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The effects of eliciting implicit versus explicit social support among youths susceptible for late-onset smoking

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HIGHLIGHTS

- This experiment examined smoking-susceptible older adolescents.
- A video-making task elicited thoughts about implicit, explicit or no social support.
- The implicit (vs. explicit) support task produced lower risk for smoking initiation.

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ABSTRACT

Purpose: Adolescents susceptible to late-onset smoking (becoming regular smokers at age 18 or later) are an understudied population. Social support is a promising target for intervention, but it is important to distinguish between implicit social support (reminders that one belongs to a network of valued others) and explicit social support (seeking and receiving advice and emotional solace). This study aimed to test the potential protective influence of implicit and explicit social support on reducing the risk of late-onset smoking.
Methods: Fifty-eight smoking-susceptible youths (aged 16–18, 45% African American, 55% non-Hispanic White) completed an experimental session that included a video-recording task designed to elicit thoughts about implicit, explicit, or no social support. Youths reported their behavioral willingness and intentions (BW and BI) to smoke immediately following the social support manipulation; a random sample of 39 youths reported again at a 3-week follow-up.
Results: Following the manipulation, BW and BI for cigarette smoking were significantly higher among youths assigned to the explicit-support condition, compared to those in the implicit-support or control conditions. At follow-up, BW and BI were highest in the explicit-support condition and lowest in the implicit-support condition, but the differences were not significant.
Conclusions: Overall, findings indicated that for teens susceptible for late-onset smoking, eliciting thoughts about implicit social support produces lower risk for cigarette initiation than does eliciting thoughts about explicit social support. The present results and the video task that yielded them are important to researchers and practitioners interested in reducing the likelihood of late-onset smoking.

1. Introduction

Although the average age of smoking initiation in the U.S. is around 15 years (USDHHS, 2014), a substantial proportion of smokers begin later than that. Late-onset smokers (i.e., those who become regular smokers at age 18 or later) comprise nearly one-third of all ever-regular smokers (USDHHS, 2014). However, the majority of smoking-prevention research focuses on early adolescence, with consequently little research examining factors associated with risk for late-onset smoking. It is important for research on smoking prevention to extend the "at risk" window beyond early adolescence, and identify the factors that may help reduce the likelihood of smoking initiation during late adolescence and early adulthood.

1.1. Transitions, stress, and social support

During adolescence, supportive relationships with parents and other adults are important protective factors against risk behavior—including

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smoking (Hershberger, Zapolski, & Aalsma, 2016; Hurd & Zimmerman, 2010; Wills, Gibbons, Gerrard, & Brody, 2000). An important component of these relationships is social support. Social support consists of various distinct dimensions, including tangible assistance versus emotional support, and quality versus size of a social network (Cobb, 1978; Cohen & Wills, 1985). One distinction that has not been examined in smoking research is the difference between implicit and explicit social support. The focus of cross-cultural research (Kim, Sherman, & Taylor, 2008; Taylor, Welch, Kim, & Sherman, 2007), implicit social support refers to reminders that one belongs to a network of valued others (regardless of whether one could draw on those others for help). In contrast, explicit social support refers to seeking and receiving advice and emotional solace.

Developmental and environmental changes appear to instigate a reduction in perceived parental support during the transition from adolescence to adulthood (Bokhorst, Sumter, & Westenberg, 2010; Helsen, Vollebergh, & Meeus, 2000). This reduction is particularly unfortunate given that stressors frequently shift and increase during this same developmental period (e.g., unemployment, discrimination), and that social support can buffer the effects of stress (Cohen & Wills, 1985; Taylor, 2011). Given the protective influence that supportive relationships have on adolescent risk behavior (Farrell, Bolland, & Cockerham, 2015; Hurd & Zimmerman, 2010; Miller, Esposito-Smythers, & Leichtweis, 2015; Roberts et al., 2012; Wills et al., 2000), targeting social support may be a means to reduce risk for late-onset smoking.

1.2. A social support intervention

Taylor and colleagues (Taylor et al., 2007) tested the stress-buffering effects of eliciting implicit and explicit social support among White and Asian or Asian American undergraduates in California by employing a simple writing task. All participants were anticipating a stressful event later in the laboratory session (a math task and a speech, both performed to an audience). In the first condition, intended to activate thoughts about implicit support, participants were asked to write about the aspects of close individuals that were important to them. In the second condition, intended to activate thoughts about explicit support, participants were asked to write a letter to close individuals and ask for direct advice and support for the upcoming (stressful) event. A third, control, condition had participants describe campus landmarks and the places they would recommend for a campus tour. Findings indicated that the social support manipulation attenuated both the psychological and physiological responses to the stressful laboratory event, but in different ways depending on participants' cultural backgrounds: White participants had reduced stress in the explicit-support conditions (compared to both the implicit-support and the control condition), whereas Asian and Asian American participants had reduced stress in the implicit-support condition (compared with those in the explicit-support condition). Of note, there was no significant difference between Asian and Asian American participants in the implicit-support vs. control conditions. The authors interpreted their results as being due to cross-cultural differences in comfort with self-expression and verbal disclosure (higher in Western cultures) relative to the importance of maintaining harmonious relationships (higher in East Asian cultures).

Taylor's writing task seems as if it could lend itself well to a smoking intervention for older adolescents. Yet despite being validated among undergraduates facing a laboratory stressor, it is unknown whether the task could be protective for adolescents susceptible to late-onset smoking. Another outstanding question concerns the comparative benefits of implicit versus explicit support in the context of continuous stressors. The previous research focused on implicit and explicit support in the face of a specific stressor (e.g., giving a public speech). Yet what happens when the stressors are ubiquitous and enduring (e.g., starting college, transitioning adulthood)? Likewise, the value of eliciting implicit vs. explicit social support among adolescents is unknown. Theory concerning the importance of person-environment fit for social support (Shinn, Lehmann, & Wong, 1984) suggests that in order for social support to be effective, what the supporter provides must match what the individual needs. Adolescence is characterized by needs for both individuation and separation—having a social identity, but also being independent (Mattanah, Hancock, & Brand, 2004; Meeus, Iedema, Maassen, & Engels, 2005). It is possible that in the context of personal, long-term stressors during late adolescence, social support that involves reminders that one belongs to a valued social group (i.e., implicit support) may be beneficial. Conversely, requiring youth in late adolescence to ask for help and advice (i.e., explicit support) may itself be a stressful task.

1.3. The current study

The purpose of the present study was to evaluate the potential protective influence of implicit and explicit social support on reducing the risk of late-onset smoking. The study consisted of a baseline experiment in which participants were randomly assigned to one of three conditions (implicit support, explicit support, or control) and a three-week follow-up survey.

The experimental paradigm was based on Taylor's task (Taylor et al., 2007); however, we modified the manipulation from a writing task to a video-recording task in order to (1) be more accessible to individuals with lower literacy levels and (2) be more enjoyable and relevant for the young generation being sampled (i.e., more consistent with how they are accustomed to communicating with their social network Lenhart, 2015). We assessed mood following the experimental procedure to gauge acceptability of the video-based task.

Our primary aim was to test whether implicit or explicit social support would result in lower risk for late-onset smoking, measured as willingness and intentions to use cigarettes. We tested this question on a sample of smoking-susceptible youths aged 16–18 years to capture the period directly prior to late-onset. Given the particularly high rates of late-onset smoking among African Americans (Roberts, Colby, Lu, & Ferketich, 2016) we recruited White and African American youths to make racial comparisons and identify whether there are effects unique for African Americans. Previous research found cultural differences (Kim et al., 2008; Taylor et al., 2007) such that Whites did not benefit as much as Asian and Asian Americans from implicit support; therefore, our exploratory hypothesis was that Whites would benefit less than African Americans from the implicit support condition.

2. Methods

2.1. Participants and recruitment

All procedures were approved by the Brown University IRB. This study was advertised as concerning "the attitudes, social environments, emotions, and health behaviors of older teens and young adults." Recruitment occurred through a variety of means (flyers, listservs, announcements at after-school programs, etc.). Advertisements provided a phone number and website link, so that youths interested in participating could take a brief screener (over the phone or online). To be eligible for participation, youths needed to be non-Hispanic White or non-Hispanic African American, between the ages of 16–18, born in the U.S., and smoking susceptible. Youths were considered *smoking susceptible* if they were either: experimenters (those who had ever puffed or smoked cigarettes but had not smoked >100 cigarettes in their lifetime) or vulnerable never-smokers (those who responded with anything except "definitely not" to the screener item "Do you think that in the future you might experiment with cigarettes?"). Fifty-nine eligible youths participated in the baseline session. One participant exceeded the threshold of smoking >100 cigarettes between the time of screening and baseline. Data from this participant were excluded from the analyses, yielding a baseline sample of 58 (32 White and 26 African American). A random