

March/April 2009

Use of Research-based Information among Leaders of Public Health Agencies

Traci L. Toomey, Sarah Tramel, Darin J. Erickson, and Kathleen M. Lenk

Background: Researchers have identified numerous policies and programs effective in reducing public health problems, yet many of these programs and policies have not been implemented throughout communities and states. **Purpose:** To assess the use of research-based information among leaders in the local public health system. **Methods:** We conducted a mailed survey of county commissioners and directors, and selected managers (n = 591) of all local public health agencies located in Minnesota. **Results:** Forty-nine percent of respondents reported not using research information in making decisions about priority areas. The most common ways of accessing research information were by: (1) reading a research article, (2) through a state/federal health agency, or (3) attending conferences. However, these methods varied from those reported as the most effective ways for accessing research information, which included: (1) having a summary of journal articles regularly sent to them, (2) having funding agencies provide research information, and (3) through a staff-prepared summary. **Discussion:** Findings suggest that while many agency leaders use research evidence in public health practice, there is room for improvement. **Translation to Health Education Practice:** To increase use of research information, effective methods for disseminating research need to be identified, evaluated, and broadly used.

An Evaluation of a Classroom Science Intervention Designed To Extend the Bicycle Helmet Safety Message

Moira N. McPherson, Pamela K. Marsh, William J. Montelpare, Christina Van Barneveld, and Carlos E. Zerpa

Background: Wizards of Motion is a program of curriculum delivery through which experts in Kinesiology introduce grade 7 students to applications of physics for human movement. The program is linked closely to Ministry of Education curriculum requirements but includes human movement applications and data analysis experiences. **Purpose:** The purpose of this study was to evaluate students' head safety knowledge and attitudes toward helmet use after participating in the program. **Methods:** Data were collected from five grade 7 classrooms. Two classrooms (n = 37) receiving the program, while three classrooms, (n = 37) formed the control group (no intervention). **Results on the Knowledge Test, and the Student Helmet Use Questionnaire** were compared between intervention and control students. **Results:** A significant pre-post change in level of knowledge scores was observed in the intervention group. Likewise, intervention group students showed a significant increase in their intention to wear a helmet in future. **Discussion:** The successful program delivery illustrated the usefulness of linking public health promotion to standard classroom curriculum. **Translation to Health Education Practice:** This program exemplified the fundamental elements of knowledge translation and knowledge development, and is therefore recommended as a positive approach to delivering the public health message of helmet use for head safety.

Association of Eating Behaviors and Obesity with Psychosocial and Familial Influences

Stephen L. Brown, Glenn R. Schiraldi, and Peggy P. Wroblewski

Background: Overeating is often attributed to emotions and has been linked to psychological challenges and obesity. **Purpose:** This study investigated the effect of emotional and external cue eating on obesity and the correlation of emotional and external cue eating with positive and negative psychological factors, as well as early familial eating context. **Methods:** 483 young adults attending two universities completed instruments measuring obesity, emotional and external cue eating, familial eating patterns, depression, anxiety, stress behaviors and somaticism, optimism, self-esteem, resilience, gratitude, humility, happiness, religiosity, and disordered eating. **Results:** Disordered eaters (with anorexia, bulimia, purging signs) reported worse mental health and more emotional eating. Gender was the only consistent predictor of obesity and external cue eating. In addition to gender, being offered food for comfort as a child was an important predictor of emotional cue eating. **Discussion:** More emphasis should be given to familial eating context, particularly the practice of offering children food for comfort, as a potential precursor to young adult emotional eating behavior. **Translation to Health Education Practice:** Findings point to a potential need to monitor and to train primary caregivers and those supervising young children in other settings regarding the use of food for non-nutritional purposes, and to provide training to children on more constructive methods of coping with strong emotions.

Inbound College Students Drink Heavily during the Summer before Their Freshman Year: Implications for Education and Prevention Efforts

Aaron White and H. Scott Swartzwelder

Background: Alcohol misuse among college students remains a pervasive problem. Relatively little is known about alcohol consumption by incoming students during the summer between high school graduation and the start of the freshman year. It is possible that many students bring unhealthy drinking habits with them to college. **Purpose:** The present study examined patterns of alcohol use and related consequences among incoming college students during the summer before their freshman year. **Methods:** The dataset consisted of self-reported two-week drinking histories from 4,539 incoming freshmen at three universities during the summer of 2003. An average of 80% of all incoming students at the schools was surveyed. In the present study, drinking patterns, risk and protective factors, and alcohol-related consequences were examined. **Results:** Roughly 50% of college-bound students consumed alcohol in the two weeks before the survey. Nearly 30% of all students met or exceeded the threshold for binge drinking (4+ drinks for females; 5+ drinks for males). Among those who drank during the two weeks before the survey, roughly 50% of males and females consumed shots, 50% played drinking games, and 36% suffered hangovers. More than one in ten males and females experienced memory blackouts during the two-week period. Fourteen percent of males and 10% of females drove after drinking. Females were twice as likely as males to drink on an empty stomach to get drunk faster (8.2% and 4.1%) and four times as likely to drink on an empty stomach to save calories (12.8% and 2.9%). **Discussion:** Many students bring unhealthy drinking habits with them to college and experience blackouts,

hangovers, and other consequences during the summer before they arrive on campus. Translation to Health Education Practice: Alcohol education and prevention programs should target students prior to their arrival on college campuses.

Exploring Gender Differences in the Relationship between HIV/STD Testing and Condom Use among Undergraduate College Students

Jean Breny Bontempi, Raymond Mugno, Sandra M. Bulmer, Karina Danvers, and Michele L. Vancour

Background: Rates of HIV/AIDS, and other sexually transmitted diseases (STDs), are increasing among university students. Purpose: The purpose of this study was to examine gender differences in the relationship between condom use and (1) HIV/STD testing behaviors, (2) STD treatment behaviors and, (3) alcohol use behaviors. Methods: A survey was administered to 1,500 undergraduate students in a university system in the Northeast. Frequency tests and the Fisher Exact test for associations were conducted. Results: Analysis was conducted on 1,410 surveys. Rates of sexual behavior were high, while condom use was reportedly low. Females reported higher rates of sexual activity and lower rates of condom use. Females who had been tested for HIV and STDs reported significantly lower rates of condom use than those not tested. Even more significant, females who had been treated for an STD reported low rates of condom use. Discussion: College students are reportedly continuing to practice unsafe sexual behaviors despite health education efforts on college campuses, especially females. Future research should explore the causal relationship between HIV/STD testing and treatment behaviors and condom use. Translation to Health Education Practice: This study suggests new ways of conceptualizing health education programming on college campuses through multilevel programming targeting behavioral concepts, such as perceived risk.

Behavioral Intention and Behavior toward the Obese on a College Campus: An Exploratory Analysis of Discriminatory Behavior

Carol Irwin, Cynthia W. Symons, and Dianne L. Kerr

Background: Discriminatory behavior toward the obese is ubiquitous, which can lead to psychological conditions that exacerbate physical repercussions. Purpose: Using the Theory of Planned Behavior (TPB), this study examined the link between college students' behavioral intention and self-reported behavior toward the obese. Possible connections with demographic variables were explored. Methods: Students at one university participated (n=718). Two scales were developed; one measured behavioral intention - College Obesity Behavioral Intention Scale (COBIS); one measured behavior - College Obesity Behavior Scale (COBS). Alphas fell in the acceptable to excellent range for both instruments. Results: There was a statistically significant correlation ($r=0.6642$; $P=0.001$) between the COBIS and COBS. Linear regression was significant ($R^2=0.4412$; $P=0.001$). A significant regression model ($P=0.001$) consisting of age group, sex, and BMI status by COBIS and COBS scores was found. Discussion: Behavioral intention among subjects had a significant impact on how they behaved toward the obese. Predictor characteristics for this discriminatory behavior are being male, younger-aged (18-25 years), and have an underweight or normal Body Mass Index (BMI). Translation

to Health Education Practice: Further research could identify other TPB constructs (attitude, subjective norms, and perceived behavioral controls) that can shape behavioral intention toward the obese among college students.

Methodological Issues Related to the Use of $P < 0.05$ in Health Behavior Research

Elias Duryea, Stephen P. Graner, and Jeremy Becker

This paper reviews methodological issues related to the use of $P < 0.05$ in health behavior research and suggests how application and presentation of statistical significance may be improved. Assessment of sample size and $P < 0.05$, the file drawer problem, the Law of Large Numbers and the statistical significance arguments in epidemiology, health behavior, and psychology were examined. The reporting of confidence intervals (CI), effect sizes (ES), and use of non-statistical graphics can improve portrayal and understanding of findings. Health behavior literature has had some scholarly examination of how to improve analysis of findings but has not had an in-depth dialog on other concepts related to $P < 0.05$. Attention to these concepts could improve clarity in how research outcomes are presented and thereby increase credibility of health behavior research.