

## EVALUATING THE *TIMEWISE* LEARNING LIFELONG LEISURE SKILLS PREVENTION PROGRAM - PRELIMINARY EVIDENCE

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The *TimeWise*: Learning Lifelong Leisure Skills program is a curriculum-based, leisure education program. *TimeWise* was developed to help prevent the onset of substance abuse and other unhealthy behavior in middle school youth and was funded through a grant from the U.S. National Institutes of Health, National Institute of Drug Abuse (NIDA). The purpose of this paper is to present preliminary evidence about the efficacy of *TimeWise* to influence the leisure mediators thought to ultimately affect substance use.

As a child moves into young adolescence, he or she begins to experience increased freedom in leisure opportunities. This increased freedom provides a catalyst for experimentation with social roles, behaviors, and ideas—all of which contribute to a youth's successful transition into adulthood. The experimentation that takes place in this context is essential for healthy development, but it also includes behaviors that might be developmentally maladaptive. One of the reasons leisure is risky is because some adolescents *experience* leisure negatively, e.g., boredom. Perceptions of nothing to do, no place to go, and boredom have been linked with a number of problem behaviors such as alcohol and drug abuse (Brake, 1997; Iso-Ahola & Crowley, 1991; Orcutt, 1985), higher rates of dropping out of school (Farrell, Peguero, Lindsey, & White, 1988) and vandalism (Caldwell & Smith, 1995). Understanding boredom during adolescence is even more challenging because it is compounded by concomitant developmental processes. In addition, the amount of free time available to adolescents and the increasing control they have over this time compared to their childhood years suggests that adolescents are learning to structure their own time (rather than having their time structured for them) to a greater extent than they had in the past. As youth gain increased control of their own leisure, positive development requires learning to take personal responsibility for initiating positive leisure activities (e.g., Silbereisen & Eyferth, 1986; Silbereisen & Todt, 1994). Learning how to take initiative and carrying out long-term engagement is essential for healthy development (Bronfenbrenner & Morris, 1998; Larson, 2000).

*TimeWise* was developed to respond to the preceding issues. It is comprised of six theoretically grounded lessons targeted at middle school youth and is designed to teach students to (a) determine personally satisfying and meaningful leisure activities, (b) understand the benefits of participating in healthy leisure, (c) understand how one's motivation affects one's experience and participation in healthy behaviors, (d) alleviate boredom and increase optimal experience in leisure time, (e) learn how to take responsible action to participate in desired activities, and (f) identify and overcome constraints that get in the way of participation in desired activities.

### Methods

#### *Sample and Procedures*

To evaluate *TimeWise*, a three-year, quasi-experimental design is being employed, and both outcome and process data are being collected. Nine school districts in central Pennsylvania are participating in the evaluation, four of which receive the *TimeWise* program and five serve as comparison schools. The ultimate outcome of *TimeWise* is to prevent or mitigate the onset of problem behavior (e.g., substance abuse). A number of leisure-related mediators were posited to influence the ability of youth to partake in healthy versus unhealthy leisure behaviors. The evaluation of *TimeWise* is in its second year, with two waves of data collected. Because it is premature to evaluate the onset of substance use (i.e., the outcome variable) with this cohort, the focus of this paper is to describe the effectiveness of *TimeWise* to influence the leisure-related mediators (e.g., increase participation in preferred leisure activities, increase perception of ability to plan for leisure time; increase perception of being able to make healthy decisions in leisure time, increase in sticking with an activity over time, and so on).

The *TimeWise* program was pilot tested in the fall of 2000 and implemented in four rural school districts in central Pennsylvania in the spring of 2001 (20 classrooms participated). Baseline data were collected in September and October, 2000 from 634 grade seven students. Self-administered questionnaires were administered by a team of trained university students. The first wave of follow-up data were collected in the Spring of 2001. There were between three and six weeks between the end of the *TimeWise* program and administration of the questionnaire. Of the 634 students at baseline, 315 were female (49.7%). Ninety-five percent of all students were Euro-American. We received permission and collected data on between 51% and 88% of all grade seven students in each of nine schools (the average was 63%). Ninety-nine percent of all students eligible to complete questionnaires did so at both time points. In addition to the pre and posttest data, extensive process data were collected. As part of that process evaluation, about 30% of all students who participated in the program were interviewed briefly to find out what their perceptions were of the program and what they learned.

## Measures

A variety of measures were used in the larger evaluation effort. This preliminary analysis focuses on the following leisure-related mediators: *self-determination in leisure* measured as five forms of motivation (amotivation, 4 items; external, 5 items; introjected, 5 items; identified, 4 items; and intrinsic, 4 items;  $\alpha = .77, .78, .68, .74,$  and  $.70$  respectively); *boredom in leisure* ( $\alpha = .66$ , 4 items); *perceived constraints* ( $\alpha = .52$ , 2 items); *increased participation in leisure activities* ( $\alpha = .72$ , 6 items); *awareness of things to do in the community* ( $\alpha = .50$ , 3 items); *planning and decision making skills* ( $\alpha = .75$ , 7 items); *well-being in leisure* ( $\alpha = .67$ ; 4 items); *ability to restructure a boring situation* ( $\alpha = .84$ , 5 items); *being interested in one's activities* ( $\alpha = .48$ , 3 items) and *persisting in leisure pursuits* ( $\alpha = .69$ , 2 items). Except for the boredom scale developed by Caldwell, Smith, and Weissinger (1992), all other items were researcher generated. Students responded to a series of items for each construct using the following response scale: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. Items were reverse coded as necessary.

## Results

To assess the impact of *TimeWise* on the mediators a series of GLM repeated measures procedures were used. The dependent variable was the mediator of interest (e.g., boredom in leisure). Time (e.g., boredom at Time 1 and boredom at Time 2) was the within subjects repeated measure. Condition (experiment or control group) and gender were between subjects factors. Main effects for time, condition and gender and two- and three-way interactions were tested. A probability level of .05 was used to determine significance.

The following main effects for time and gender were found: external motivation (decreased over time), introjected self-determination (increased and males were higher), identified self-determination (increased), intrinsic motivation (increased), perceived constraints (increased and males were higher), and peer influence (males more influenced by peers).

Analysis indicated that the following leisure mediators were affected by the *TimeWise* program. For each of the following, compared to those middle school students who did not get the *TimeWise* program (C), students in *TimeWise* (TW) score significantly in the desired direction (e.g., lower boredom, higher persistence, lower amotivation, and so on): amotivation (TW = 1.84, C = 1.99); identified self-determination (TW = 4.15, C = 3.94); participation (TW = 4.09, C = 3.93), awareness of leisure opportunities (TW = 3.52, C = 3.32), persistence (TW = 4.19, C = 4.09), interest (TW = 3.87, C = 3.71) and ability to restructure boring situations (TW = 4.04, C = 3.87). Furthermore, there were three interactions that suggested efficacy of the *TimeWise* program: boredom, decision making and planning, and well-being. These interactions suggest that over time, the control group's scores deteriorated from their time 1 levels, but the *TimeWise* group lowered their levels of boredom, increased their decision making skills, and increased participation in leisure activities that contributed to their well-being.

## Discussion

Developmentally, one would expect adolescents to become more self-determined over the grade seven year, which is what we found. *TimeWise*, however, seemed to help students increase levels of goal-oriented self-determination (identified) and decrease perceptions of amotivation (which is theoretically linked with boredom) beyond the expected developmental growth curve. We posit that these are important factors in risk reduction. The role of leisure-related self-determination and motivation in adolescence needs further exploration. There is preliminary evidence that youth can be taught to think about their levels of motivation as well as how to find interesting activities that are fulfilling (and thus motivating) and persist in these activities. Furthermore, *TimeWise* affected other leisure mediators as expected, suggesting that youth who receive *TimeWise* may be more protected against initiation of risk behaviors. *TimeWise* appears to have buffered the natural decay in planning skills, learning how to avoid boredom, and participating in healthy leisure experienced by youth. Two booster *TimeWise* sessions (in grades 8 and 9) and two more waves of data collection will help answer whether the effects seen in this analysis persist over time and whether the mediators do affect the ultimate outcome of preventing substance use.

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