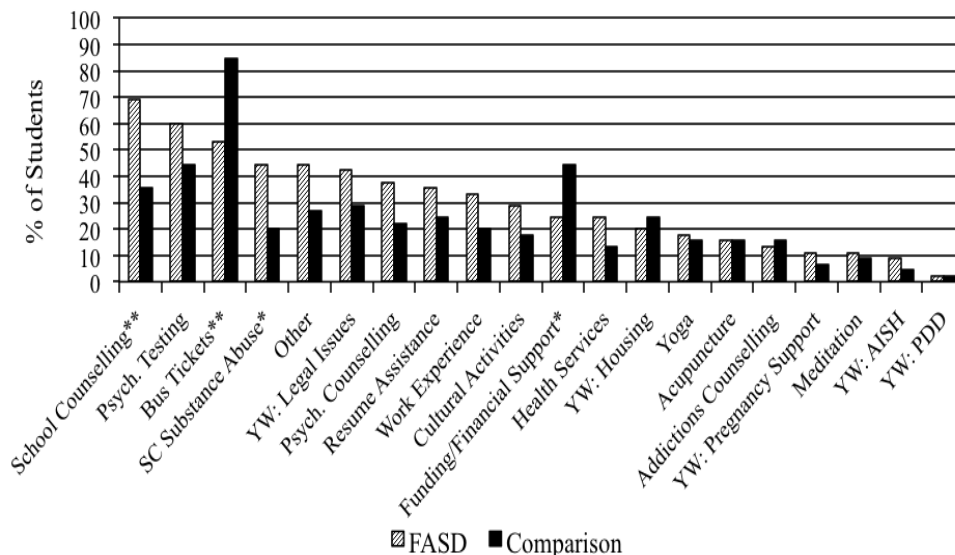


Figure 3. Group differences in service access. (*p < 0.05, **p < 0.01).

Note. SC = school counseling; YW = youth worker; AISH = Assured Income for the Severely handicapped (financial and health-related support provided by the Alberta Government for adults with disabilities); PDD = Persons with Developmental Disabilities (Alberta Government funded program offering services and supports for adults with developmental disabilities).

Gender effects. Gender trends within both groups were examined using one-way ANOVA and Chi-Square analyses. There were no significant gender differences in the FASD group in attendance, service recommendations, service access, mental health comorbidities, or legal issues (all $p > 0.05$). In the Comparison group, males had significantly higher rates of attendance, $F(1, 44) = 5.74, p = 0.021$ and probation status, $X^2(1, N = 90) = 5.81, p = 0.021$, than females, but there were no gender differences in service recommendations or access, mental health co-morbidities, criminal record, or incarceration history.

Factors related to service access. Next, associations were examined between service access, attendance rates, co-morbid mental health diagnoses, and criminal record (thought to be the most broad indicator of history of legal problems), in order to explore whether service utilization related to more positive outcomes (i.e., better school attendance, fewer co-morbidities, less legal trouble). In both groups, students who had better school attendance accessed more services. In the FASD group, students who had more co-morbid diagnoses also tended to access more services (see Table 3).

Table 3. Correlations between service access, attendance, comorbidities, and legal issues.

	Total Attendance	Total # Co-morbidities	Total Service Access	Criminal Record
Total Attendance	--	0.217	0.478**	-.094
Total # Co-morbidities	-.133	--	0.372**	0.116
Total Service Access	.593**	.142	--	0.131
Criminal Record	.105	-.022	-.095	--

Note. FASD group correlations are above the diagonal, Comparison group correlations are below the diagonal. ** $p < 0.01$

Summary and Discussion

In the current study, we explored some of the adverse experiences of YHR with FASD, examined BSEC services, and ascertained whether students with FASD differ in their service referral and access relative to students without FASD. Lastly, we explored the relationship between service access, school attendance rates, mental health diagnoses, and legal issues. The goal was to better understand and characterize the needs of YHR with FASD, and identify what school-delivered services are most common in this group.

Adverse Life Experiences

Youth with FASD presented with a more complex array of needs than youth without FASD. Relative to the Comparison group, more students with FASD experienced unstable living situations including multiple placements at the time of BSEC intake, and a history of living on the streets or in a shelter. Significantly more youth in the FASD group had criminal records and were on probation at the time of BSEC intake compared to students without FASD. Additionally, relative to the Comparison group, youth with FASD experienced higher rates of ADHD, delayed

cognitive functioning, LD, RAD, and ODD.

These findings align with trends found in the broader FASD literature, describing the population as experiencing a “double jeopardy” of risk based on the two-fold insult of PAE and adverse life experiences (Carmichael-Olson, Oti, Gelo, & Beck, 2009). Similarly, our findings indicate that youth with FASD attending BSEC tend to experience risk factors above and beyond students without FASD. This strengthens the call for early interventions and ongoing supports aimed at preventing adverse conditions in this doubly marginalized group. Researchers have previously underscored the necessity of individualized, comprehensive, coordinated, and long-term services to prevent adverse outcomes, particularly during transition to adulthood (Petrenko, Tahir, Mahoney, & Chin, 2014). The current study indicates that this support may be especially critical for YHR with FASD.

BSEC Services and Group Differences

Youth across groups were most commonly referred for psychological testing, bus tickets, and psychological counseling, and most commonly accessed bus tickets, psychological testing, and school counseling. The finding that the most common services for youth largely related to psychological needs aligns with the BSEC approach, where there is high value placed on mental wellness. Determining the current mental state of students both with and without FASD is considered paramount to helping them succeed academically, so that students feel stabilized and education can take place. That said, the high rate of pragmatic supports (i.e., bus tickets) illustrates that basic needs such as transportation may be equally important to address.

Relative to the Comparison group, youth with FASD were more likely to be *referred* for counseling (particularly for addictions and substance abuse) and less likely to be referred for bus tickets. Youth in the FASD group *accessed* more school counsel

ling (especially related to substance abuse) than the Comparison group. Finally, youth with FASD accessed fewer bus tickets, and less financial support than youth without FASD, possibly reflecting supports already provided by other programming based on their FASD diagnoses. It is possible that as needs increase, so too do the possibilities for community partnerships that increase the feasibility of meeting these needs so that one program or organization is not over-burdened.

In general, differences between recommended and accessed services may also be explained by changes in students’ presenting behavior as they become more comfortable at school and build closer relationships with staff. BSEC staff typically make recommendations erring on more concern, and it may become clear over time that a student does not need as intensive of support as initially expected. However, the opposite may also be true, with students who appear stable at intake requiring additional support with time. Either scenario highlights the flexible and adaptable approach that may be important when working with YHR without or without FASD.

Service Access and Related Factors

There were no group differences in school attendance, which speaks to the potential of engaging YHR through specialized services such as those offered at BSEC. Furthermore, in both groups, those with greater attendance used more services. This finding appears to underscore the importance of promoting school attendance in YHR, which may provide them with opportunities to benefit from school resources. The incentives offered at BSEC for attendance may also play a role in increasing student’s use of services. Alternatively, it may be that students are more highly

motivated to attend school when they experience a greater need for support. In either case, the association between attendance and service access illustrates that the school setting is an important potential avenue for service delivery for YHR. Interestingly, within the FASD group only, higher rates of service access were associated with higher rates of mental health co-morbidities. This finding is especially notable given previous literature in the general population, suggesting that youth who experience greater levels of risk perceive services to be less helpful and appropriate (Li, Liebenberg, & Ungar, 2015). For youth with FASD specifically, it is possible that even those with complex presentations may be responsive to seeking and receiving supports when these opportunities are presented.

Limitations and Future Research

One of the limitations inherent in all program-specific research is that the results are not always generalizable to other settings, thus further research with other programs is important. The relatively small sample size of this study further limits its generalizability. Additional research focused on how BSEC services may be implemented in other school or community settings would serve to translate these findings more widely. Another important area for future research relates to the effectiveness of BSEC services as an influence on student outcomes. A longitudinal examination of life experiences among BSEC graduates would provide important information about whether or how outcomes may be related to services they received through the program.

Conclusion

Overall, the results of this study highlight meaningful differences between the life experiences and school-based service access of YHR with and without FASD. YHR with FASD experience more instability and complexity in their presentation and a differing pattern of service referral and access than those without FASD. These results highlight the importance of ongoing identification of FASD, particularly among those youth who experience high risk lives, as early diagnosis has been shown to facilitate advocacy and protect against adverse outcomes (Streissguth, et al., 2004). Services that may be especially relevant for YHR with FASD include ongoing support of complex mental health and addictions issues, assistance navigating the legal system, and stabilization of living environment, extending across the life span. In the FASD group, we presume that most of the differences observed in this study are due to the effects of PAE on the individual's brain, but we must also take into consideration the interaction of these individual factors with the contextual factors of their environment. The additional adversities known to face individuals with FASD may also contribute to the observed group differences, making it complex and challenging to separate the two levels of influence.

The services and programs offered by BSEC are one example of how the school setting may be used to help address students' complex needs, support psychological well-being, and create an environment conducive to learning. BSEC's holistic approach, based on the immediate and comprehensive identification of the unique needs of each student, coupled with ongoing assessment of student functioning, flexible course planning, and robust wraparound services, may be a promising model for supporting YHR both with and without FASD. This approach enables the school to connect youth with services that may not be offered in the standard curriculum, but may nonetheless be foundational for success. Give the lack of FASD-specific interventions for adolescents in general, and those with high-risk

lives in particular, BSEC seems to be filling an important service gap through comprehensive on-site service delivery.

Finally, the results of this study highlight the resiliency of YHR both with and without FASD. The finding that there were no significant differences in attendance for YHR with or without FASD is noteworthy because youth with FASD were often without a home but still coming to school. Furthermore, the majority of YHR with FASD were also accessing services, and the greater their attendance, the more they accessed these services. It appears that YHR with FASD were connecting with various services that they might not otherwise have had access to in the community, which may have the potential to help stabilize these youth and support them in their pursuit of high school education. In spite of the ongoing turbulence and difficulty experienced in many of their lives, it is remarkable that they continue to strive for success.

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