

Brief report

Adolescents in smoking cessation treatment: Relationship between externalizing symptoms, smoking history and outcome

Eric T. Moolchan^{a,*}, Matthew Frazier^a, Frederick H. Franken^a, Monique Ernst^b^a *TTATRC, NIDA IRP, NIH, DHHS, Baltimore, MD, USA*^b *EDAM, NIMH, NIH, DHHS, Bethesda, MD, USA*

Received 9 December 2005; received in revised form 8 March 2006; accepted 8 May 2006

Abstract

Previous research has indicated a potential bi-directional link between youth substance use and externalizing psychiatric comorbidities. We hypothesized that the degree of externalizing symptoms predicts the likelihood of successful smoking cessation (prolonged abstinence) among adolescent smokers participating in a cessation trial. We also explored the association of externalizing symptoms with age at smoking initiation. Ninety one adolescents (mean±S.D.; age 15.1±1.4 years, cigarettes per day 18.4±8.1, Fagerström Test for Nicotine Dependence 7.1±1.3) were included. The Child Behavior Checklist/4–18 and Youth Self-Report assessed the degree of externalizing symptoms. Regression analysis indicated that lower CBCL externalizing scores significantly predicted the likelihood of prolonged abstinence. Pearson's correlation analysis indicated a significant association of lower externalizing scores with later onset of smoking initiation. Our findings highlight the importance of addressing externalizing behaviors in adolescent smoking cessation programs. Published by Elsevier Ireland Ltd.

Keywords: Tobacco; Externalizing behaviors

1. Introduction

Previous research indicates a potential bi-directional link between youth substance use and externalizing psychiatric comorbidities (Kandel and Yamaguchi, 1985; Ferdinand et al., 2001; Upadhyaya et al., 2002; Tomlinson et al., 2004). Externalizing problem behaviors (e.g. hyperactivity, impulsivity, inattention, delinquency, aggression) are the most common and persistent forms of childhood maladjustment (Bongers et al., 2004). These behaviors are associated with engaging in health com-

promising behaviors (Laukkanen et al., 2002; O'Dell et al., 2004). Psychiatric problems increase the risk for smoking initiation and decrease the potential for quitting smoking (Breslau et al., 2004). The degree of externalizing behavioral symptoms (aggression and hyperactivity) was prospectively associated with earlier age of tobacco initiation in a sample of youths at risk for substance abuse (Leff et al., 2003). It also appears that externalizing symptoms during adolescence may enhance the severity of tobacco dependence which, in turn, has been shown to reduce the likelihood of cessation (Breslau and Johnson, 2000). Not yet addressed is the potential role of externalizing problem behaviors in young smokers engaged in smoking cessation treatment (Upadhyaya et al., 2002; Rohde et al., 2004). The purpose of the present work is to address this gap in the literature. A better understanding of

* Corresponding author. Teen Tobacco Addiction Treatment Research Clinic, 5500 Nathan Shock Dr., Baltimore, MD 21224, USA. Tel.: +1 410 550 1846; fax: +1 410 550 1656.

E-mail address: emoolcha@intra.nida.nih.gov (E.T. Moolchan).

this could help guide researchers and clinicians who interact with this population.

We hypothesized that adolescents with a high degree of externalizing symptoms (high externalizers) are less likely to achieve abstinence from tobacco smoking compared to those with a low degree of externalizing symptoms (low externalizers). A secondary analysis examined whether, in a clinical sample of adolescent cessation treatment-seekers, we could replicate the association of early onset smoking initiation with problem behaviors (Kandel et al., 2004). We retrospectively explored whether this sample of treatment requesters showed a relationship between current problem behavior symptom severity and early onset of smoking (i.e., age at first cigarette).

2. Methods

2.1. Subjects

Participants included in the analysis were treatment-seeking adolescent smokers from Baltimore, Maryland who were enrolled in a randomized double-blind, placebo controlled smoking cessation trial testing two forms of nicotine replacement therapy (patch or gum) in combination with cognitive behavioral therapy (CBT). Adolescent smokers ages 13 to 17 were recruited from 1999 to 2003 through various forms of advertisement, including local radio, television, newspaper ads, community outreach, and word-of-mouth. Treatment trial inclusion criteria for participants included smoking at least ten cigarettes per day (CPD), scoring at least five on the Fagerström Test for Nicotine Dependence (FTND) (0–10) (Heatherton et al., 1991), being in general good health and motivated to quit smoking (scoring at least five on a ten-point Likert scale). Exclusion criteria included drug or alcohol abuse and dependence (but not use) other than nicotine, and current mania, psychosis, and acute depression, according to the Diagnostic Interview of Children and Adolescents (DICA-A-IV) (Reich, 2000), based on the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. These exclusion criteria allowed us to study a more homogeneous sample whose smoking cessation was unimpeded by other addictions not addressed by our treatment protocol. However, candidates taking psychotropic medications not prescribed for smoking cessation were included in the trial.

2.2. Procedures

After a screening telephone interview, pre-eligible candidates, along with a parent or guardian, were invited

to receive an overview of the study. Signed informed consents and assents were obtained from parents and adolescents at this initial visit. During the screening visits, all participants underwent a medical history and physical examination, and were assessed for psychiatric disorders. The Child Behavior Checklist/4–18 (CBCL) was administered to parents, and adolescents completed the Youth Self-Report for adolescents 11 to 18 years (YSR) in separate rooms. Age at first cigarette smoked, age at onset of daily smoking, and current smoking (CPD) data were obtained at time of treatment request. Screening visits were followed by an established quit date, 11 treatment visits and a 3-month follow-up visit. CBT group sessions were conducted at every treatment visit. Participants attended a 45-minute CBT session led by a trained social worker at the end of each treatment visit. The aim of the cognitive behavioral therapy was to help participants identify and address specific factors that led either to smoking or maintaining abstinence from smoking behavior, as well as better management of life stressors by using effective and adaptive coping skills (Moolchan and Ruckel, 2002). The main outcome measure, prolonged abstinence (Hughes et al., 2003), was defined as continued abstinence subsequent to a two-week grace period after the suggested quit date through the end of treatment. At each visit, abstinence was assessed by self-report and biochemically confirmed by expired air carbon monoxide ≤ 6 ppm.

2.3. Instruments

The parent or guardian completed a paper version of the Child Behavior Checklist/4–18 (CBCL) (Achenbach and Ruffle, 2000). The CBCL contains 120 items that assess behavioral and emotional problems that occurred during the past 6 months. Each item is rated on a 3-point scale: 0 = not true, 1 = somewhat or sometimes true, and 2 = very true or often true. Self-reports of externalizing behavior were assessed using the Youth Self-Report (YSR) for adolescents 11 to 18 years (Achenbach and Dumenci, 2001). On the CBCL (Achenbach, 1991a), the norms for externalizing behavior scores for boys 12 to 18 years of age are 8.7 S.D. 7.6 and for girls (12–18) 7.1 S.D. 6.6. The YSR is the youth administered equivalent of the CBCL. On the YSR (Achenbach, 1991b), the norms for externalizing behavior scores for boys 12 to 18 years of age are 11.6 S.D. 7.0 and for girls (12–18) 10.3 S.D. 6.3.

The structure of the eight symptom domains for the YSR and CBCL are: withdrawn, somatic complaints, anxious/depressed, delinquent behavior, aggressive behavior, social problems, thought problems, and attention

Download English Version:

<https://daneshyari.com/en/article/332550>

Download Persian Version:

<https://daneshyari.com/article/332550>

[Daneshyari.com](https://daneshyari.com)