

# **SELF-EFFICACY AND THE MODERATE (OR LESS) DRINKER: A SURVIVOR'S GUIDE FOR COPING WITH HEAVY DRINKING ON (OR NEAR) COLLEGE CAMPUSES**

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## **ABSTRACT**

Research has shown that symbolic modeling and persuasive sources of efficacy information are encouraging message strategies for enhancing college-student drinkers' and nondrinkers' ( $N = 241$ ) perceived self-efficacy and behavioral intentions to intervene to prevent a friend from driving drunk. This experiment tested the impact of these sources on a subsample ( $N = 127$ ) of light and moderate drinkers' perceived self-efficacy and intentions to intervene. As in the larger sample, symbolic modeling had the greater impact on both dependent measures, as well as on resisting a friend's counterarguments. Results suggest directions for social marketing campaign interventions based on self-efficacy theory.

## **LITERATURE REVIEW**

This study addressed one of the most-debilitating social illnesses facing U.S. college campuses and nearby surrounding areas: the heavy drinker and his or her drunken driving. College presidents concur that binge drinking is the most-serious problem on their campuses [4]. The study proposes that social intervention, although more personally risky, is a more practical, effective, and economic strategy for preventing alcohol abuse and drunken driving among college students than are other digital and mainstream-media-based strategies that encourage, but do not teach, proper social-interaction skills and build perceived self-efficacy. The study is grounded in the self-efficacy component of Bandura's [2, Chapter 7] social cognitive theory [SCT] and is based on Bandura's [2, p. 302-310] model of self-directed change for risk-reduction campaigns. Self-efficacy is the belief that prospectively challenging tasks or situations can be managed successfully through the cognitive appraisal of performance capability [1] [2], and is a stronger predictor of intentions and health behavior than are attitudinal and normative social influences [5]. It differs from self-esteem because it is situational, rather than a global personality trait [2, Chapter 1]. Highly efficacious persons can perform poorly at some tasks without lowering their self-esteem, because their self-worth is not involved in accomplishing the tasks.

### **Social cognitive theory**

SCT explains human functioning, or human agency, in terms of triadic reciprocal causation [2]. Personal agency refers to the intentional influence of one's thoughts and actions. In this conceptual scheme, internal personal factors (e.g., perceived efficacy to intervene), behavior (e.g., intervention), and the social environment (e.g., the social rewards and health benefits of intervention) interact to influence each bidirectionally. As the core belief of personal agency, self-efficacy is the foundation upon which SCT is

built. It determines whether people will undertake certain courses of action, how much effort they will expend, and their persistence to overcome actual and psychological obstacles in their environments. This suggests that efficacy-enhancing messages tailored to responsible college-student drinkers would induce them to intervene based on the strength of their perceived self-efficacy and behavioral intentions. Public health campaigns to prevent widespread health problems should be designed to facilitate self-directedness by enhancing agentic capabilities. This type of innovative change process is discussed next and is tested in the present study.

### **Strength and Generality of Perceived Self-Efficacy**

As mentioned, perceived self-efficacy is the belief that people can exercise control over their thoughts and actions in different situations that often tax capabilities [2]. Accordingly, Maibach and Murphy [6] have recommended that perceived self-efficacy be measured as a graded series of situational demands from least to most difficult. Strength of self-efficacy is then measured for each increasingly difficult scenario or task. Less-efficacious persons restrict themselves to the easiest, most-simple tasks, while highly efficacious persons perform the most arduous and persevere despite dissuading experiences, especially early setbacks. Such information can be used to form new types of behavior, which further strengthens self-efficacy. Generality of self-efficacy refers to the extension of confidence to the performance of similar and dissimilar tasks within the same behavioral domain (i.e., within-domain generality, as reported here) or across related domains (i.e., between-domain generality).

### **Sources of Efficacy Information**

Information about personal capability is acquired from four sources of efficacy information: (a) performance accomplishments, the most influential source because it is based on direct mastery experience; (b) vicarious experience, which uses live or symbolic modeling to instill expectations of successful performance through observation; (c) verbal, or social, persuasion, which relies on suggestion and exhortation to raise beliefs of perceived capability; and (d) emotional arousal, which affects level of anxiety and vulnerability to stress. The impact of these sources will depend on how they are cognitively appraised in terms of instilling a robust sense of perceived self-efficacy [2]. This study tested modes of the vicarious experience and verbal persuasion sources because symbolic modeling (e.g., advocating and demonstrating a health behavior) and social persuasion (e.g., only advocating a health behavior) are common message strategies in social marketing campaigns that employ public service announcements and complementary newsworthy publicity.

### **Rationale and Independent and Dependent Variables**

As a mode of vicarious experience, symbolic modeling refers to observing a model indirectly, as on television; on social media such as Facebook, YouTube, Instagram, Pinterest, and Flickr; through verbal description; by reading; or in a picture or poster [2, Chapter 3]. Because all that is observed cannot be retained, only the salient features of

certain modeled activities are stored for memory representation. Modeled information is coded as symbols that subsequently guide behaviors that are functionally valued. By comparison, self-efficacy beliefs induced persuasively are typically weaker than are those instated vicariously, because they rely on the assurance of a spokesperson to exhort beliefs of capability rather than on observation of the successful performance of a stressful behavior, or indirect experience. Behavioral intentions should be affected similarly by both sources. The impact of these sources of efficacy information was tested on perceived self-efficacy and intentions to intervene. Based on the review of the literature, the discussion of self-efficacy theory, and the preceding rationale, this study postulated:

**H1:** Regarding sources of efficacy information among light and moderate drinkers, symbolic modeling will have greater impact on perceived self-efficacy and behavioral intentions to intervene than will verbal persuasion, which will have greater impact than a no-efficacy information source.

**H2:** Regarding sources of efficacy information among light and moderate drinkers, symbolic modeling will have greater impact on resisting a friend's counterarguments to intervening than will verbal persuasion, which will have greater impact than a no-efficacy information source.

Because the public service messages did not mention or depict intervening to dissuade a casual acquaintance or stranger (i.e., affect the within-domain generality of perceived self-efficacy) from abusing alcohol and driving drunk, the following research question was posed:

**RQ1:** Among light and moderate drinkers, will either source of efficacy information affect within-domain generality of self-efficacy and intentions to intervene more than will a no-efficacy information source?

## **Method**

### **Participants**

Participants were 127 light and moderate drinkers from a larger sample ( $N = 241$ ) of all types of drinkers and nondrinkers enrolled in several communication courses at a large Southwestern university [1]. They volunteered and received extra credit. One hundred eleven (76.8%) were female and 29 (23.2%) were male. The mean age was 20.88 ( $SD = 2.40$ ). Participants were randomly assigned to experimental conditions in the larger study: symbolic modeling ( $n = 49$  of the 66 in the larger study), verbal persuasion ( $n = 39$  of the 60 in the larger study), and control ( $n = 39$  of the 55 in the larger study).

Moderate drinking was defined as one alcoholic drink a day for women and two for men (7, Chapter 3). The difference is because women become more intoxicated than men at the same rate of consumption. Moderate drinking is more desirable than social drinking, because the latter can be irresponsible and excessive and cause problems for individuals and society, which moderate drinking typically does not.

## Procedure and Treatment Conditions

Two efficacy-enhancing PSAs were produced to test the impact of the independent variables: symbolic modeling and verbal persuasion. Each efficacy-information PSA contained reassuring persuasive-efficacy information on ease of performance, expression of concern, successful performance, and a friend's appreciation for intervening. For example, in the symbolic modeling condition the spokesperson, a male moderate drinker, demonstrated the intervention skills in increasingly difficult situations; in the verbal persuasion condition, the spokesperson only reassured participants they would succeed in these situations if they intervened; and the no-efficacy information control spot used a humor appeal that emphasized the consequences of DWI. The critical difference between the two conditions was the demonstration of the intervention skills in the symbolic modeling condition.

## Dependent Measures

Strength of self-efficacy to intervene was rated with a behavioral hierarchy from least- to most-difficult tasks on 11-point Likert-type scales ranging from 0 (*not at all confident*) to 10 (*extremely confident*). Participants judged their confidence to ask a host/hostess or bartender not to serve a friend (least-difficult task); to ask someone they know to help them express concern; to express their concern by themselves; and how persistent they would be if a friend counterargued and resented their intervention (most-difficult task). Alpha for this index was .77. Two single items assessed within-domain generality. Participants rated the strength of their perceived self-efficacy to intervene successfully with similar and dissimilar tasks. They rated on 0 to 10 scales how confident they would be right now to intervene with a casual acquaintance (similar task) and with a stranger (dissimilar task). Participants rated their behavioral intentions, or the likelihood they would intervene, for each of the four tasks in the strength index on 11-point scales ranging from (*not at all likely*) to 10 (*extremely likely*). Cronbach's coefficient alpha was .72.

## Results

Hypothesis 1 was confirmed. Results disclosed significant differences in the predicted direction between the symbolic modeling ( $M = 7.64$ ,  $SD = 1.71$ ) and verbal persuasion conditions ( $M = 7.08$ ,  $SD = 1.05$ ;  $t[86] = 1.79$ ,  $p = .038$ ,  $\eta^2 = .04$ ) and between symbolic modeling and the no-efficacy control ( $M = 5.31$ ,  $SD = .996$ ;  $t[86] = 7.54$ ,  $p < .001$ ,  $\eta^2 = .40$ ) on strength of perceived self-efficacy to perform the tasks in the behavioral hierarchy. As expected, verbal persuasion exhibited significantly stronger perceived self-efficacy than did the no-efficacy control ( $t[76] = 7.60$ ,  $p < .001$ ,  $\eta^2 = .43$ ).

Results for H1 indicate the close correspondence between strength of self-efficacy and behavioral intentions. Participants in the symbolic modeling condition ( $M = 7.48$ ,  $SD = 1.59$ ) were significantly more likely to perform the intervention tasks than were those in the verbal persuasion condition ( $M = 6.90$ ,  $SD = 1.03$ ;  $t[86] = 1.99$ ,  $p = .025$ ,  $\eta^2 = .04$ ) and the no-efficacy control ( $M = 5.29$ ,  $SD = 1.02$ ;  $t[86] = 7.44$ ,  $p < .001$ ,  $\eta^2 = .39$ ). Participants in the verbal persuasion condition were significantly more likely to intervene than were those in the no-efficacy control ( $M = 5.29$ ,  $SD = 1.02$ ;  $t[76] = 6.87$ ,  $p < .001$ ,  $\eta^2 = .38$ ).

Hypothesis 2 was confirmed. It predicted symbolic modeling would instate the strongest perceived self-efficacy and behavioral intentions to resist a friend's counterarguments, followed in order by verbal persuasion and a no-efficacy source on the most-difficult task in the behavioral hierarchy. Results revealed significant differences in the predicted direction between the symbolic modeling ( $M = 7.96$ ,  $SD = 1.69$ ) and verbal persuasion conditions ( $M = 6.87$ ,  $SD = 1.58$ ;  $t[86] = 3.06$ ,  $p = .002$ ,  $\eta^2 = .10$ ) and between the symbolic modeling condition and the no-efficacy control ( $M = 4.85$ ,  $SD = 1.37$ ;  $t[86] = 9.30$ ,  $p < .001$ ,  $\eta^2 = .50$ ), as well as between the verbal persuasion condition and the no-efficacy control ( $t[76] = 6.06$ ,  $p < .001$ ,  $\eta^2 = .33$ ). Participants in the symbolic modeling condition ( $M = 8.06$ ,  $SD = 1.52$ ) were significantly more likely to persist in their efforts to resist a friend's counterarguments than were those in the verbal persuasion condition ( $M = 6.77$ ,  $SD = 1.73$ ;  $t[86] = 3.71$ ,  $p < .001$ ,  $\eta^2 = .14$ ) and the no-efficacy control ( $M = 5.33$ ,  $SD = 1.64$ ;  $t[86] = 8.06$ ,  $p < .001$ ,  $\eta^2 = .43$ ). Participants in the verbal persuasion condition were significantly more likely to persist in their efforts than were those in the no-efficacy control ( $t[76] = 3.74$ ,  $p < .001$ ,  $\eta^2 = .16$ ).

The research question asked if either source of efficacy information would affect within-domain generality of self-efficacy and intentions to intervene more than would a no-efficacy- information source. This question was answered in the affirmative, but primarily for engaging an acquaintance, not a stranger (see Table 1). Although symbolic modeling ( $M = 5.43$ ,  $SD = 1.97$ ) and verbal persuasion ( $M = 5.41$ ,  $SD = 1.86$ ;  $t[86] = .044$ ,  $p = .48$ ) did not differ significantly on the generality of perceived self-efficacy for the similar task (i.e., confidence to intervene with an acquaintance) each source of efficacy information differed significantly from the no-efficacy control ( $M = 4.18$ ,  $SD = 1.81$ ; symbolic modeling:  $t[86] = 3.04$ ,  $p = .002$ ,  $\eta^2 = .11$ ; verbal persuasion:  $t[76] = 2.95$ ,  $p = .002$ ,  $\eta^2 = .10$ ). The only contrast to reach significance on the dissimilar task (i.e., confidence to intervene with a stranger) was that between symbolic modeling ( $M = 3.76$ ,  $SD = 2.49$ ) and the control ( $M = 2.77$ ,  $SD = 2.13$ ;  $t[86] = 1.96$ ,  $p = .02$ ,  $\eta^2 = .04$ ). The pattern of results for the generality of intentions to intervene with an acquaintance and a stranger are the same as they are for the generality of perceived self-efficacy. Again, symbolic modeling ( $M = 5.57$ ,  $SD = 2.27$ ) and verbal persuasion ( $M = 5.38$ ,  $SD = 1.84$ ;  $t[86] = .416$ ,  $p = .339$ ) did not differ significantly on the similar task, but they did differ significantly from the control ( $M = 4.36$ ,  $SD = 2.12$ ; symbolic modeling:  $t[86] = 2.56$ ,  $p = .006$ ,  $\eta^2 = .06$ ; verbal persuasion:  $t[76] = 2.27$ ,  $p = .01$ ,  $\eta^2 = .06$ ). The only contrast to reach significance on the dissimilar task was that between symbolic modeling ( $M = 3.37$ ,  $SD = 2.29$ ) and the control ( $M = 2.46$ ,  $SD = 2.03$ ;  $t[86] = 1.93$ ,  $p = .02$ ,  $\eta^2 = .04$ ).

## Discussion

This study examined the effects of two sources of efficacy information on moderate and light drinkers' perceived self-efficacy and intentions to intervene to prevent a friend from driving drunk. It also investigated the effects of these sources on the within-domain generality of perceived self-efficacy to determine if the effects of the latter would generalize to engaging a casual acquaintance or a stranger. Consistent with predictions from SCT and the results of the larger-sample study [1], the effects of symbolic modeling were greater than those of verbal persuasion on both dependent measures for these

responsible drinkers. This also held for beliefs about the most-difficult intervention task in the behavioral hierarchy for perceived strength of self-efficacy—resisting a friend’s counterarguments. Although neither source of efficacy information differed significantly on within-domain generality of perceived self-efficacy and behavioral intentions, each had pronounced effects on the similar and dissimilar tasks when contrasted with the no-efficacy information control condition. This encouraging finding indicates either source of efficacy information could encourage intervention among casual acquaintances, but only symbolic modeling instates self-assuredness to the extent that light and moderate drinkers would intervene to prevent a stranger from driving drunk. This is a key finding because it indicates that these responsible drinkers are willing to intervene to change the ritualistic, excessive-drinking culture at their university, even if it means leaving the security of their peer groups to engage heavy drinkers individually. Without skills training, the null effect for social persuasion is understandable, because it is inherently more risky than expressing concern to a friend or an acquaintance. Empirically, these data show that the absence of skills training in the social persuasion condition explains why these responsible drinkers are less confident of their abilities to perform these within-domain behaviors. The major outcome of this multicomponent model of personal change is control over health behavior, which could lead to similar within-domain behaviors, such as intervening to help a friend with an eating disorder. Adoption of this approach by universities would transform them into enabling organizations that provide students with the means, resources, self-efficacy, and social supports to lead to a healthy lifestyle while nourishing their minds and establishing some of the most-significant organization-public relationships in society.

## REFERENCES

- [1] Anderson, R. B., Comparison of indirect sources of efficacy information in pretesting messages for campaigns to prevent drunken driving. *Journal of Public Relations Research*, 2009, 2(4), 428-454.
- [2] Bandura, A. *Self-Efficacy: The Exercise of Control*. New York, Freeman, 1997.
- [3] *Binge Drinking on College Campuses*. Center for Science in the Public Interest, 2008. Retrieved from [www.cspinet.org/booze/collfact1.htm](http://www.cspinet.org/booze/collfact1.htm)
- [4] DeVries, H., Dijkstra, M., & Kuhlman, P. Self-efficacy: The third factor besides attitude and subjective norms as a predictor of behavioural intentions, 1988, *Health Education Research*, 3, 273-282.
- [5] Maibach, E., & Murphy, D. A., 1995, Self-efficacy in health promotion research and practice: Conceptualization and Measurement. *Health Education Research*, 10, 37-50.
- [6] U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary guidelines for Americans* (7th ed., pp. 30-32). Washington, DC: Government Printing Office, 2010, December. Retrieved from [www.health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf](http://www.health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf)