

Overcoming Bystander Apathy and Non-Intervention in Alcohol-Poisoning Emergency Situations: Advancing Field Testing of Training-for-Intervention Theory via Thought Experiments

Carol M. Megehee

Wall College of Business Administration, Coastal Carolina University, U.S.A.

Sandra K. Strick

School of Hotel, Restaurant and Tourism Management, University of South Carolina, U.S.A.

Arch G. Woodside*

Carroll School of Management, Boston College, U.S.A.

Abstract

Consider groups of partying college students failing to helpfully assist someone in life-threatening distress from alcoholic poisoning. Anecdotal evidence (Davis and DeBarros, 2006) supports the social-norming theory subfield of unresponsive bystander research by Latane and Darley (1970) and others (Cialdini and Goldstein, 2004). This article is a call for structurally transforming the dynamics of the unfolding dramas in natural groups where alcoholic poisoning leading to death occurs. The present article includes the proposal for a quasi-experiment of natural groups (members of fraternities and sororities) in naturally occurring contexts (party situations) using placebo, a standardized training for intervention programs for servers (TIPS) designed for peer intervention, and two versions of advanced TIPS designed to structurally introduce a designated interventionist (DI). The DI and DI training designs are crafted to overcome the unresponsive bystander effect. The proposal includes thought experiments to explain both short- and long-term dependent measures of program impact in such quasi-experiments that include immediate measures of alcohol drinking and intervention knowledge, the medium-term creation and assignment of a group DI position, and the long-term interventionist behavior of groups appointing persons holding DI appointments versus groups not making such appointments.

Key words: intervention; alcoholic poisoning; thought experiments; training

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*Correspondence to: Boston College, Carroll School of Management, 140 Commonwealth Avenue, Chestnut Hill, MA 02467, U.S.A. E-mail: arch.woodside@bc.edu. The authors express their gratitude to the IJBE reviewers and Pao-Long Chang, IJBE Editor-in-Chief, for the insightful comments on the prior submitted version of this paper.

1. Introduction

Eighteen percent of US college students (24% of males, 13% of females) suffer from significant alcohol-related problems annually (Slutske, 2005). The relevant literature describes a number of incidents that include alcohol drinking by college students in social settings (e.g., fraternity parties) resulting in a student passing out from binge drinking and receiving no trained medical treatment leading to her/his death—even though several persons are present and recognize that the unconscious student has passed out due to binge drinking (e.g., Davis and DeBarros, 2006).

The bystander apathy/nonintervention effect (BANE) is a naturally occurring, empirically established phenomenon in social psychology (e.g., Darley and Latane, 1968; Garcia et al., 2002; Latane and Darley, 1968, 1969, 1970; Latane and Nida, 1968). A person in a situation that includes another person in distress and the knowledge that others are also present and available to respond is slower and less likely to respond to the person in distress than is a person who knows that he or she is the only one who is aware of the distress.

The court case relating to the death of Daniel Reardon, a 19-year-old University of Maryland freshman is an example of death by alcoholic poisoning that includes the BANE. Danny had taken part in a fraternity drinking ritual and was unconscious.

When Danny passed out at about 11:30 PM on Feb. 7, 2002, fraternity members put him on a sofa, took his pulse and according to court records and police reports, took turns watching him. Early the next morning, Danny stopped breathing. Students at the fraternity house called for an ambulance about 3:30 AM but Danny's brain had ceased functioning when he reached the hospital According to court documents, fraternity members put Danny in a room, closed the door and told others that they would care for him and to stay out. In a lawsuit, Danny's parents said that by preventing others "who might have been more responsible" from seeing their son, the fraternity members denied Danny "the help he obviously needed under the circumstances." "Over a period of hours until he became cyanotic (a bluish discoloration caused by a lack of oxygen) during which time Daniel lay unconscious, unresponsive, and with vomit running from his nose," fraternity members and others "did homework and passed about the duty to watch Daniel," the civil suit said. The other students, the suit said, "provided absolutely no reasonable assistance to Daniel" (Davis and DeBarros, 2006).

Given that binge alcohol drinking and related rituals occur among college students that sometimes result in permanent disabilities and loss of life, what successful intervention strategies can be crafted to achieve actions by persons in such contexts that actually aids the alcohol-drinkers in distress? The present article

focuses on this issue.

Some findings in the BANE literature informs the proposal that such context-specific structural changes and actions in situations can be designed that aid individuals and groups to initiate behaviors that help persons in life-threatening distressful states. For example, the identification or signaling of one person, in particular, to be responsible for taking effective action reduces the BANE and increases the frequency that action helpful to a victim occurs (e.g., Darley et al., 1973).

Current *TIPS*[®] *for the University* (hereafter TIPS, see *TIPS University Trainer Supplement*, 2005) focuses on helping to prevent intoxication and alcohol misuse on college campuses and does not include coaching students to overcome the BANE. TIPS does not include context-specific structural changes and actions to overcome the BANE. The present study creates structural changes and actions in response to the BANE in the context of college students' alcohol-drinking party rituals and examines the short- and long-term influences of transforming TIPS to include these structural changes and actions. Prior BANE literature informs the design of structural changes and actions that may be useful in overcoming BANE and ultimately aids in ending alcohol-related life-threatening emergencies.

A key point here is that the present proposal does not focus on testing whether or not the BANE might occur in contexts of college students' alcohol-drinking party rituals. Rather, the present study focuses on crafting and implementing helpful specific group-related interventions to overcome life-threatening group contexts that involve alcohol-drinking. This study asks and attempts to answer how the structure of the group, situation, and personal communications can be transformed to overcome the human group tendency favoring the BANE and instilling mindfulness actions (Langer, 1989) that most likely end the emergency and saves lives.

The present TIPS (2005) programs do not include training in role-playing, although TIPS includes role-playing modules. Does professional role-playing training of participants in TIPS increase the effectiveness of structurally modifying groups and actions designed for successful interventions in alcohol-drinking related emergencies? The present study includes raising and examining this issue. Given that training in drama, role playing, is a recognized field of professional training in universities and college, professional role-playing training should help increase students agreeing and behaviorally adopting the group structural changes and actions recommended in modified TIPS programs.

The present report builds on Levine's (1999) prior call for the theory development and empirical study of intervention strategies to overcome bystander non-intervention. Levine emphasizes that bystander apathy is a long established phenomenon in social psychology which has yet to be translated into practical strategies for increasing bystander intervention. "The traditional paradigm is hampered by a focus on the physical co-presence of others rather than an analysis of the social meanings inherent in (non)intervention. It is argued that bystander (non)intervention phenomenon should be analyzed in terms of the construction of social categories in local contexts" (Levine, 1999, p. 1133).

2. Hypotheses

Hypothesis H₁: Compared to the present TIPS program and placebo training, expanding TIPS to include training intervention (hereafter TIPS-I) that changes the groups' structure and actions in naturally occurring situations involving a college student in a life-threatening alcohol-related emergency increases awareness and adoption of changes to a groups' structure and actions designed to intervene in such emergencies.

Hypothesis H₂: Compared to the present TIPS program, placebo training, and TIPS-I, expanding TIPS-I to include training in professional role-playing training (hereafter TIPS-IR) awareness and adoption of changes to a groups' structure and actions designed to intervene in college student alcohol-related emergencies.

The discussions above include the rationale for each hypothesis. Relating to H₁, the BANE literature includes the suggestion that modifying the group structure increases the likelihood of helpful response to a victim of an emergency. Identifying and signaling one person to be responsible for taking intervention action is an example of such modifying the structure of a group—especially when this individual's designated responsibility is well known and accepted by other bystanders in the emergency situation.

Relating to H₂, given that extensive professional training in role-playing to several players in a life-threatening drama enactment achieves increases in emotional involvement, knowledge about the emergency and its dangerous consequences, both commitment to action and action itself should be greater than when no such training is experienced.

3. Method

The present proposal includes calling for a quasi-experiment (Shadish et al., 2002) with naturally existing college-age groups, each assigned randomly to one of multiple treatment conditions. The proposal includes applying thought experiments in crafting field studies that are do-able with reasonably large estimated effect sizes of treatment conditions that are likely to guide in designing effective future intervention programs. Thought experiments include creating details that describe alternative research designs with alternative findings that support versus refute alternative theories (cf. Brown, 1991; Kahn and Luce, 2009; Sorenson, 1992). Thought experiments are “what-if” examinations of what findings are likely to occur that fit versus do not fit alternative theories under investigation. Taking such imaginary experimentation steps helps clarify theory as well as procedure; the forecasting research literature supports the conclusion that breaking down global predictions into simpler component predictions—as made in thought experiments—increases forecasting accuracy (Armstrong, 2001). Kahn and Luce (2009) use a thought experiment in a pretest to investigate how a patient's “false alarm” result on one occasion (i.e., a mammogram's indication that cancer is present when a “more accurate” follow-up test reveals it is not) affects willingness to get a regularly

scheduled mammogram the next time it is due.

We adapt the normative value of information framework by hypothesizing that stress may moderate reactions to a false positive test result. Study 1 demonstrates that a false alarm can delay planned testing adherence but only when that false alarm test result has no implications about the likelihood of future cancer. For patients receiving a false alarm result, information providing either problem-focused coping support by stressing the patient's control or emotion-focused coping support by stressing the frequency of false alarm results mitigates negative future adherence effects (Kahn and Luce, 2009).

Consider the following thought experiment relating to overcoming the BANE and subsequent intervention program development. Figure 1 shows the four treatments and the design of the quasi-experiment. Because the study focuses on responses of individuals in naturally occurring groups, the study includes four groups per treatment condition; the use of a necessary number of groups assigned randomly to treatments for a true experiment (e.g., 20 groups per treatment) would be prohibitive. Examples of using natural groups in quasi-experiments of alternative intervention strategies are available in the behavioral science literature (e.g., Evans et al., 1970).

3.1. Treatments

The proposal includes administering each of the four treatments in group setting training programs over a three-hour period. The four treatments include a placebo treatment of a three-hour training program unrelated to preventing intoxication, alcohol abuse, or alcohol emergency intervention strategies. Sexual disease prevention and treatment strategy is the focus of the placebo training. The hypotheses include the expectation that the average knowledge of students in the placebo groups about intoxication and alcohol abuse is lower than for students receiving TIPS, TIPS-I, and TIPS-IR training. Group structural changes and activities to achieve effective interventions in alcohol-related drinking emergencies are expected to be the lowest for the placebo groups.

The current TIPS (2005) program is the second treatment condition in the study. The third treatment is TIPS-I. TIPS-I includes storytelling (Schank, 1990) and role-playing training of the BANE, the suggestion of adopting, and details of the role of a fraternity or sorority elected office position of Vice President of Designated Intervention (VP-DI). The DI has the duties, responsibilities, and training to act mindfully in alcohol-drinking emergency situations, e.g., a party situation where a person has passed out with vomit running out of her or his nose. Schank (1990) instructs that storytelling is more effective than lecturing as a learning medium; the current TIPS (2005) program adopts this view in its extensive use of role-playing modules.

Figure 1. Experiment Research Design for Examining the Immediate and Long-Term Effects of Alternative Training for Intervention Procedures for Alcohol Prevention/Intervention Programs

Treatment Groups	Random Assignment of Groups to Treatments	Treatment Groups Description	Treatments	Examples of Dependent Measures	
				Short-term	Long-term
1 - 4	Yes	<ul style="list-style-type: none"> • 2 fraternities • 2 sororities 	Control: Placebo	TIPS Exam	DI?
5 - 8	Yes	<ul style="list-style-type: none"> • 2 fraternities • 2 sororities 	Standard TIPS	TIPS Exam	DI?
9 - 12	Yes	<ul style="list-style-type: none"> • 2 fraternities • 2 sororities 	TIPS-I	TIPS Exam	DI?
13 - 16	Yes	<ul style="list-style-type: none"> • 2 fraternities • 2 sororities 	TIPS-IR	TIPS Exam	DI?

Key: DI = Designated Interventionist

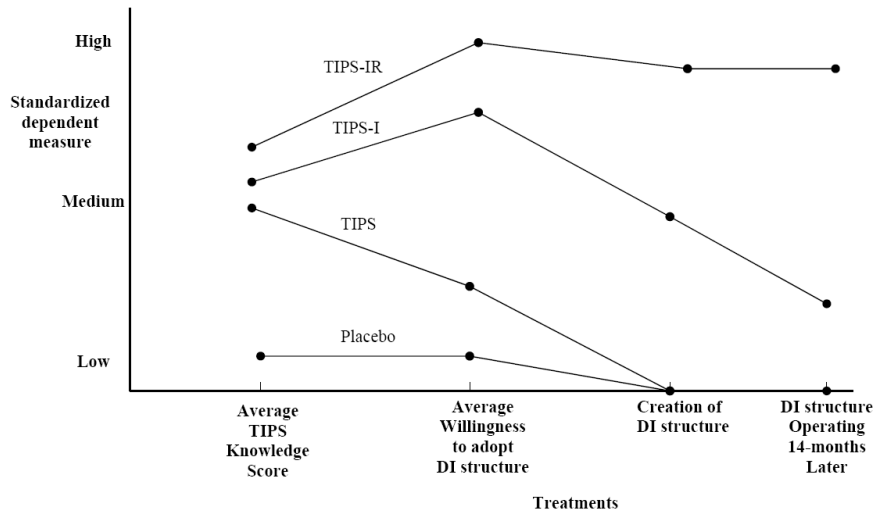
Notes: This quasi-experiment is to test alternative intervention strategies designed to overcome negative social norming theory behavior (e.g., the unresponsive bystander effect, see Latane and Darley, 1970). The design for this quasi-experiment includes self-replicating each treatment—the study includes two fraternities and two sororities for each of the four treatments. This quasi-experiment focuses on testing the influence of creating and role-playing a DI in critical incidents (i.e., a friend vomiting, passing out, with high likelihood of alcohol poisoning leading to death) on immediate and long-term responses by real-life college groups in natural contexts (i.e., party in house at 2 AM); long-term includes observing for 14 months following the training to learn if a VP-DI position is created and filled in each fraternity/sorority—and actions taken in emergencies.

The fourth treatment is TIPS-IR. This treatment includes the DI training plus 9 hours (in 3 three-hour units) of professional drama and role-playing training taken by five regular members of the fraternities and sororities receiving this treatment. The training is designed to achieve increases in emotional involvement and knowledge of effective and effective actions of both actors enacting the simulated emergency as well as bystanders of the emergency. The fraternity and sorority members participating in the training are selected by a trained casting director (e.g., a professor of drama in a university or college theater department). Training could be completed one week before the standard TIPS training sessions are held. Each of the four groups (2 fraternities and 2 sororities) in the fourth treatment condition receives the intervention DI and role-playing training independently of each other group.

3.2 Dependent Measures

Figure 2 includes the dependent measures and hypothetical findings that support the hypotheses of the study. The dependent measures include both paper-and-pencils self-report and direct observation data collection.

Figure 2. Thought Experiment Findings Supporting the Hypotheses



The paper-and-pencil data includes administering the standard TIPS testing of knowledge of intoxication and alcohol abuse by all persons in all 16 groups (including students completing and missing the four training programs).

Self-report data includes a three-item measure of willingness to adopt an organization structure to include a VP-DI for alcohol-related emergency intervention agreeing-to-comply with such a group structural change.

Whether or not each of the 16 groups creates and implements a VP-DI position within three months of completing the placebo, TIPS, TIPS-I, or TIPS-IR training is measured as an indication of actual compliance with the DI suggestion.

Whether or not each of the 16 groups has a VP-DI position 14 months after completing the placebo, TIPS, TIPS-I, or TIPS-IR training is measured as an indication of continued compliance with the DI suggestion. Data is also be collected at the 14th month about whether or not interventionist actions were actually taken for each of the 16 groups—with and without VP-DI position being implemented by the groups.

4. Theoretical Findings

Figure 2 shows hypothetical results among the students completing the training in the four treatment conditions. The four groups experiencing the placebo training are expected to have the lowest TIPS knowledge average scores. The groups in the other three treatments conditions are expected to have similar TIPS knowledge average scores—with higher average scores for TIPS-I and TIPS-IR versus TIPS not

being significant statistically.

Willingness to adopt an organization structure that includes the election of a VP-DI is expected to be highest for the four groups in the TIPS-IR condition followed by the four groups in the TIPS-I followed by the four groups in the TIPS treatment.

Actual creation of the VP-DI position is expected to occur mostly for the groups receiving the TIPS-IR, though creation of the VP-DI should occur more often for the groups receiving the TIPS-I versus the TIPS training. Fourteen months later, the groups receiving the TIPS-IR training are more likely than the groups receiving the other three training conditions to have the position of VP-DI.

The standardized dependent measures appearing in Figure 2 can be individual or a combination of BANE intervention metrics including the number of specific steps taken in intervening in an emergency, number of persons participating in the interventions, intervention milestone response times, speed of improvement in vital signs of patients in BANE-related contexts, and the number of failures/deaths in such contexts. Standardization and combination of these metrics is possible using z-score transformations in statistical analysis or by calibrating the scores using fuzzy-set qualitative comparative analysis (see Ragin, 2008).

5. Limitations

The intention is that this study is an exploratory demonstration of the potential effectiveness of group structural change and action strategies to overcome the BANE and professional role-playing for increasing the coverage of TIPS to include intervention along with prevention training related to alcohol-related drinking emergencies. Additional independent studies are necessary to support and extend the findings of the present thought experiment.

6. Potential Implications for Training and Practice

Substantial evidence in behavioral science research supports the occurrence of the BANE in a wide variety of emergency contexts (Garcia et al., 2002). This proposal does not focus on providing additional evidence on testing whether or not the BANE occurs in alcohol-related emergencies within group settings of college students. Following the proposition that the alcohol-related emergencies that include the BANE do occur, and likely occur more frequently than fires in fraternity and sororities houses, formal, explicit training in knowledge of the BANE in alcohol-related emergency situations and the installation of a new group structure to overcome the BANE likely saves lives in such emergencies. This BANE-related intervention training includes design steps to increase both individual and group sense making and accepting of responsibility that specific actions well-known to help do exists in alcohol-related emergencies and that such actions must be taken quickly.

Just as fraternity and sororities members and their houses have some equipment

and training in place on what to do in fire emergencies, the present study findings may support the proposition metaphorically that some equipment and training needs to be in place and ready to be applied to overcome the BANE.

The proposals for transforming TIPS to explicitly focus on alcohol-related emergency intervention training as well as prevention needs support both in creating and implementing examples of such explicit intervention programs. Similarly, based on the success of drama training programs, some amount of professional training in role-playing is likely to result in a positive double-whammy effect on overcoming the BANE. First, actors completing such professional training are more likely to acquire high commitment, knowledge, and skills to act in alcohol-related emergencies. The impact is likely to be more substantial on college students observing more polished, emotional performances done by role-playing by members of their fraternity/sorority professionally trained both on to not act and to act in alcohol-related emergencies compared to observing persons in first-time role-playing performances.

7. Advancing Research on BANE

Empirical findings of the propositions in this research proposal would support creating, and possibly requiring, two steps. First, training in the need for and requiring structural changes in formal groups of college students (e.g., fraternities and sororities) to help overcome the BANE in alcohol-related emergencies may be justified throughout the United States. Second, just as explicit written safety checks must be completed before a pilot and co-pilot take an aircraft into the sky, completing explicit written safety checks might be necessary on a regular basis on the implementation of alcohol-related emergency interventions. Unfortunately, the need for training on what to do and how to act responsibly in alcohol-related emergency situations is necessary—and this need includes training in being aware that humans (all of us) frequently do nothing or take actions that may increase distress and contribute to causing death.

Field research on BANE need not begin with designing and implementing a true experiment with control and treatment conditions. The execution of quasi-experimental designs using case studies of two-to-six participating fraternities and/or sororities would be informative. Campbell (1968, 1969) provides the necessary theoretical and applied methodological knowledge and skill-building instructions for performing such quasi-experiments. Such quasi-experiments include taking BANE measurements before, during, and after introducing strategies to prevent BANE for one case or a limited number of cases (organizations) but not all cases. Longitudinal measurements and the use of comparison cases are key features in informative quasi-experimentation designs.

8. Conclusions

Effective training in intervention of alcohol-related emergency situations likely

needs to address and overcome the BANE. Role-playing in TIPS is likely to be more effective when students receive professional training in how to role-play effectively. This study is unique and valuable in recognizing this need and in designing and implementing a program designed to be effective in overcoming the BANE and in achieving the benefits of professional role-playing training.

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