Addictive Behaviors 39 (2014) 127–132

Contents lists available at ScienceDirect

Addictive Behaviors

Parents' beliefs and children's marijuana use: Evidence for a self-fulfilling prophecy effect

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HIGHLIGHTS

• Parental expectancies were associated with children's marijuana initiation or cessation.
• Negative parental expectancies were linked to later rise in adolescents' marijuana use.
• Positive parent expectancies were linked to later decline in adolescents' marijuana use.
• Children's usage was unrelated to their estimates of parents' knowledge of their use.

ARTICLE INFO

Keywords:
Self-fulfilling prophecy
Adolescents
Marijuana
Secondary analysis
Panel survey
Drug misuse

ABSTRACT

Parents' beliefs about their children's involvement in aberrant behaviors are variable and sometimes inaccurate, but they may be influential. This study is concerned with inconsistencies between parents' estimates and their children's reports of marijuana use, and children's subsequent usage one year later. The self-fulfilling prophecy hypothesis suggests that discrepancies between parents' beliefs and children's behaviors could have detrimental or beneficial outcomes, depending on the inconsistency. This possibility was investigated with data from a panel survey of a nationally representative sample of parents and their adolescent children ($N = 3131$). Marijuana-abstinent adolescents in the first year (T1) of the survey were significantly more likely to initiate use over the next year if they were characterized by parents as users at T1; conversely, adolescent marijuana users at T1 were significantly less likely to continue usage in the second year if they were labeled by parents as abstinent at T1 (both $p < .001$). Odds that abstinent children whose parents believed they used marijuana would initiate use a year later (T2) were 4.4 times greater than those of abstinent respondents whose parents judged them abstinent. Odds of self-reported users quitting by T2 were 2.7 greater if parents believed they had not used at T1.

1. Introduction

Illicit substance use by adolescents is an acknowledged social concern, and millions are spent annually to prevent its initiation by youth. Preventive approaches ranging from school based programs to community interventions to national media blitzes have been implemented in recent years, but even in combination most have not had broad and lasting impact. In 2012, reported lifetime marijuana use of a nationwide US sample of 8th graders was 15.2%; the proportion rose to 33.8% for 10th graders, and 45.2% for 12th graders (Johnston, O'Malley, Bachman, & Schulenberg, 2013), rates that have remained relatively stable over the past decade (SAMHSA, 2011). Adolescent marijuana usage is regrettable, as the drug is associated with a range of negative consequences and complications, including learning deficits, inferior school achievement, greater risks of contracting sexually transmitted diseases, and more positive evaluations of other illicit and illegal substances (Brook, Adams, Balka, & Johnson, 2002; Crano, Siegel, Alvaro, Lac, & Hemovich, 2008; Kandel, 2003; Lundqvist, 2005; Lynskey, Coffey, Degenhardt, Carlin, & Patton, 2003; Skenderian, Siegel, Crano, Alvaro, & Lac, 2008).

An important factor in drug prevention involves a consistent feature of most adolescents' family environments, their interactions with parents (throughout, the term parents refers to parents or guardians) (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003; Hemovich, Lac, & Crano, 2011; Svensson, 2000). A meta-analysis involving more than 35,000 independent observations found that adolescents' estimates of parents' knowledge of their unsupervised behaviors unfailingly and significantly associated with lower levels of marijuana use (Lac & Crano, 2009), a result consistent with prior research (e.g., Hemovich et al., 2011; Ramirez et al., 2004). Tight parental monitoring can prove to be a two-edged sword, however, and thus a cautionary note must be sounded insofar as parents' perceptions may prove inaccurate, and inaccurate impressions may have unanticipated and unintended effects. The present research is designed to investigate the link between incongruence of parents' beliefs and children's self-reports of marijuana use with later usage. It is designed to determine if a self-fulfilling prophecy

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http://dx.doi.org/10.1016/j.addbeh.2013.09.009

effect operates, whereby parents' mistaken assumptions of their children's marijuana use are associated with subsequent initiation. Also, it seeks to ascertain if parents' mistaken assumptions of their children's abstinence are linked with later attenuation of use or abstinence in their marijuana-using offspring. The parent–child interaction provides an ideal venue in which to study this issue. Swann and Ely (1984) found behavioral confirmation of expectations most likely when perceivers were "certain of their expectancies and targets [were] uncertain of their self-conceptions" (p. 1287), a description that fits many parent–child exchanges on issues concerned with illicit substance use, and is consistent with Jussim's (2012, p. 408) view that "unclear self-perceptions render targets more susceptible to confirming perceivers' expectations".

1.1. The self-fulfilling prophecy

Developed by Merton (1948), a self-fulfilling prophecy is an erroneous belief or expectation that leads to its fulfillment. Only erroneous expectations can be established as self-fulfilling. If there were no inaccurate perceptions, there would be no self-fulfilling prophecy because there would be no discrepancy between perception and reality (Jussim, 1991). Self-fulfilling prophecies are of particular interest in the present research, as it is concerned with the association of parents' views of their children's marijuana use when these views conflict with youths' self-reports. The issue is critical, as parents are among the adolescent's most significant social referents, and are extraordinarily influential on their offspring's drug involvements (Hassandra et al., 2011; Maldonado-Molina, Reingle, Delcher, & Branchini, 2011; Miller, Siegel, Hohman, & Crano, 2013). Extrapolating from the self-fulfilling prophecy literature suggests that parents who mistakenly assume their children use drugs may inadvertently promote the very problem they seek to avert. By the same logic, the model suggests the possibility that parents who mistakenly believe their children are drug avoidant may foster cessation in their marijuana-using children.

From Rosenthal and Jacobson (1968) onward, researchers have shown significant associations between authorities' expectations and children's behavior across a range of issues, including alcohol, tobacco, and marijuana use, as well as academic achievement (Doran, Schweizer, & Myers., 2012; Doran, Schweizer, & Myers, 2011; Guyll, Madon, Prieto, & Scherr, 2010; Madon et al., 2008; Nash, McQueen, & Bray, 2005; Simons-Morton, 2004). Investigating the self-fulfilling effects of parents' expectations on their (7th grade) children's alcohol use one year later, for example, Madon, Guyll, Spoth, and Willard (2004) found parents' negative expectancies (overestimates of usage) more strongly confirmed than positive expectancies (underestimates), though both types were related significantly to use.

Adolescent marijuana misuse introduces complexities that may differ from those encountered in research on alcohol use. Although neither substance may be used legally by minors, there are exceptions to the alcohol prohibition in 31 states, whereas in no state is adolescent marijuana use legal. Marijuana is more stigmatized, and considerably less normative than alcohol use in adolescence (Johnston et al., 2013), and so initiating use may be more personally significant than usage frequency, which may be a function of availability. For these reasons, study of the association of parental beliefs and adolescents' marijuana use deserves attention, both in terms of its link with usage frequency, and with usage initiation or cessation. This research is designed to investigate frequency of marijuana use and its initiation or cessation.

1.2. Hypotheses

In Analysis 1, self-reports of marijuana use in the first year (T1) of a nationally representative longitudinal panel survey were used to categorize youth as users or nonusers. Crossed with this variable were parents' reported beliefs of their children's usage status, also collected at T1. For some youth, self-reports of abstinence at T1 coincided with parents' reports; for others, they did not (i.e., at T1 parents reported they believed their children had used marijuana in the past 12 months despite the children's disclaimers). The analysis was designed to determine if the discrepancies between parents' beliefs and their children's self-reports at T1 were linked to frequency of marijuana use at T2. At T2, youth who admitted to using marijuana in the prior year are expected to be more frequent users than those who reported abstinence at T1 (H1). Children of parents who believed they had used marijuana in the past year also are expected to exhibit greater frequency of marijuana use (H2). Based on the self-fulfilling prophecy, it is hypothesized that "misdiagnosed" self-reported abstinent adolescents (at T1) will report higher levels of marijuana use at T2 than will those whose parents' beliefs matched their children's reports of abstinence. T2 marijuana use of "misdiagnosed" youth who reported use at T1 will be lower than that of T1 users whose parents reported that their children had initiated use at T1 (H3).

Analysis 2 is similar to the first, but is focused on the association between adolescent's T2 marijuana-initiation or cessation (vs. frequency) and parents' estimates of their T1 usage. The self-fulfilling prophecy holds that among T1 abstinent adolescents, those whose parents report the belief that they had used marijuana will be more likely to initiate use at T2 than those whose parents who believed their children were marijuana-abstinent (H4). Among adolescents reporting marijuana use at T1, those with parents whose beliefs were inconsistent with their admissions of usage will be more likely to discontinue use relative to their peers whose parents suspected their having used (H5).

2. Material and methods

The data used in the analyses were drawn from the restricted archive of the National Survey of Parents and Youth (NSPY), which was conducted in the evaluation of the National Youth Anti-Drug Media Campaign (National Institute on Drug Abuse [NIDA], 2006; see also www.mediacampaign.org). Detailed descriptions of the sample, instrument, and data collection procedures are available elsewhere (Crano et al., 2008; NIDA, 2006).

2.1. Respondents

The first two years of the four-year panel study were chosen to maximize sample size. Data from adolescents whose age ranged from 12 to 17 years at the beginning of the survey were used. Nine to 11-year olds were not used as they completed different surveys from the older participants, and 18-year olds were not used as they would have aged out of the sample by the second year. The resulting sample (N = 3131) involved all parent–child pairs with complete data on all variables of interest at T1. Table 1 summarizes age, gender, and racial breakdowns of adolescents and parents.

2.2. Procedure

Interviewers obtained written and verbal consent from adolescents and parents before initiating the interview. To help ensure honest answers, they interviewed parents and children separately. Items relating to substance use were collected via audio computer-assisted self-

Table 1
Demographic breakdown of the parent–child sample (N = 3131).

Feature	Youth	Parents
Age	13.6 years (SD = 1.5)	41.8 (SD = 6.6)
Male	1604 (51.2%)	1077 (34.4%)
Female	1527 (48.8%)	2054 (65.6%)
White	2163 (69.1%)	2201 (70.3%)
Black	422 (13.5%)	407 (13.0%)
Asian	120 (3.8%)	123 (3.9%)
Hispanic	426 (13.6%)	484 (12.8%)