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Assessing and Treating Co-occurring Disorders in Adolescents: Examining Typical Practice of Community-Based Mental Health and Substance Use Treatment Providers

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Abstract

Co-occurring mental health and substance use disorders in adolescents are common. However, limited efforts have been directed at understanding how treatment providers in community settings deal with this frequent challenge. In this study, treatment providers from both substance use and mental health settings were interviewed to examine their common practices regarding the assessment and treatment of co-occurring depression and substance use disorders in adolescence. About 93% of treatment providers reported treating adolescents with these co-occurring conditions. However, few providers reported using formal assessment practices (23–30%) or treatment protocols for co-occurrence (10%). Providers in mental health settings (particularly psychologists) were more likely than those in substance use settings to formally assess for depression [$X^2(1, N = 30) = 3.62$, $P = .065$] but less likely to do so for substance use [$X^2(1, N = 30) = 9.46$, $P = .004$]. Findings are considered with regard to implications for assessment and treatment outcomes in this high-risk population.

Keywords

Co-occurring; Substance use; Community-based; Assessment; Treatment

Introduction

The therapist was conducting an intake with Juan and his mother. Both had listed practical, reasonable goals for treatment—to decrease conflict at home, to go back to school, to decrease Juan's angry and sometimes violent outbursts. To an observer it seemed as if much had been covered, and that the intake would soon wrap up. However, the seasoned therapist stated, “Juan, these are great goals, and I'm glad you've been honest so far. But what about drinking or smoking pot? We haven't talked about that at all.” Juan then admitted that he had been using marijuana as often as ten times per day.

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As many as 75% of adolescents with substance use disorders have co-occurring psychiatric conditions (Armstrong and Costello 2002; Shrier et al. 2003; Winters 1999). This co-occurrence exacts a heavy toll on adolescents, their families, and their communities. The presence of both substance use and mental health concerns place teenagers at risk for a range of problems, from fatal traffic accidents (Winters 1999) to high-risk sexual behavior (Brown et al. 2006) and school drop-out (Weinberg and Glantz 1999). The relationship between substance use and externalizing behavior is well-documented, but more attention needs to be paid to the substantial risks engendered by the co-occurrence of substance use and internalizing disorders. For instance, depression and substance use—particularly in combination—serve as primary risk factors for adolescent suicide (Shaffer et al. 1996). Indeed, Esposito-Smythers and Spirito (2004) estimated that the risk for attempting suicide increased threefold for adolescents with significant substance use concerns. Furthermore, the combination of internalizing problems with substance abuse and delinquency has been shown to increase the risk for aggressive and high-risk criminal behavior in early adulthood (Clingempeel et al. 2008). In addition, several studies have demonstrated that co-occurring mental health disorders and substance use can complicate the treatment process and negatively affect outcomes in both areas (Grella et al. 2001; Kaminer et al. 1992). Comorbid adolescents generally show poorer treatment outcomes, more frequent treatment dropout, and higher rates of relapse (Cornelius et al. 2004; Winters 1999).

Clearly, co-occurring internalizing and substance use problems have the potential to more strongly influence both life outcomes and treatment for adolescents than either problem alone. However, in the United States the substance use (alcohol and illicit drugs) and mental health systems have historically been discrete entities with minimal coordination or collaboration between them (Grella 2003). Substance use issues are often not assessed or addressed in outpatient psychotherapy (Carey and Correia 1998). Moreover, even when problems with substance use are identified, most general practice psychotherapists are not trained to treat them (Amodeo 2000). As a result, issues related to substance use often go unrecognized and untreated. In a study conducted by Deas-Nesmith et al. (1998), approximately 30% of adolescents admitted to a psychiatric inpatient unit met criteria for at least one substance use disorder (alcohol and/or illicit drugs), yet not one of these adolescents was given a substance use diagnosis by his/her outpatient treatment provider. In a similar vein, substance abuse treatment professionals are frequently not well-trained in treatment of mental health concerns (Grella 2003). With a dearth of well-controlled studies, it is clear that current practice in assessment and treatment of co-occurring depression and substance use in adolescents deserves increased scrutiny from both scholars and practitioners.

While there have been studies of treatment practices in community settings, previous research in the practice of assessment in community settings is scant. Surveys of assessment practices thus far have tended to focus on utilization of specific instruments (i.e., which measures are used most frequently) by psychologists in private practice or schools (Cashel 2002; Kamphaus et al. 2000). Only one study was located that examined the extent to which community practitioners of multiple disciplines are assessing clients as part of regular practice. Frauenhoffer et al. (1998) found that doctoral-level psychologists were more likely than master's-level clinicians to use formal assessment procedures. Other studies have suggested that formal assessment is by no means universal (Anderson and Paulosky 2004; Cashel 2002). But no studies appear to have focused specifically on assessment for co-occurring disorders in the community. This study, then, offers an examination of assessment and treatment practices for adolescents with co-occurring disorders in community settings.

Methods

Description of Present Study

The present study sought to assess providers' typical practice regarding substance use and mental health assessment and treatment for adolescents. Providers from both primarily mental health and primarily substance use community treatment settings were interviewed to understand how often these providers assessed and treated co-occurring disorders, and to understand whether there were differences between these two groups. The goal of the present study was to address the following questions: Do treatment providers use formal assessment measures? Do providers make use of treatment protocols for comorbid adolescents? Are there differences between mental health and substance use providers in their use of formal assessment or treatment practices? Finally, what opportunities are there for training to improve assessment and treatment practices for adolescents with co-occurring substance use and mental health problems?

Procedure

Outpatient treatment providers were recruited from one primarily substance use treatment center and two primarily mental health treatment centers. All centers focused on child and adolescent treatment. The centers, located in a mid-sized city in the Northeastern United States, were approached to participate based on author knowledge of their treatment services. Structured interviews were administered by a trained masters-level research assistant with 30 providers. Providers were asked a series of questions including demographic information, types of services provided, perceptions of outcomes, and views on evidence-based practice. As substance use and internalizing disorders were the focus of this study, providers were asked specifically about practices regarding depression, substance use, and their co-occurrence. They were asked if they “formally assessed” for depression or substance use, and prompted with examples such as “self-report measures or diagnostic assessments”. Participants were asked to specify any instruments or protocols if they indicated that they did use formal measures. Interviews lasted approximately one hour. The study was approved by the university Institutional Review Board, and all providers provided written informed consent to participate. Providers were compensated for their participation. No known conflicts of interest exist in this study.

Statistical Analyses

Initial frequency data were compiled through a frequency analysis in SPSS Inc. (2009). To address differences between treatment settings, treatment providers were compared by group (mental health versus substance use) across a range of demographic and service areas. To analyze significance of differences in their responses, Pearson Chi-Squares were employed, using Fisher's Exact Test to correct for small cell sizes (using one-tailed significance). Due to the small sample size, an R statistic was calculated to estimate effect size.

Results

Participants

Nineteen of the treatment providers worked in a mental health setting and eleven were employed in substance use treatment settings. Substance use treatment providers were more likely than mental health providers to be European- American [$X^2(1, N = 30) = 5.29$, Fisher's Exact $P = .03$], and as expected, were more likely to be currently certified in addictions treatment [$X^2(1, N = 30) = 9.46$, Fisher's Exact $P<.01$]. Of substance use providers, three were social workers, five had counseling degrees, and the remainder were licensed in chemical dependency or mental health counseling. Nine of 19 mental health treatment providers (47%) were social workers, with 5 of these being licensed. The mental

health provider group also had four psychologists; other disciplines represented included nursing, Licensed Mental Health Counseling, early childhood, counseling, case management, and marriage and family therapy. Mental health treatment providers were significantly more likely to be psychologists or licensed social workers [$X^2(1, N = 30) = 7.44$, Fisher's Exact $P = .01$] but were not significantly more likely to be licensed overall (once licenses in chemical dependency and mental health counseling were included) [$X^2(1, N = 30) = 1.82$, n.s.]. Otherwise, there were no significant differences between providers in terms of gender [$X^2(1, N = 30) = 0.66$, n.s.], level of education [$X^2(1, N = 30) = 0.15$, n.s.], time at present job (Mental health mean = 7+/−6 years; Substance use mean = 5+/−5 years; $F(1) = 0.29$, n.s.), years of experience (Mental health mean = 13 +/−8 years; Substance use mean = 14 +/−11 years; $F(1) = 0.02$., n.s.); or patient hours per week (Mental health mean = 23 +/−7; Substance use mean = 22 +/−13; $F(1) = 0.04$, n.s.).

Assessment and Treatment: Sample as a Whole

Results indicate that most treatment providers do not use formal assessment practices. Nine out of 30 (30%) providers reported screening for depression, and 7 out of 30 (23.3%) reported formal screening of substance use. However, providers almost universally reported treating co-occurring disorders in adolescents (28 out of 30, 93%). In contrast, only 3 of 30 (10%) reported using specific treatment protocols for co-occurring concerns in adolescents. Notably, providers almost universally (29 of 30, 97%) reported that they *would* use an intervention specifically intended to treat co-occurring conditions in adolescents, and suggested they would have an average of eight hours (mean = 7.9) for training in such an intervention. Eighteen of 30 (60%) treatment providers reported funds were available at their clinic for outside training.

Assessment and Treatment: Group Differences

Treatment providers in mental health settings more commonly assessed for depression than did substance use providers. Eight out of 19 (42.1%) mental health providers formally assessed; in contrast, only 1 of 11 (9.1%) substance use therapists did so [$X^2(1, N = 30) = 3.62$, Fisher's Exact $P = .065$]. The effect size r value for this comparison was .28, which would be classified as a medium effect (Cohen 1988). One out of 19 (5.3%) mental health providers formally assessed substance abuse, whereas 6 out of 11 (55.5%) substance use providers did so [$X^2(1, N = 30) = 9.46$, Fisher's Exact $P = .004$]. The effect size r value for this comparison was .47, which would be classified as a large effect. Comparing providers on the treatment variables, 100% of mental health providers (19 of 19) and 82% of substance use providers (9 of 11) reported that they treat adolescents with co-occurring substance use and depression [$X^2(1, N = 30) = 3.71$, Fisher's Exact Test was nonsignificant; $P = .126$]. The effect size r value for this comparison was .22, which would be classified as a small to medium effect. Similarly, whereas 3 of 19 (16%) mental health providers reported using a specific treatment protocol for co-occurring diagnoses, none (0 of 11) of substance use providers reported doing so [$X^2(1, N = 30) = 1.93$; Fisher's Exact Test was nonsignificant; $P = .239$].

Analyses also investigated whether discipline, which differed significantly between sites, may have been responsible for the observed effects. Previous research had suggested that psychologists, who are more likely to be trained in formal assessment, might be more likely to formally assess clients (Frauenhoffer et al. 1998). Results supported this only partially—psychologists were more likely to formally assess for depression [$X^2(1, N = 30) = 10.77$, Fisher's Exact $P = .005$] but not for substance use (no psychologists formally assessed for substance use). As the site that had the most psychologists was also significantly more likely to formally assess for depression [$X^2(1, N = 30) = 6.71$, Fisher's Exact $P = .018$], it is possible that observed site or type of setting effects for depression assessment were due to

the preponderance of psychologists at one setting. However, the differences between settings in substance use assessment appear to be independent of level of training or discipline.

Discussion

This study examined similarities and differences between mental health and substance use treatment providers in their assessment and treatment of adolescents with co-occurring depression and substance use problems. Three findings stood out. First, provider use of formal assessment/screening methods appears fairly low. Only 30% of all providers in this sample reported formally screening for depression, although mental health providers were four times more likely to do so than substance use providers. Psychologists appeared more likely than other provider disciplines to assess for depression (but not for substance use). Even fewer treatment providers (23%) formally screened for substance use, although substance use providers were ten times more likely to do so than mental health providers. Second, even though a minority of providers reported assessing for co-occurring mood and substance use disorders, nearly all (93%) of the therapists surveyed suggested that they were treating these co-occurring disorders. Finally, very few (10%) providers reported using specific treatment protocols to treat co-occurring conditions in adolescents. The implications of each of these findings will be considered before discussing limitations and conclusions.

That a small number of treatment providers reported using formal assessment measures (e.g., self-reports, structured interviews, etc.) should not be surprising. Standard practice in mental health settings is to conduct an informal or unstructured “clinical interview” to generate diagnostic information and determine a basic treatment plan. Furthermore, concerns have been raised about appropriate training for community providers in conducting psychological assessment (Frauenhoffer et al. 1998). However, there are potentially significant problems with reliance on the clinical interview for assessment. Chief among these is the notion that the diagnosis may be incorrect, or that a primary diagnostic emphasis is given to a condition that is not in fact the most pressing concern. This possibility of misdiagnosis may have important treatment and outcome implications. Jensen-Doss and Weisz (2008) studied children and adolescents in outpatient mental health care, and found that diagnostic agreement (between the clinical diagnosis and a research-generated diagnosis) predicted fewer treatment no-shows, cancellations, and drop-outs. Those with “disagreement” were more than five times more likely to drop out of treatment against clinician advice. The authors also found some evidence to suggest poorer treatment outcomes for adolescents with diagnostic mismatch. Thus, therapist reliance on informal methods of assessment may result in less positive treatment outcomes for adolescents. When substance use and depression are involved—both risk factors for suicide—misdiagnosis could have serious treatment implications.

More specific to this study, results indicate that treatment providers were especially unlikely to formally assess for disorders outside of their main area of expertise. That is, only one mental health provider reported formal screening for substance use, and only one substance use provider reported formal screening for depression. In addition, mental health providers who were not psychologists were also not likely to formally assess for depression. Not only does this underscore the possibility of diagnostic error or mismatch, but it points to specific subpopulations of adolescents who may not be well served by their treatment providers. On the one hand, mental health providers may be missing substance use by adolescents who present with other behavioral or emotional concerns. This could lead to significant problems in treatment. For instance, Kramer et al. (2003) found that adolescents with undetected substance use were less likely to receive substance use services and were more likely to experience legal problems at a 6-month follow-up than were adolescents with detected substance use. On the other hand, depressive or possibly even suicidal symptoms might be

undetected by those in substance use (or mental health) settings, which could have similarly negative implications for those adolescents. In general, the lack of cross-setting assessment seems especially noteworthy given that mental health disorders are estimated to occur in two out of every three adolescents abusing substances (Armstrong and Costello 2002). Both substance use and mental health treatment providers should be *routinely* screening for co-occurring conditions in their adolescent populations.

In contrast to the above findings, nearly all treatment providers surveyed reported treating co-occurring depression and substance abuse conditions. However, only 10% of providers reported using a specific treatment protocol for these co-occurring problems in adolescents. These data are concerning for several reasons. First, it is possible that many adolescents with co-occurring conditions are being treated only for one condition (e.g., depression or substance abuse), or are not having primary concerns addressed, despite the fact that their provider treats comorbidity in some fashion. The second major concern with these data involves the prospective outcomes of treatment. There is evidence to suggest that several specific therapeutic approaches (e.g., ecological family therapy, cognitive-behavioral therapy, and brief motivational interventions) have shown superiority to treatment as usual in studies of adolescent substance use (Becker and Curry 2008). As many of these approaches have also shown success in treating other adolescent mental health concerns, it is likely that providers could have increased success in treating comorbid conditions in adolescents if such evidence-based treatment approaches were in wider application. Clinic operating procedures do not seem to be a barrier to training in such approaches, as most treatment providers suggested that there was time and funding available for at least initial training in evidence-based approaches for co-occurring disorders.

There are several limitations to the present study. Most prominent is the small sample size, which makes detecting significant effects and generalization to the broader population of treatment providers difficult. However, the data gathered on the sample suggests that it included treatment providers with a broad range of background and experience. To examine the possibility that non-significant effects were a result of low power from a small sample, and to estimate the strength of findings reported here, effect sizes were calculated. Where group differences were found, medium to large effects were reported. Another limitation involved the breadth and specificity of questions on current assessment and treatment practices. Specific protocols or assessment tools were not mentioned by name, potentially limiting the accuracy of participant responses. Nonetheless, if participants reported that they did use such tools, they were asked to name the specific instruments or protocols. Additional probing of the extent to which informal assessment procedures are used versus none at all, or obtaining corroborating evidence of therapist-reported practices would produce a more detailed picture of the state of current practice regarding co-occurring conditions in adolescents.

In the future, it would be helpful for researchers to conduct a broader, population-based survey of current assessment and treatment practices of community-based substance use and mental health treatment providers. Such work could illuminate how widespread the use of evidence-based practice in assessment and treatment really is. Further, those who develop and market evidence-based assessment instruments and treatment protocols may consider how these products would be used in busy community settings, and whether barriers exist to their widespread adoption (e.g., Camara et al. 2000). Without a better understanding of the perspective and context of community-based providers, it is unlikely that new evidence-based practices will be commonplace.

Despite its limitations, this study makes a simple yet important point: community-based mental health and substance use treatment providers are not adequately assessing for co-

occurring mental health and substance use disorders among adolescents. Furthermore, they are rarely using treatment protocols (evidence-based or otherwise) for adolescents with multiple problems. Most therapists have the best of intentions, and indeed nearly all reported that they would utilize a specific intervention for co-occurring substance use and depression at their clinic. Thus, it is crucial to develop and offer training and tools for adolescent treatment providers to address co-occurring depression and substance use.

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