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Therapy-Seeking Behavior among Parents Concerned about their Adolescent's Substance Use

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Abstract

Background: Among the most persistent public health problems in the United States is the gap between adolescents who need therapy for a substance use (SU) disorder and those who seek therapy. The role of parent factors (e.g., impressions of the adolescent's symptoms, socio-demographic factors) has been well-documented in work examining adolescent help-seeking from professionals and para-professionals but has not been evaluated in studies of therapy-seeking for adolescents with SU. This study's primary objective was to identify parent socio-demographic and parent-reported clinical factors associated with therapy-seeking among parents concerned about their adolescents' SU. A secondary objective was to explore reasons why parents reported not seeking therapy and whether these reasons were associated with socio-demographic and clinical variables.

Methods: We conducted a survey of 411 parents of adolescents (age 12-19) who reported elevated concern about their adolescent's SU. Parents were asked whether their adolescent had a history of therapy, and those who reported no history were asked an open-ended question about reasons why they had not sought therapy. Responses were rated by two independent coders and used to sort parents into three groups: "treaters" (those who had sought therapy), "acknowledgers" (those who acknowledged their adolescent had SU problems but did not seek therapy), and "deniers" (those who denied their adolescent had SU problems). Multinomial logistic regression examined the relationship between socio-demographic and clinical factors and group membership.

Results: Multivariate analyses revealed that parent-reported SU severity, internalizing distress, and externalizing behavior problems were all associated with therapy-seeking behavior, with internalizing distress emerging as the strongest predictor. Additionally, Non-Hispanic White parents were more likely to seek therapy than minority parents.

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Author Contributions

Augustine Kang led the manuscript preparation and served as a qualitative coder and principal statistical analyst. Sara Becker was the Principal Investigator of this study who led the original data collection, served as a qualitative coder, drafted the rationale and hypotheses for the study, and led the process of conceptualizing this paper. Katherine Escobar and Lourah Kelly served as qualitative consensus coders. Tonya Tavares was a secondary statistical analyst and study data manager. All authors provided input on the manuscript outline, drafted sections of the manuscript, and revised multiple drafts.

Conclusions: Parent-report of symptoms, especially internalizing distress, and parental race were associated with therapy-seeking behavior, highlighting opportunities for targeted outreach to engage parents in therapy.

Keywords

Parents; therapy-seeking; adolescents; substance use

Among the most persistent public health problems in the United States is the gap between adolescents who need therapy for substance use (SU) and those who receive effective intervention.¹ The National Survey on Drug Use and Health (NSDUH) annually tracks SU prevalence among adolescents ages 12-17 years.² In 2016, 1.1 million adolescents (4.4% of adolescents) met diagnostic criteria for SU disorder: only 89,000 adolescents (8.2% of those with a diagnosis) reported receiving SU therapy at a specialty facility. Untreated adolescent SU often persists into adulthood, increasing the risk of negative consequences including mental health problems, school dropout, legal problems, conflict with family and peers, and unintended pregnancy.¹ Thus, the 1.1 million adolescents with unmet treatment needs represents an enormous missed opportunity to reduce the public health burden of SU.

Through 2013, the NSDUH solicited feedback about reasons for not seeking SU therapy. Primary reasons cited by adolescents were: lack of readiness to stop SU, inability to afford therapy costs, and concern about stigma/negative perceptions.³ While such information is invaluable in understanding factors associated with adolescent therapy-seeking, these data do not consider the central role of parents. Numerous studies have established that parents are critical drivers of decisions related to therapy-seeking, engagement/retention, and utilization.^{4, 5}

The role of parent-level factors (e.g., impressions of adolescent symptoms, socio-demographic factors) has been well-documented in work examining general help-seeking from professionals and para-professionals.^{6, 7} Multiple investigations have found that higher parental education, higher socio-economic status, racial/ethnic majority status, and parental-report of symptom severity were associated with increased help-seeking, though some studies have failed to replicate these results.^{See 8 for a review} Far fewer studies have evaluated the role of parents on therapy-related behaviors among adolescents with SU. An investigation by Dakof and colleagues⁹ of adolescents referred to SU therapy found that higher parental-report of youth externalizing symptoms predicted therapy engagement/retention, while parent socio-demographic variables did not. To our knowledge, no studies have specifically examined factors associated with therapy-seeking among parents concerned about adolescent SU. Identification of such factors is valuable given the well-documented level of unmet need for adolescent SU.

This study's primary objective was to identify socio-demographic and clinical factors associated with therapy-seeking among parents concerned about their adolescent's SU. A secondary objective was to explore various reasons why parents reported not seeking therapy and whether these reasons were associated with socio-demographic and clinical variables. Based on limited prior research, we hypothesized that parents from racial/ethnic minority groups and those with lower education and socio-economic status would be less likely to

seek therapy.^{10, 11} We also expected that parents who reported higher adolescent SU-problems, internalizing distress, and externalizing behaviors would be more likely to seek therapy.⁸ Examination of reasons why parents reported not seeking therapy was exploratory.

Methods

Sampling Strategy

Parents of adolescents were recruited via advertisements shared across behavioral health provider listservs, postings in private parent Facebook groups, emails to parents of Rhode Island high-school students, and community flyers. To qualify, parents had to reside in the United States, be the legal guardian of an adolescent age 12-19 years, and report elevated concern about the adolescent's SU (i.e., score of 4 on a 5-point Likert scale with "1"=*not at all concerned* to "5"=*extremely concerned*). Screening focused on subjective concern about adolescent SU and not objective severity, based on prior studies indicating that subjective impressions of severity motivate therapy-seeking behavior more than objective symptoms.^{12, 13} Advertisements linked to an online screener containing multiple safeguards to ensure accurate reporting: IP address confirmation, superfluous questions to conceal eligibility criteria, cookies to prevent duplicate entries, captcha verification, survey tagging to prevent engine indexing, and items to detect inattentive responses.

Figure 1 depicts survey screening, eligibility, and enrollment rates. Of 849 parents that completed a screener, 499 (59%) were eligible and 411 (48% of total, 82% of eligible) completed the survey. Survey completers answered questions about their history of therapy utilization (study focus); impressions of therapy; preferred methods of provider selection; and ideal therapist.^{4, 12} Parents whose teens had previously received therapy completed additional questions about their most recent therapy experiences. Completers earned \$10-\$20 in Amazon gift cards. Because no identifying information was collected, the study was deemed exempt by the University IRB.

Survey Items

Socio-demographics.—Parents completed socio-demographic questions about their race/ethnicity (coded non-Hispanic White vs. minority), education (coded associates degree or lower vs. bachelor's degree or higher), and income per capita (continuous).

Adolescent mental health and behavior symptoms.—The Global Appraisal of Individual Needs—Short Screener (GAIN-SS) assessed adolescents' mental health and behavior problems across three subscales: internalizing distress (e.g., depression, anxiety, traumatic stress symptoms), externalizing behavior (e.g., conduct and attentional problems), and legal problems (e.g., history of crime or interpersonal violence).¹⁴ Each scale was scored 1 to 5, with higher scores indicating more problems. These scales have demonstrated excellent sensitivity (90%) and specificity (92%) for accurately identifying individuals with a disorder.¹⁸ Internal consistency ($n=15$ items) was good in this sample, $\alpha=.86$.¹⁵

Adolescent substance-related problems.—The Substance Problem Scale (SPS) from the full-length GAIN instrument measured substance-related problems.¹⁵ It has

demonstrated excellent predictive and discriminant validity in prior adolescent samples.¹⁹ The SPS ($\alpha=0.93$) contained 12-items that counted the lifetime presence of symptoms related to SU disorders (e.g., hiding drug use, being unable to reduce drug use, spending time obtaining drugs, etc.).

History of therapy-seeking.—Each adolescent's history of therapy-seeking was evaluated across two items. First, parents read a definition of therapy and answered a screening item asking whether their teenager had ever received therapy. Second, those parents whose adolescents had never received therapy were asked an open-ended question about "the most important reason" why the teen had not received therapy.

Coding of Open-Ended Responses

Open-ended responses to the history of therapy-seeking item were coded by two independent raters (AK/SB) using thematic analysis. Raters read all answers, discussed emergent themes, and jointly developed a code-book containing six major themes. Another two independent raters (KE/LK) coded open-ended responses into thematic categories. Table 1 presents code-book definitions, response distributions, and inter-rater agreement across emergent thematic groups. The largest group contained parents who denied that their teenagers had SU or mental health problems. All other parents acknowledged problems, but reported various attitudinal or logistical barriers to seeking care (e.g., belief problems would resolve on their own, financial obstacles, etc.). We combined thematic groups 2–6 into one group of parents who acknowledged a problem but did not seek therapy ("acknowledgers"; $n=86$), in order to examine whether these parents were meaningfully different than those who denied problems altogether ("deniers"; $n=148$). We compared both these groups to parents who had sought therapy ("treaters"; $n=177$), as shown in Figure 1.

Analysis Plan

Exploratory data analysis examined variable distributions, and normality assumptions were met for all variables. Preliminary analyses using ANOVA and loglinear analysis examined univariate associations to determine group differences on key parent variables (parent-reported symptoms, education, income per capita, race/ethnicity). Though this study focused on parent variables, we also examined differences by adolescent biological sex and age, as these variables have predicted help-seeking in prior work⁸. No significant univariate differences were observed; hence adolescent variables were excluded in multivariate analysis.

Multinomial logistic regression was used to model the nominal outcome variables (group membership) to provide odds ratios via multivariate linear combination of variables significant in univariate analysis. Two models were used to effectively examine all contrasts among the three qualitatively-derived groups. As a final exploratory step, we collapsed "deniers" and "acknowledgers" into a single group and compared "treaters" versus "non-treaters" to see if the distinction between acknowledged and deniers added value.

Results

Sample characteristics

Parents ($n=411$) were predominantly female (86%) and Non-Hispanic White (88%). Per parent-report, adolescents were 51% female, 82% Non-Hispanic White with an average age of 16.1 years ($SD=1.8$). Most parents had a Bachelor's degree (67%) and median income per capita was \$25,000. Based on parent-report, adolescents had significant externalizing behavior (61%), internalizing distress (51%), SU problems (39%), and legal problems (25%). Combined, 78.1% of parents reported their teen had at least one of these problems, 57.5% reported two or more problems, and 31.6% reported three or more problems. Parents in the "treaters" group ($n=175$) reported that their adolescent's prior therapy was primarily for mental health (75%), SU (5%), or both mental health and SU (20%). Thus, although recruitment prioritized SU concern, the final sample had high rates of mental health problems and therapy experiences were predominantly related to mental health concerns.

Three-Group Analysis

We first conducted univariate analyses with the three qualitatively-derived groups. "Treaters" differed from both "deniers" and "acknowledgers" across race and externalizing and internalizing scores, and differed from "deniers" on legal, SU, and income per capita. "Deniers" and "acknowledgers" differed on all parent-reported symptoms and parental education (Table 2).

Multinomial logistic regression examined the relationship between predictors and membership in the three groups. The model was statistically significant $\chi^2(14,407)=200.20$, $p<.001$, Nagelkerke $R^2=.442^a$. Table 3 displays significant unique contributions. Internalizing distress was the strongest predictor.

Table 4 presents parameter estimates and paired contrasts. SU-problems, internalizing distress, externalizing behavior, and race/ethnicity were all significant predictors. Increased parent-reported severity was associated with greater likelihood of being in the "treaters" group: the only exception was SU-problems in which parents who reported higher SU problems were most likely to be "acknowledgers". Non-Hispanic White parents were more likely to be "deniers" than in the other two groups. Of the significant differences between "acknowledgers" and "deniers" in the univariate analyses, only SU problems remained significant in the multivariate model.

Two-Group Analysis

Further analysis was conducted with "acknowledgers" and "deniers" regrouped as "non-treaters" to examine predictors of therapy-seeking. The pattern of univariate results was similar, with "treaters" reporting significantly higher parent-reported legal, externalizing, internalizing, and SU-problems (p 's $<.001$). "Treaters" were also more likely to identify as Non-Hispanic White ($p=.029$) (Table 5). In multivariate binomial logistic regression,

^aBoth models have the same χ^2 value since only the reference group differed

increased externalizing and internalizing scores predicted odds of being “treaters” (both $p < .001$), and racial/ethnic minority status predicted odds of being “non-treaters” ($p = .009$).

Discussion

Consistent with hypotheses, different parent-reported symptoms and parental socio-demographic factors predicted whether parents concerned about their adolescent’s SU sought out therapy, as well as whether parents acknowledged problems among their adolescents but did not seek therapy. When examined individually, all the hypothesized predictors were associated with therapy-seeking behavior and effects were generally in expected directions with parent-reported symptoms predicting both acknowledgment of a problem and therapy-seeking.

In both the three-group and two-group multivariate models, parent-reported internalizing distress, externalizing behaviors, SU-problems, and racial/ethnic minority status all predicted therapy-seeking group membership. Of the adolescent symptom variables, parent-reported internalizing distress was the strongest predictor. This contradicts previously reported research by Dakof and colleagues, who reported that externalizing behaviors were more important than internalizing symptoms in predicting engagement in adolescent SU therapy.⁹ One possible explanation is that internalizing symptoms may be more important in predicting initial therapy-seeking, whereas externalizing symptoms may be more important in promoting engagement/retention. Another explanation may be the unique characteristics of our sample, which had higher rates of mental health problems than SU problems, as well as higher rates of mental health therapy-seeking. It is possible that internalizing distress is a more important predictor of mental health therapy-seeking while externalizing distress is a more important predictor of SU therapy-seeking.

Parent racial/ethnic minority status emerged as the sole parent demographic predictor in both the three-group and two-group models. Overall, we found that Non-Hispanic White parents were more likely to seek therapy than racial/ethnic minority parents, regardless of whether parents acknowledged their adolescent’s problems. This finding is consistent with well-documented mental health and SU service disparities among racial/ethnic minorities.^{16, 17} In order to achieve parity in service delivery among minority youth, researchers and providers alike must consider strategies to help overcome barriers (e.g., stigma, health literacy, barriers, cultural norms) that disproportionately deter minority parents from seeking therapy for their adolescents.¹⁸

Finally, differences between acknowledged and deniers in the three-group model warrant discussion. Although many differences emerged in univariate analysis, the only difference remained significant in the multivariate model was SU problems. Parents in the “acknowledgers” group reported higher SU problems than those in the “deniers” group: this suggests that, unlike internalizing and externalizing symptoms, more severe SU-problems may be insufficient to prompt parents to seek therapy. This distinction has important clinical implications and suggests that SU problems alone may be insufficient to prompt therapy-seeking, potentially due to attitudinal and logistical barriers.

Overall, we found a highly similar pattern of results in our three-group and two-group models. This similarity suggests that the examination of “acknowledgers” as a separate group added minimal utility over the examination of “treaters” versus “non-treaters.”. Future intervention efforts should therefore prioritize exploring parental differences between therapy-seekers and non-seekers.

Limitations

Results are affected by limitations. First, although we aimed to explore factors associated with SU therapy-seeking, the final sample had higher rates of mental health therapy-seeking. Consistent with national survey data, our findings revealed extremely low rates of therapy seeking specifically for SU. Thus, our current results should not be framed as identifying factors associated with “SU therapy seeking” per se, but rather as elucidating factors related to therapy seeking among parents concerned about their adolescents’ SU. Second, this survey was completed by a convenience sample and may not be representative of all parents concerned about their adolescent’s SU. Our sample of parents was reasonably well-educated, earned incomes above the national poverty line and predominantly Non-Hispanic White. Yet even within this convenience sample, important group differences emerged as a function of race/ethnicity and income per capita, suggesting that these are important variables to consider in future, more representative samples. Third, due to our focus on parent subjective impressions, we relied on parent-report of adolescent clinical symptoms. Results may not generalize to objective measures of adolescent symptoms. Finally, we identified several important reasons why parents did not seek therapy (e.g., financial, organizational) and due to small sample sizes collapsed the reasons in our analysis. Future investigations could examine whether these specific reasons for not therapy-seeking vary as a function of parent-reported symptoms and socio-demographic variables.

Clinical Implications

The present study identified measurable parent-level factors that influence therapy-seeking among adolescents with SU concerns and therefore have concrete clinical implications for engaging parents. Recent work by our team and others has discussed the importance of proactive parent-directed strategies such as universal screening and direct-to-consumer marketing initiatives to promote increased utilization of therapy for adolescent SU.^{4, 19, 20} Our study suggests that such attempts should potentially target parents from racial/ethnic minority groups and those who might be beginning to notice internalizing distress, externalizing behaviors, and SU symptoms. In addition, our results suggest that parents concerned about SU are more likely to seek therapy for mental health than SU. This suggests that any parent-directed strategies should emphasize the substantial co-occurrence of mental health and SU (e.g., through screening tools and direct-to-consumer marketing materials focused on both conditions) as a means of promoting therapy-seeking for SU.

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Declaration of Interest

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Figure 1.
Study Recruitment Flow

Qualitative Analysis Results

Table 1.

Coding Dimension	Definition	Example Quote	N	Interrater Reliability
Parent Denies Problem	Parent denies evidence of substance use or mental health issues (e.g., adolescent does not use substances and does not need therapy)	<ul style="list-style-type: none"> • “Has not shown that she is using any substances.” • “My son has never used drugs, nor has he had mental health issues.” 	148	94%
Parent Not Certain Therapy Needed	Adolescent is using or experimenting with substances or parent references specific mental health issues, but parent is not certain therapy is needed (e.g., adolescent only uses occasionally, parent hopes problems will resolve on their own)	<ul style="list-style-type: none"> • “This is a new problem and I don’t know how often or how big the problem is.” • “I hope that I could help her reduce, even stop, using marijuana” 	53	94%
Financial Barriers	Reported financial barrier to therapy (e.g., too expensive, insurance does not cover, cannot afford)	<ul style="list-style-type: none"> • “Don’t have insurance/can’t afford it” • “Money. No insurance” 	6	100%
Negative Impressions of Therapy	Parent and/or child does not believe in therapy or effectiveness, or parent makes negative comments about it (e.g., not sure it would work for them, concerned about stigma)	<ul style="list-style-type: none"> • “Not sure how effective it would be” • “She feels there is a stigma attached to seeing a mental health professional” 	7	75%
Teen Refusal	Parent reports that teen refused to attend (e.g., parent tried but could not get teen to attend)	<ul style="list-style-type: none"> • “He does not want to go and feels he is ok” • “I can’t find a way to make him go. He doesn’t trust adults.” 	13	100%
Organizational barriers	Parent reports logistical issues related to the clinic or agency (e.g., waitlists too long, scheduling problems, inconvenient location)	<ul style="list-style-type: none"> • “Network of providers limited. Hard to schedule with a provider during crisis” • “It took 3 months for the center to even setup an appointment.” 	6	75%

Note. Frequency counts cover 233 parents who reported no history of therapy and then answered an open-ended question about reasons for not seeking therapy. An additional 19 parents (less than 5% of the sample) reported no history of therapy but then clearly described a history of therapy in their open-ended responses. These parents were re-classified into the “treaters” group

Table 2.

Three-group comparison of descriptives and frequencies

Predictor	Overall (N = 407) M±SD or n(%)	Treaters (N = 175) M±SD or n(%)	Acknowledgers (N = 85) M±SD or n(%)	Deniers (N = 147) M±SD or n(%)
Legal	0.32 ± 0.57	0.49 ± 0.64 ²	0.36 ± 0.64 ³	0.08 ± 0.30 ^{2,3}
Externalizing	1.70 ± 1.57	2.45 ± 1.54 ^{1, 2}	1.73 ± 1.51 ^{1,3}	0.79 ± 1.10 ^{2,3}
Internalizing	1.32 ± 1.61	2.19 ± 1.74 ^{1,2}	1.09 ± 1.38 ^{1,3}	0.42 ± 0.86 ^{2,3}
Substance Use (Lifetime)	0.86 ± 1.29	1.21 ± 1.51 ²	1.31 ± 1.21 ³	0.19 ± 0.57 ^{2,3}
Income per capita	\$25383 ± \$14252	\$24,127 ± \$13,820 ²	\$24,618 ± \$14,604	\$27,321 ± \$14,438 ²
Parental Education (Associates or less)	137 (33.5%)	59 (33.5%)	35 (41.2%) ³	43 (29.1%) ³
Parent Race (Non-Caucasian)	49 (11.9%)	14 (7.9%) ^{1,2}	15 (17.4%) ¹	20 (13.5%) ²

Note. Columns with same superscript denote groups differed significantly at $p < .05$. Analysis included 407 parents due to four parents with incomplete data.

¹ Treaters vs. Acknowledgers,

² Treaters vs. Deniers,

³ Acknowledgers vs. Deniers.

Between group differences compared using Fisher's LSD test via ANOVA for continuous dependent variables and loglinear analysis for categorical variables using helmert and reverse helmert contrasts

Table 3.

Predictors' Unique Contributions to Three-group Multinomial Logistic Regression Models

Predictor	χ^2	df	P
Legal	1.31	2	.520
Substance Use	37.64	2	<.001 *
Externalizing	15.13	2	.001 *
Internalizing	39.56	2	<.001 *
Income	0.43	2	.806
Parental Education	2.06	2	.357
Parental Race	7.40	2	.025 *

Note.

* Statistically significant.

Analysis included 407 parents due to four parents with incomplete data

Table 4.

Three-Group Analysis: Parameter Estimates of Contrasts

Predictor	Group Contrast	<i>B</i>	OR	95% CI (OR)	<i>p</i>
<i>Legal</i>	Treaters v. Deniers	-.371	.690	.320, 1.487	.344
	Treaters v. Acknowledgers	-.268	.765	.416, 1.404	.387
	Acknowledgers v. Deniers	-.103	.902	.388, 2.101	.812
<i>Substance Use</i>	Treaters v. Deniers	-.840	.432	.287, .650	.001*
	Treaters v. Acknowledgers	.310	1.363	1.056, 1.760	.017*
	Acknowledgers v. Deniers	-1.150	.317	.208, .483	<.001*
<i>Externalizing</i>	Treaters v. Deniers	-.458	.632	.500, .800	<.001*
	Treaters v. Acknowledgers	-.167	.846	.671, 1.068	.160
	Acknowledgers v. Deniers	-.291	.747	.575, .970	.029*
<i>Internalizing</i>	Treaters v. Deniers	-.647	.524	.406, .675	<.001*
	Treaters v. Acknowledgers	-.488	.614	.491, .768	<.001*
	Acknowledgers v. Deniers	-.160	.853	.636, 1.143	.286
<i>Income</i>	Treaters v. Deniers	-.005	.999	.997, 1.001	.525
	Treaters v. Acknowledgers	.004	1.001	.999, 1.001	.900
	Acknowledgers v. Deniers	-.009	.999	.999, 1.001	.642
<i>Parental Education</i>	Treaters v. Deniers	-.238	.788	.395, 1.571	.498
	Treaters v. Acknowledgers	-.498	.607	.307, 1.201	.152
	Acknowledgers v. Deniers	.260	1.297	.626, 2.688	.484
<i>Parental Race</i>	Treaters v. Deniers	-1.191	.514	.111, .833	.021*
	Treaters v. Acknowledgers	-1.071	.343	.135, .867	.024*
	Acknowledgers v. Deniers	-.120	.887	.358, 2.201	.796

Note.

* Statistically significant. Analysis includes 407 parents due to four parents with incomplete data.

¹To effectively obtain all combinations of contrasts, two multinomial regression models were run: with treaters used as the reference group in the first, and acknowledgers used as the reference group in the second.

Table 5.

Two-group comparison of descriptives and frequencies

Predictor	Overall (N = 407) M±SD or n(%)	Treaters (N = 175) M±SD or n(%)	Non-Treaters (N = 232) M±SD or n(%)	P
Legal	0.32 ± 0.57	0.49 ± 0.64	0.18 ± 0.47	<.001*
Externalizing	1.70 ± 1.57	2.45 ± 1.54	1.14 ± 1.34	<.001*
Internalizing	1.32 ± 1.61	2.19 ± 1.74	0.67 ± 1.12	<.001*
Substance Use (Lifetime)	0.86 ± 1.29	1.21 ± 1.51	0.60 ± 1.02	<.001*
Income per capita	\$25383 ± \$14252	\$24,127 ± \$13,820 ²	\$26,330 ± \$14,526	.123
Parental Education (Associates or less)	137 (33.5%)	59 (33.5%)	78 (33.5%)	.992
Parent Race (Non-Caucasian)	49 (11.9%)	14 (7.9%)	35 (15.0%)	.029*

Note. Analysis included 407 parents due to four parents with incomplete data.

Between group differences compared using independent samples t-test for continuous dependent variables and chi-square analysis for categorical dependent variables.