Children and Youth Services Review 71 (2016) 191–198

Contents lists available at ScienceDirect

Children and Youth Services Review

journal homepage: www.elsevier.com/locate/childyouth

Predictors of treatment utilization among adolescents with social anxiety disorder

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ARTICLE INFO

Article history:
Received 3 August 2016
Received in revised form 7 November 2016
Accepted 9 November 2016
Available online 10 November 2016

Keywords:
Social anxiety disorder
Adolescence
Service utilization
Barriers to treatment
Comorbidity

ABSTRACT

Social Anxiety Disorder (SAD) is a highly prevalent, yet frequently undetected and untreated, psychological disorder. In adolescents, when untreated, SAD often follows a chronic course and is associated with social impairment, poor educational attainment, diminished quality of life, and high rates of comorbidity. Barriers to treatment include low socioeconomic status, minority status, difficulty in detecting internalizing symptomatology, and poor public awareness of the nature and signs of SAD. The present study aimed to identify the predictors of treatment utilization for SAD adolescents among a nationally representative sample of adolescents. A hierarchical logistic regression was performed with demographic variables entered in the first block, comorbid mood, anxiety, eating, and substance use disorders entered in the second block, and comorbid externalizing disorders entered in the final block. Results of this study indicate that lower rates of receiving treatment were predicted by Hispanic ethnicity and extreme poverty, while higher rates of receiving treatment were significantly predicted by the presence of comorbid diagnoses, including depression, another anxiety disorder, and an eating disorder in adolescents with SAD. The presence of comorbid ADHD was a significant predictor of service receipt over and above other comorbid disorders and sociodemographic variables. The results highlight priorities for expanded healthcare policy to improve recognition of and service use for SAD and identify key aspects of research to be further developed.

1. Introduction

Social Anxiety Disorder (SAD) is characterized by a marked and persistent fear of being observed or scrutinized by others (American Psychiatric Association, 2013). Individuals with this disorder are often afraid that they will embarrass themselves during social or performance situations, which leads to avoidance or enduring these situations with clear distress. The most commonly feared situations among adolescents with SAD involve unstructured social interactions, such as initiating or joining a conversation or speaking to unfamiliar people (Beidel et al., 2007; Bernstein, Bernat, Davis, & Layne, 2008). Other commonly feared situations include participating in class, working in groups, and being assertive (Bernstein et al., 2008; Mesa, Beidel, & Bunnell, 2014).

SAD is one of the most prevalent disorders in both youth and adults with roughly 1 in 10 individuals experiencing this disorder in their lifetime (Kessler et al., 2005; Merikangas, Nakamura, & Kessler, 2009; Merikangas et al., 2011). Rates of SAD peak during adolescence, with half of individuals having an onset by age 13, and 90% with an onset before age 23 (Kessler et al., 2005).

Evidence-based treatments for SAD include Cognitive Behavioral Therapy (CBT), social skills training, exposure, and medication. Herbert et al. (2009) found CBT, in both a group and individual format, to result in greater improvement in behavioral functioning compared to a psychoeducational-supportive treatment. Additionally, the group CBT was associated with the highest recovery rate at the 6-month follow-up, potentially due to the fact that the group format serves as an exposure and allows members to practice social skills. In a similar treatment comparison, Masia Warner, Fisher, Shrout, Rathor, and Klein (2007) implemented two interventions for adolescents with SAD within the school setting. At the end of the 12-week intervention, close to 60% of students in the CBT and social skills intervention no longer met diagnostic criteria for SAD, while every student in the control treatment still met criteria SAD, with this pattern holding at the 6-month follow-up. Additionally, fluoxetine has been shown to be an effective pharmacological treatment for youth with SAD, with minimal reported side effects (Karabekiroglu, Karakurt, Yuce, & Tasdemir Say, 2011). However, while many evidence-based options exist, the vast majority of youth with SAD do not receive treatment for this disorder.

Left untreated, SAD often follows an unremitting course. Of adolescents with a lifetime diagnosis of SAD, 87% still had the diagnosis in the previous year, with an average duration of six years (Burstein et al., 2011). Carballo et al. (2010) found that approximately 60% of

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http://dx.doi.org/10.1016/j.childyouth.2016.11.011
0190-7409/

youth aged 2 to 18 with SAD still met criteria for the disorder almost four years later. More than half of youth with SAD still exhibited symptoms up to 10 years later, with 15.5% continuing to meet diagnostic criteria (Beesdo-Baum et al., 2012). Predictors of persistent SAD include an early age of onset, fears related to social interaction rather than performance, and the presence of a comorbid mood disorder diagnosis (Blanco et al., 2011; Yonkers, Bruce, Dyck, & Keller, 2003). Treatment seeking also predicted chronic SAD (Blanco et al., 2011), suggesting that individuals with more severe and persistent SAD have a stronger desire for treatment. However, even among youth with chronic anxiety, only 15.8% had ever received treatment (Essau, 2005).

SAD is associated with impairment in multiple domains. Youth with SAD have poorer social skills (Rheingold, Herbert, & Franklin, 2003; Spence, Donovan, & Brechman-Toussaint, 1999), view themselves as less competent, and engage in more negative self-talk during social-evaluative tasks compared to non-anxious controls (Spence et al., 1999). Youth with SAD report low levels of social acceptance accompanied by increased negative peer interactions, victimization, and bullying (Ginsburg, La Greca, & Silverman, 1998; Gren-Landell, Aho, Andersson, & Goran Svedin, 2011; Hutcherson & Epkins, 2009; Ranta, Kaltiala-Heino, Frojd, & Marttunen, 2013; Verduin & Kendall, 2008). Individuals with SAD also experience numerous academic difficulties. Children with greater SAD severity report more attention and learning difficulties compared to those with other anxiety disorders (Bernstein et al., 2008). SAD has been linked to a greater likelihood of failing a grade and dropping out before completing high school (Stein & Kean, 2000).

SAD rarely occurs in isolation. In a mixed sample of adolescents and adults, over half of participants with SAD had at least one comorbid disorder (Chartier, Walker, & Stein, 2003). In the majority of cases, the onset of SAD precedes the onset of other forms of psychopathology (Katzelnick et al., 2001), suggesting that the disorder is a risk factor for, rather than consequence of, other forms of psychopathology. The most common comorbid diagnosis is another anxiety disorder. Rates of comorbid anxiety range from 20% (Burstein et al., 2011) in a community sample to 75% in a clinical sample (Beidel et al., 2007). Of the anxiety disorders, generalized anxiety disorder (GAD) and agoraphobia are the most frequent comorbid diagnosis (Beidel et al., 2007; Burstein et al., 2011). In addition to anxiety disorders, major depressive disorder (MDD) is also highly prevalent, with approximately 31% of youth with SAD displaying this comorbidity (Wittchen, Stein, & Kessler, 1999). Externalizing disorders are also common. A recent national survey found that 17.8% of adolescents with SAD also had a lifetime diagnosis of oppositional defiant disorder (ODD), with comparable rates for conduct disorder (CD; Burstein et al., 2011). The rate of comorbid ADHD was slightly lower at 11.7%. It is reported that 17.4% of adolescents with SAD meet criteria for a lifetime substance use disorder (Burstein et al., 2011). After controlling for relevant demographic and psychological variables, adolescents with SAD had a 4.5 and 6.5 times greater risk of later developing dependence for both alcohol and cannabis respectively (Buckner et al., 2008). Finally, Godart, Flament, Lecrubier, and Jeammet (2000) found SAD to be the most common comorbid anxiety disorder in patients with eating disorders, with 55% of those with anorexia and 59% of those with bulimia having a lifetime diagnosis of SAD. Finally, it is important to note that the presence of comorbidities is associated with greater impairment (Katzelnick et al., 2001) and the risk of developing a comorbid diagnosis increases the longer SAD goes untreated (Essau, Conradt, & Petermann, 1999).

Comorbidity is associated with a greater likelihood of treatment utilization (Johnson & Coles, 2013). Oftentimes, SAD remains undetected despite identification and treatment of a comorbid disorder (Brady & Kendall, 1992). The presence of comorbid ADHD increases the odds that youth with anxiety will receive treatment, while the presence of comorbid anxiety decreases the likelihood that youth with ADHD will receive treatment. Compared to children with ADHD only, youth with comorbid ADHD and anxiety were less likely to be prescribed medication for ADHD (Ezpeleta & Toro, 2009). Among youth with anxiety disorders, comorbid ADHD is associated with an increased mental health treatment and school services (Hammerness et al., 2010). Additionally, SAD serves as a barrier to treatment for ODD (Ezpeleta & Toro, 2009) and eating disorders (Goodwin & Fitzgibbon, 2002) resulting in lower rates of treatment seeking and receipt compared to individuals without comorbid SAD.

1.1. Barriers to treatment

Results of an epidemiological study (Merikangas et al., 2011) revealed that approximately two thirds of adolescents with any lifetime mental disorder do not receive needed mental health services. Comorbidity and disorder severity were associated with a higher likelihood of service utilization, although the majority of youth with severe lifetime disorders (52.6%) still do not receive treatment. It is consistently reported that earlier-onset disorders are associated with both a lower probability of treatment seeking and longer delays when treatment is sought (Christiana et al., 2000; Wang, Berglund, Olfson, & Kessler, 2004; Wang et al., 2005).

Despite being among the most prevalent disorders in youth, adolescents with SAD are among the least likely to receive disorder-specific mental health services, with approximately 90% of these youth not receiving treatment (Burstein et al., 2011). Of youth with SAD who do receive treatment, only 18.5% receive treatment for an anxiety disorder, and even fewer (8.6%) receive SAD-specific treatment. The majority (60.8%) receive treatment for other forms of psychopathology.

The barriers to mental health services most frequently reported by youth involved being embarrassed about what peers would say, not wanting to talk about mental health problems, and not trusting counselors (Chandra & Minkovitz, 2006). Adolescents are less likely to seek professional services if they believe that a problem will improve on its own or that there is a stigma associated with receiving professional treatment (Cheng, 2009). SAD in adolescence has also been linked to self-presented perfectionism (Flett, Coulter, & Hewitt, 2012), which may lead to a reduction in help-seeking behaviors as these individuals fear being viewed negatively.

1.1.1. Detection

Another key factor that contributes to the under-utilization of mental health services for youth with SAD is poor identification of the disorder. Children often do not seek mental health services of their own accord, but rather rely on adults to recognize problems and encourage treatment seeking (Ford, Sayal, Meltzer, & Goodman, 2005). However, due to their internalizing nature, anxiety disorders are particularly difficult to detect. For instance, a majority of children with anxiety disorders had parents who did not perceive their child to have a problem and did not observe any negative impact on family functioning (Teagle, 2002). This is particularly problematic given that parent's perceived burden and need for services for their child has been found to be the strongest predictor of treatment utilization for youth (Angold et al., 1998; Wu et al., 2001).

Similarly, health care providers are often unable to accurately identify social anxiety symptoms in patients (Wagner, Silove, Marnane, & Rouen, 2006). This likely is a strong contribution to decreased service use given that pediatricians are often the gateway to mental health services for youth. When individuals eventually do seek treatment, it is often in primary care settings and physical symptoms, rather than the anxiety itself, are the chief complaint (Weisberg, Dyck, Culpepper, & Keller, 2007). Both patients and clinicians are often unaware that the underlying condition is depression or an anxiety disorder (Richardson & Puskar, 2012), thus highlighting the need for improved psychoeducation about the nature and presentation of the disorder. Oftentimes these patients undergo needless and avoidable tests for physical causes of symptoms, resulting in delayed diagnosis, poorer outcomes, and greater health care costs (Burton, McGorm, Weller, &