PSAs: A Means for Influencing College-Aged Young Adults

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Abstract

The over-consumption of alcohol by college-aged adults continues to be a societal problem. This study analyzed the effect of Public Service Announcements (PSAs) designed to counteract alcohol advertisements on the behavior of college-aged consumers of alcohol. The researcher conducted a review of the literature as a means of discussing the issue. The aim of this research was to find the most effective means for discouraging alcohol over-consumption, specifically binge drinking, in college-aged adults, and for encouraging the responsible use of alcohol. The researcher examined media elements in relation to two theoretical frameworks as a means of conducting the research. This research contributes to continuing research efforts that recognize the need for PSAs to produce effective behavioral changes among young adult audiences.

The alcohol industry has reached billions of consumers—many of them college-aged adults—with the assistance of advertising corporations. It is of crucial importance that social marketing groups also employ advertising techniques through public service announcements (PSAs) to counteract the messages conveyed by alcohol advertisements. These pro-health campaigns, however, often face an uphill battle, since sporting and music events that attract large numbers of young adults are often sponsored by alcoholic-beverage companies (Andsager, Austin, & Pinkleton, 2001; Wagenaar, Toomey, & Lenk, 2004). The previous information has allowed this researcher to, thus, present the question of how has alcohol-related public service announcements (PSAs) have been effective in inciting a behavioral change among college-aged young adult consumers of alcohol?

Rationale

According to Andsager, Austin, and Pinkleton (2001), prosocial advertising, commonly referred to as PSAs, have made great strides in public health. The aim of many alcohol-related PSA campaigns has been to minimize or eliminate the consumption of alcohol by college-aged adults. Previous research indicates that marketing and advertising strategies are necessary if “student exposure to information about alcohol and methods of reducing risky behavior” is to be effective (Palmer, Kilmer, & Larimer, 2006).

This paper focuses on adults aged 18-24, and employs elements of the Elaboration Likelihood Model (Petty, Cacioppo, & Schumann, 1983) to assess the effectiveness of alcohol-related PSAs directed toward this age group. This group was selected because studies have shown that it is the one most likely to engage in excessive use of alcohol. Adults aged 18-24 have the
dubious honor of surpassing the 12-16 and the 26-50 + age groups in binge drinking and heavy drinking (Mitchell, 1999). Research indicates that “heavy drinking and related problems are pervasive among people in their early twenties regardless of whether they attend college” (NIAAA, 2006).

Research suggests that by influencing components such as “price, availability, and drinking context” (Holder, 2004), the opportunity for effective behavior guidance is possible. Though PSAs are the focus of this paper, it is not the goal of the researcher to denounce non-PSA strategies for behavioral change. Theory has suggested that media campaigns, in fact, are most effective when employing several strategies simultaneously (Holder, 2004). The researcher has isolated PSAs from other persuasive efforts in order to examine the impact of PSAs on this population.

**Literature Review**

Relying on results from studies conducted by Dawson et al. (2004), Johnston et al. (2005) and Wechsler et al. (2002), Martens, Ferrier, & Cimini (2006), state that 40-45% of college students engaged in “heavy episodic” drinking within a two-week period. *Heavy episodic drinking* is defined as “the consumption of five or more drinks in a row on at least one occasion within a typical two-week period” (Treise, Wolberg, & Otnes, 1999). The National Institute on Alcohol Abuse and Alcoholism (NIAAA) specifies the consumption amount as five or more drinks for males and four or more drinks for females. Such drinking increases an individual’s blood alcohol concentration (BAC), expressed as a percentage (National Institutes of Health).

In the Behavioral Risk Factor Surveillance System Survey of 2001, statistics revealed that binge drinking was the highest among the 18-24 year-old age group, reaching 48.3%, a 13% difference from the 25-34 year-old age group. Results from the National Survey on Drug Use and Health conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) reveal that young adults show the highest prevalence of “problem drinking” (Monti, Tevyaw & Borsari, 2004).

Not only is this group drinking excessively, but its drinking has been related to risky behavior. These risks include unplanned sexual activity and, for young adult students, a decline in academic performance (Treise, Wolburg, & Otnes, 1999; Wagenar, Toomey, & Lenk, 2004). The 1998 and 2001 National Household Survey on Drug Abuse of 18- to 24-year-olds revealed high occurrences of driving under the influence of alcohol (Hingson, Heeren, Winter, & Wechsler, 2005). This public health crisis among young adults is an issue Keller and Block (1997) deemed a “national priority.” Behavioral trends such as these reflect the desire of social marketing groups to influence young adults through PSAs, with a special emphasis on drunk-driving PSAs.
The Motivation behind Drinking
The pattern of alcohol over-consumption among college-aged adults is driven by numerous factors, including friends, stress, perceived drinking norms, emotional pain, and drinking behavior prior to entering college (if applicable). Research conducted by Chen, Paschall, & Grube (2006) demonstrated that the type of alcoholic beverage consumed can also play a crucial role in the decision to consume alcohol to excess.

The belief that alcohol abuse is a rite of passage is suggested by Crawford and Novak (2006). According to these researchers at Bradley University in Peoria, Illinois, and Treis, Wolburg, and Ottes at the University of Tennessee (1999), students believe heavy alcohol consumption is an essential element of the college experience.

The 2006 study conducted by Crawford and Novak confirm that young adults are driven by the belief of entitlement to not just consume alcoholic beverages, but to consume them to excess. In addition to this behavior being considered an entitlement, it enhances and fulfills the social element within the lives of young adults.

Extending the discussion of beliefs held by college-aged adults about drinking, a recent study conducted by Shim and Maggs (2005) offers various conclusions regarding motives behind young adult binge drinking behavior. Results from a survey and focus group discussion of 669 college student participants between the ages of 18 and 22 allowed the researchers to identify the following three beliefs that binge drinkers possess:

1. College students’ beliefs about alcohol consumption lean more towards the idea that alcohol consumption enhances their social interactions (Shim & Maggs, 2005) as “positive psychological consequences” and lean away from the idea of the belief that heavy alcohol consumption will affect their mental and physical health (negative psychological consequences).

2. A positive correlation was found between binge drinker’s beliefs about financial consequences and alcohol consumption, suggesting that students who practice binge drinking behavior view alcohol consumption as a “cost effective activity.”

3. Results from this study suggest that binge drinking young adults tend to be on the fence about the safety of binge drinking.

Unlike Crawford and Novak, Agostinelli and Grube (2002) suggest that a primary cause of alcohol over-consumption among young adults is alcohol advertisements: “It is especially important to counter the potential effects of advertising on young people because these age groups are more susceptible to those effects.” These advertisements, Agostinelli and Grube further suggest, shape young adults’ decisions to consume alcoholic beverages. Both Crawford and Novak’s and Agostinelli and Grube’s arguments are
well-formulated; however, this researcher has placed emphasis on the latter argument as the driving force behind the current discussion.

According to Ford (2006), professor of marketing and international business at Old Dominion University in Norfolk, Virginia, young adults are often the prey caught between competing alcohol marketers. Increasing competition within the alcohol market is a driving force behind targeting young adults. Responses from subjects from a private Midwestern university participating in a study conducted by Parker (1998) demonstrated the manner in which advertising companies use beverage names as an incentive to drink. In this study, the subjects recalled drinks they were exposed to such as “The Hammer,” “The Snakebite,” and “The Hand grenade,” all of which connote “danger, mystery, and intrigue” — concepts relating to risk that are especially appealing to young adults.

Social Marketing
Social marketing groups have attempted to counteract the efforts of alcohol advertisers, and to educate consumers about the risks of excessive alcohol consumption. Kotler, Roberto, and Lee (2002) define social marketing as “the use of marketing principles and techniques to influence a target audience to voluntarily accept, reject, modify, or abandon a behavior for the benefit of individuals, groups, or societies as a whole.” Whereas commercial-sector marketing sells products, social marketing “sells behavior change.”

In their book Handbook of Marketing and Society, Bloom and Gundlach (2001) state that social marketing is sometimes misunderstood as “an alternative to individual behavior change strategies”; however, they suggest that social marketing is rather the tool responsible for an increase in “specific behaviors among target audiences.” Gomberg, Schneider, and DeJong (2001) state that these campaigns “advance social causes,” specifically suggesting alcohol as one of the more important causes.

The Public Service Announcement (PSA)
PSAs are an important tool of social marketing and are essential to public health (Roznowski & Eckert, 2006; Andsager, Austin, & Pinkleton, 2001). Many of the messages supporting the responsible use of alcoholic beverages are the work of PSAs (Treise, Wolburg, & Ottes, 1999). This public health tool takes the form of radio and television announcements, billboards, Internet sources, and newspaper and magazine advertisements (Ad Council, 2006). The strategies used in PSAs can vary from emotional appeals to celebrity endorsements. According to Andsager, Austin, and Pinkleton (2001), studies conducted by Austin and Johnson (1997a, 1997b), Hafstead et al. (1996) and Monahan (1995) suggest that the most successful prosocial ads “portray models and target behavior as being desirable.”

PSAs are distinguished from commercial advertisements in several ways. First, although they do not rely completely on donations for ads, PSAs rely heavily on non-profit/donated funding (Murry, Stam, & Lastovicka, 1996).
Secondly, the organizations responsible for the production and distribution of PSAs can compete with commercial marketing advertisements in terms of the sources of funding are concerned, because of the funding they receive from news media outlets. Unlike commercial marketing advertisements, the news media do not charge for airing PSAs (Guth & Marsh, 2007). This factor, however, does not specifically suggest better placement, as will be discussed later in this paper. Third, unlike commercial advertisements, PSAs tend to promote societal gain over financial gain. Yet, PSAs and commercial ads share one common goal: “Both groups share the incentive to reach similar audiences viewing similar media vehicles” (Bernthal, Rose, & Kaufman, 2006). The idea of both social and commercial marketing groups sharing similar audiences is interesting and has often counted against social marketing groups due to the issue of placement for these groups. For the purpose of this research, placement refers to the space (timeslot/location) the ad will occupy.

**Behavioral Change**

Changing drinking behavior amongst college-aged adults is a significant undertaking of prosocial groups (Agostinelli & Grube, 2002). Young adults however, are less likely to be receptive to health-related behavioral changes than other age groups are (Lee & Bichard, 2006). Studies have shown that commercial advertisements bring about more of a behavioral change in young adults than do prosocial advertisements (Austin, Pinkleton, & Fujioka, 1999). In addition, methods used to change behavior may vary. Osterhus (1997) argued that behavior is “influenced by normative forces.” In addition, Osterhus asserts that both economic and social influences are key in producing a change in behavior.

The following discussion focuses on the theoretical frameworks devised to explain behavior and the factors that influence behavioral change. Because “dual-process theories have been most widely embraced” as models of persuasion (Meyers-Levy & Malaviya, 1999), this researcher has adopted the Elaboration Likelihood Model (Petty, Cacioppo, & Schumann, 1983) to view PSAs directed at college-aged consumers of alcohol. The researcher has also provided an explanation of a non-dual processing model, the Health Belief Model (Rosenstock, Strecher, & Becker, 1988), to expand on the discussion of persuasion and behavior change. This model is used widely by health promotion organizations.

**The Elaboration Likelihood Model (ELM)**

A theoretical framework commonly applied to both advertising and risk communication efforts is the *Elaboration Likelihood Model (ELM)* (Petty, Cacioppo, & Schumann, 1983; Rucker & Petty, 2006). As a dual-processing theory of persuasion, ELM provides an integrative framework to understand attitude change (Petty, Heesacker, & Hughes, 1997). Although this framework has been recognized as focusing on attitude change and
persuasion, Petty and Wegener (1999) suggest that it can be applied to any judgment.

As described in the work of Agostinelli and Grube (2002), the ELM offers two routes by which the targeted audience is persuaded by PSAs to alter attitudes and behaviors: the central and the peripheral routes. These routes differ in that the **central route** “views attitude change as resulting from a person’s diligent consideration of information that s/he feels is central to the true merits of a particular attitudinal position,” while the **peripheral route** is based on positive and negative cues of an advertisement as perceived by the audience (Petty, Cacioppo, & Schumann, 1983). The central route of persuasion relies heavily on the receiver’s determination of the pros and cons of a message. In this instance, the audience views the information that they receive as “central to the true merits or a particular attitudinal position.” These two routes are dependent upon the motivation of the recipient to process the messages being sent as well as the ability of the recipient to process the message (Henningsen, 2003). Rucker and Petty (2006) suggest that an audience’s lack of motivation means that it will be persuaded through peripheral cues. These two routes of persuasion differ in terms of the effect they have on the receiver of the message presented. The central route of persuasion results in a lengthy, possibly permanent, attitudinal change, whereas the peripheral route of persuasion tends to bring about a short-term attitudinal change. For this reason, the central route of persuasion is often the preferred route.

In addition to motivation and knowledge, research conducted by Petty, Wells, and Brock (1996) suggests that “message repetitions” and “the amount of distraction in the environment” also play a role in shaping an individual’s perception of a message (Rucker & Petty, 2006). Petty, Cacioppo, and Schumann (1983) note that the relevance of a message to an audience and the involvement of the audience are significant variables that contribute to the effectiveness of a message. The ELM looks specifically at general media messages, however, for the purpose of the present study, this researcher will apply this model to PSAs.

**The Health Belief Model (HBM)**

The second model this researcher examined was the Health Belief Model (Rosenstock, Strecher, & Becker, 1988). Similar to the ELM, this model is a predictor of behavior, with a specific emphasis on health behavior. The HBM (Rosenstock, Strecher, & Becker, 1988) is used to “determine the likelihood of performing preventative health practices” (Ah, Ebert, Ngamvitroj, Park, & Kang, 2004). Bloom and Gundlach (2001) recognize HBM as a theory used widely across the span of public health designers. This model follows four characteristics: susceptibility, severity, benefits, and barriers. *Perceived susceptibility* represents how likely someone perceives the likelihood of something happening to them. *Perceived severity* examines the seriousness of a situation and the consequences that one perceives the
situation to have. Perceived benefits, naturally, represent the advantages that will come about if the individual takes a certain action. Finally, the perceived barrier element examines what the costs are of taking a certain health-related action. Of related importance to the HBM model is the concept of self-efficacy. Self-efficacy is the suggestion that an individual is fully capable of recognizing that they have the ability to change (Bloom & Gundlach, 2001). A study conducted by Ah et al. (2004), suggests that those who seek a change in health practices are heavily influenced by the severity of perceived threat.

Risk
As stated previously, young adults tend to dedicate little time to considering their own mortality. Similarly, risk in general has proven to be of little concern to college-aged adults. Treise, Wolburg, and Ottes (1999) discovered from reports conducted by The Institute for Health Policy (1993), that “18-to 25-year-olds are the least likely of any age group to believe that heavy alcohol use is risky.”

Excessive alcohol consumption among this age group has been linked to unplanned sexual activity, cognitive impairment, and a decline in academic performance (Treise, Wolburg, & Ottes, 1999; Wagenar, Toomey, & Lenk, 2004; Gomberg, Schneider & DeJong, 2001). However, the behavior that has garnered the most attention is drunk driving. The 1998 and 2001 National Household Survey on Drug Abuse, which queried 18- to 24-year-olds, revealed high occurrences of driving under the influence of alcohol (Hingson, Heeren, Winter, & Wechsler, 2005). Social marketing groups have focused their PSAs on attempting to persuade young adults to drink responsibly and refraining from driving after consuming alcohol, as well as to opt for abstaining from alcohol.

Social Norms
A well-known marketing instrument/concept under the umbrella of social marketing and utilized heavily by college campuses nationwide is that of social norms marketing. This marketing tool is unique in that it attempts to alter behavior by reconstructing one’s perception of the normal practices of social situations (Bernthal, Rose, & Kaufman, 2006). Researchers have had their share of success with this marketing technique. In a study conducted by Gomberg, Schneider, & DeJong (2001) in which undergraduates at the University of Mississippi were exposed to a campaign entitled Just The Facts (JTF), researchers found that the “campaign also coincided with a decrease in...self-reported alcohol consumption” by modifying the manner in which students viewed social norms. The researchers were not completely convinced, however, that the JTF campaign was the sole factor in predicting a change in their drinking behavior. What may have been significant in this study and what the researchers listed as their limitation was that there were no direct questions asking participants if they recalled seeing the ad. The researchers made the argument that the change in alcohol-related behavior of the young adult participants may not have been a direct result of the
campaigning; however, there were no suggestions made as to what may have stirred this change. Therefore, this study leaves us with little understanding of the actual factors that may be attributed to this behavioral change. Still, the social norms approach is extremely significant to the social marketing industry considering how often college-aged adults tend to underestimate the drinking norms of their peers.

**Methodology**

This researcher collected more than 25 articles from the Educational Resources Information Center (ERIC). The articles were limited to the English language. Several books obtained from the California State University Public Library also were used to conduct this research, including textbooks and general informational texts.

The researcher also utilized statistical data from the American College Health Association (ACHA) and the National College Health Assessment (NCHA). Finally, the methodological process consisted of analyses of two theoretical frameworks: The Elaboration Likelihood Model of Persuasion and Health Belief Model.

**Results**

In analyzing PSAs as a mass medium, the idea of paid and non-paid advertising are significant factors. Researchers have reached a common consensus regarding this idea: “…well-funded campaigns can afford to buy prime media time” (Randolph & Viswanath, 2004; Murry, Stam, & Lastovicka, 1996). However, the inquiry at hand is not in regards to the amount of funds that campaign planners can put towards a project, but whether well-funded campaigns differ from average-funded campaigns in effectiveness. The response to this question has been ‘yes’ for several researchers. The poor production quality of PSAs, which is directly related to funding, has been noted as a possible obstacle for reaching young adults. Andsager, Austin, & Pinkleton (2001) suggest that “if more funds are allocated to increase the production value of PSAs… the characteristics of persuasive messages themselves will be more important.”

A primary suggestion of Bernthal, Rose, and Kaufman (2006) is that enhancing the production value of PSAs would position them to compete more effectively with commercial marketing. This suggestion is based on the fact that PSAs share similar audiences with commercial marketing groups; therefore, they are often forced to target the same environments in which college-aged young adults tend to congregate (Bernthal et al., 2006). For that reason, social marketing groups must enhance the production quality of their PSAs in order to ensure an effective ad.

In contrast, a study conducted by Murry, Stam, and Lastovicka (1996), that collected survey responses from an 18- to 24-year-old male audience exposed
to a series of drunk-driving PSAs suggested that funding is not crucial to PSA effectiveness. According to the researchers, “the pre- to post-survey-based measures of young male self-reported drinking behavior showed no statistically significant differences between the paid and donated media site.” It is further suggested by these researchers that drunk-driving PSAs can be effective in reaching a young adult population regardless of the amount of funds supporting the ad.

Timing
PSAs are often hindered by the times in which their ads can be aired or displayed. Relying on work done by Hatch (2001), Roznowski and Eckert (2006) reveal that “43% of all donated PSA time is between midnight and 6 a.m.” — a time frame in which few viewers are exposed to this information. Although 9% of these advertisements are presented to viewers between the 8-11 p.m. time frame, which offers more viewers and potential target audiences, this 34% difference suggests that only a minute audience—and not the targeted audience—is being reached.

Audience Interest
A third struggle for PSAs targeting young adults has been the audience’s lack of interest in the message presented. Andsager, Austin, and Pinkleton (2001) note in the work of Grube (1993) and that of Grube and Wallack (1994) that negative responses to prosocial alcohol advertisements were reported. Specifically, terms such as “boring” represented the common response of the young-adult targeted audiences, suggesting that the message was not communicated effectively. In the media world in which these two groups cohabitate, competition is inevitable. Although the products/services being marketed by these groups differ, their target audiences remain consistent. This consistency develops into a struggle between the two entities to persuade young adult audiences to take on the suggested behavior by each group. Often the appeals of commercial advertisements overpower the messages of alcohol-related PSAs, which says a lot for the factor of competition between the groups. The lack of interest in the message from this audience coupled with their minimal consideration of risk and their mortality demonstrates a definite struggle of PSA developers in reaching targeted audiences.

Favorable Qualities of PSA Messages
Relying on research conducted by DeJong and Atkin (1995), Treise, Wolburg, and Otnes (1999) noted that communicating effective messages to young people in their teens and twenties is a complex task. The information presented below focuses on the criteria that appear to be significant in appealing to young adult audiences.

Realism
A study conducted by Andsager, Austin, and Pinkleton (2001) suggests that college-aged adults respond to portrayals of behavior they desire to adopt.
The researchers additionally found that the degree to which young adults can be persuaded is dependent upon perceived realism. In referring to realism, the researcher defines the term as how realistic an ad is and appears to be to an audience. For example, Andsager, Austin, and Pinkleton (2001) compared young adult responses to commercial ads and PSAs. The researchers concluded that young adults are aware of how commercial ads tend to step outside the boundaries of reality and appeal to fantasy worlds in order to grasp the attention of audiences. For example, a commercial ad viewed by the group displayed dogs ruling humans with beer. The participants recognized the level of exaggeration that commercial ads tend to display and acknowledged that PSAs present more components within the ads that are more likely to occur in the real world.

Austin, Pinkleton, and Fujioka (1999) similarly found realism to be a significant appeal of alcohol-related PSAs. The majority of the 246 college students surveyed in their study rated realism as one of the more important criteria.

Responses from a 2001 study comparing commercial ads and PSAs revealed that, although young adults perceived a quality of realism in the PSAs, the commercial alcohol ads were “more enjoyable than PSAs” (Andsager, Austin, & Pinkleton, 2001). Observations from participants offering this response included one that the people within the commercial ads were “better looking” and the ads looked “more expensive”. In taking an approaching based upon the Elaborated Likelihood Model and applying it to this study, the young adults in this study sought peripheral influences from the PSAs as they recognized within the commercial advertisements. The researchers, additionally, did not recognize an attitude or behavior change within the participants.

**Threat**

*Threat* is defined as “an expression of intention to inflict evil, injury, or damage” (Merriam Webster Online, 2007). The presence of threat within PSAs is a suggested appeal in targeting young adult audiences. In a study conducted by Outwin (1987), 143 students, ranging in age from 18-24 years attending a large college in northeastern Massachusetts, participated in a study in which anti-drunk driving PSAs were viewed. Results suggested that the threat appeal was an effective technique. Outwin (1987) concluded that little to no threat was ineffective; and that moderate threat proved to be the most effective predictor of motivational, attitudinal, and cognitive responses of young adult audiences.

As has been previously suggested by the Elaboration Likelihood Model (Petty, Cacioppo, & Schumann, 1983), cognitive effort and motivation are both contributors to the processing of a message through the central route of persuasion. It has been suggested also that if the young adults within this study experienced high elaboration (cognitive effort) as well as motivation, they would seek behavior change through the central route. In using the term
elaboration, the researcher is referring to how much an audience thinks about a message. High elaboration refers to excessive thinking of a specific message being presented, whereas low elaboration refers to very minimal thoughts in regards to the message being presented. This factor suggests that threats, especially moderate threats, are one of the best appeals used for influencing young adults. DeJong and Atkin (1995) also propose that prosocial advertising should, in attempting to reach young adult audiences, present threat as an appeal. They suggest that “social consequences” of the decision to drink and drive are more appropriate than “life-threatening consequences.” For example, a social consequence for a young adult may be embarrassing yourself in a bar because you decide to sing karaoke while drunk, as was represented in a radio ad the researcher viewed entitled “Gobbledy Gook.”

Social consequences such as these present the possibility of not being socially accepted by your peers. According to Wolburg (2001), rejection by their peers is often a risk that college-aged adults are often not willing to take. In fact, this group prefers risky drinking over the risk of social rejection. An example of life-threatening consequence is the suggestion that a death may occur as a result of drunk driving.

In dealing with the use of threat in PSAs, a Lee and Bichard (2006) study suggests that the threat presented may invoke rebellion among young adult audiences. Their study notes that rebellious college students tend to be more sensitive to threatening messages. Lee and Bichard suggest that messages “be careful not to trigger rebellious college students’ defense mechanism.” An example of an ideal message for prosocial groups is provided by the researchers. These researchers suggest that messages focusing on threat to a significant other rather than directly to the rebellious students is an effective technique.

Fear

Fear has been recognized as one of the most common health communication strategies and the “most common tactic for PSAs” (Treise, Wolburg, & Otnes, 1999; Slater, 1999; Hastings, Stead, & Webb, 2004). Fear appeals tie in closely with threat appeals. Relying on research conducted by Donovan and Henley and LaTour and Rotfeld both from 1997, Hastings, Stead, and Webb (2004) identified threat as the stimulus and fear as the response. In using the term stimulus, the researchers suggest that threat is the agent responsible for inciting fear. Fear, thus, is the response that audiences have towards the moderation of threat presented in an advertisement. The authors’ overall argument is that marketers should be wary of fear messages because of the many questions that are still in need of answers. For example, they suggest that fear messages must be tested in environments outside of the laboratory setting, which would allow for a more natural response from audiences. In their multi-argument article Fear Appeals in Marketing: Strategic and Ethical Reasons For Cancer, Hastings et al. presents concerns such as the measurement of effectiveness of long-term studies, fear as forcing an audience to change...
behavior, and responses from the audience that counterargue the message presented, or what the authors describe as “maladaptive responses.”

The effectiveness of instilling fear in young adults has been vigorously debated. It has been suggested that young adults tend to spend little time contemplating their mortality, and as such, PSAs that tie a fear of death to drunk drinking do not tend to resonate well with young adults (Keller & Block, 1996; Hastings, Stead, & Webb, 2004).

Keller and Block (1996) examined fear appeals in relation to the level of fear and elaboration of the audience, or the effort that an audience puts forth to process a message. Despite the concerns regarding fear appeals; however, these researchers suggested that the level of fear shares a positive relationship with the ability of the audience to elaborate on a given message. In a study of 97 college students at a large eastern university, researchers analyzed the relationship they believed to exist between levels of fear and message effectiveness. They concluded that low fear appeals with the absence of other types of intervention, such as a self-reference, in which a message is intended to help the individual versus references to others at risk, tend to be unsuccessful in bringing about the desired behavioral change. They further suggested a positive relationship between the level of fear arousal and the preference to elaborate. In contrast, high fear appeal tends to navigate the audience to elaborate on the problem and not on a solution. Therefore, Keller and Block (1996) suggest that an “intervention” is necessary in order for the audience to analyze the message from a solution-driven perspective, which would open them to a change in behavior. The researchers place an emphasis on an intervention in the message being presented regardless of whether the appeal is a low or high appeal. This factor suggests an explanation in the difference in results of fear appeal effectiveness from study to study. Table 1 shows a representation of the relationship(s) between fear appeals and message elaboration as suggested by Keller and Block.

The discussion of elaboration ties in directly to the Elaborated Likelihood Model framework in that it depends on motivation and processing as a means of effectively receiving a message. The findings of studies on fear vary greatly, and a plethora of researchers have agreed that more studies are needed beneficial in order to conclude the effectiveness of this appeal (Andsager, Austin, & Pinkleton, 2001, Hastings, Stead, & Webb, 2004, Keller & Block 1996).

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<th>Fear Level</th>
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<tr>
<td>Low</td>
<td>No</td>
<td>Little Motivation to Elaborate</td>
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<td>Low</td>
<td>Yes</td>
<td>Elaboration of message problem and message solution</td>
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<td>High</td>
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<td>Elaboration of Problem</td>
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Sexual Appeals in PSAs
We have all heard it: sex sells. Sexual appeals are commonly used in commercial advertising for selling products and services. These appeals are known to be presented through verbal communication, images, or even both in some cases (Reichert, Heckler & Jackson, 2001). Sexual appeals however, are not limited strictly to the commercial ad industry. These appeals have been known to be featured in PSAs (Reichert, Heckler, & Jackson, 2001). The question of why or how such an appeal is used in a prosocial health-related marketing industry, such as preventative alcohol-related advertisements, is one deserving attention. A response to this curiosity has been taken on by researchers Reichert, Heckler, and Jackson (2001). In a 1987 study reviewed by the aforementioned researchers, Belch, Belch and Villarreal (1987) suggest that components of sexual appeals tend to be useful because they grasp the attention of the audience, are arousing, and are memorable. In this study, designed to examine the effectiveness of sexual appeals in PSAs, Reichert, Heckler, and Jackson (2001) developed conclusions after conducting a content analysis and reviewing surveys completed by undergraduate business, communications, and journalism students. This study confirmed that persuasion using sexual appeal messages exist beyond that of commercial marketing content. The researches concluded that PSAs containing sexual appeals can be processed without distraction from the primary message being relayed in the ad. However, the processing of these messages by the college-aged adults was more likely to be processed through the peripheral route, which, according to the Elaboration Likelihood Model, would allow for minimal elaboration of the actual message. The researchers also found a negative correlation between sexual appeals and the effect on how the young adults elaborated on the content of the message. Reichert, Heckler, and Jackson (2001) note the use of alcohol-related PSAs by Mothers Against Drunk Driving (MADD) organization being displayed in public restrooms and bars, specifically the ad of an attractive woman. Although the researchers did not recognize the success rates of sexual ads such as these, the idea that they are used for purposes other than sexually-related purposes suggests that new ideas are being created to incite a change. This finding opens the door for future studies to examine the reaction(s) and potential behavior change of young adult audiences in relation to sexually-driven PSAs.

The Role of the Source
As previously mentioned, the Elaborated Likelihood Model is constructed of two routes of persuasion: the central and peripheral. When an individual is influenced through the peripheral route, the source of the message plays a significant role in the target’s decision to alter or not alter his or her behavior. DeJong and Atkin (1995) confirm the heavy presence of celebrity-endorsed advertisements. Slater (1999), citing the work of Alperstein (1991) and Basil (1996), suggested that, generally speaking, advertisements using the presence of celebrities induce behavior change; however, the celebrity must be matched to the audience in order for the message to be effectively received.
In short, young adults will comfortably receive a presenter with whom they can relate (Slater, 1999). For example, young adults persuaded through the peripheral route of persuasion of the ELM are more likely to be persuaded by credible sources, such as their peers, or celebrity sources such as music entertainers or sports figures.

**DISCUSSION**

As stated previously within the paper, it was the intent of the researcher to analyze what has been considered to be the most effective means for discouraging the over-consumption of alcohol amongst college-aged young adult audiences. The information resulting from the review of literature has provided several pathways for discussion.

It is imperative to acknowledge the minimal contemplation that young adults tend to have regarding risk. Behavior such as binge drinking does in fact have its consequences however, societal norms on college campuses and other environments in which young adults congregate suggest otherwise. Certain drinking behaviors become normalized within these groups. Following the structure of the Health Belief Model (Rosenstock, Strecher, & Becker, 1988), effective alcohol-related PSAs may entice young adults to question the seriousness of the situation; weigh the consequences of drinking responsibly and not drinking responsibly; examine the likelihood of actually taking this action: “is this action realistic?” and if so, “can it change my behavior?” Recalling that realism within PSAs tend to resonate well with college-aged young adult audiences makes this appeal significant (Andsager, Austin, & Pinkleton, 2001).

Addressing the struggle of audience interest may require PSA developers to demonstrate how young adults may benefit from choosing not to binge drink or drink to excess. Ultimately, the confidence one has in his or her ability to take on a certain health-related action can determine his or her potential to make the decision. Making the consequences of risky drinking behavior fully noticeable may affect such self-efficacy. The presence of threat within PSAs then becomes important, specifically moderate threat approaches. Threat however, would be incomplete without its counterpart, fear, which can ultimately be responsible for bringing the audience to elaborate on the message presented.

Andsager et al. (2001) concluded that some alcohol-related PSAs are not “meeting college-aged audience’s needs for personal relevance.” Personal relevance is important in a world of multiple audiences. It is a necessity for college-aged young adults to be aware of actual drinking norms instead of the drinking behaviors they perceive to be customary. Enhancing the personal relevance of alcohol-related PSA messages for young adult audiences may be dependent upon using relevant icons, such as peers or young entertainers whom young adults can relate to. Yet, caution must be taken when using the peripheral route as a means of persuasion. If a
temporary behavior change is the ultimate achievement, this route may be appropriate; otherwise, taking a central approach may be more appropriate in the case of altering drinking behavior among this population, which offers a greater opportunity for a long-lasting or permanent change in behavior.

LIMITATIONS
There were three major limitations to this study. First, the limited time span prohibited the researcher from conducting a more concentrated review of literature. Secondly, the absence of human subjects did not allow the researcher to gather data that either supported or countered the use of PSAs. Thus, the researcher depended on statistical evidence and data from secondary sources. The researcher came across many articles representative of alcohol prevention in relation to PSA efforts, many of which specifically target youth and adolescents instead of the young adult age group the researcher sought to review. This factor limited the number of case studies that the researcher reviewed.

CONCLUSION
The use of persuasion in both the pro social marketing and commercial marketing industries is without a doubt vitally important to these industries. Behavior change, as confirmed by the studies discussed in this paper, is far from a simple task. Prosocial marketing groups still face a challenge as they attempt to reach the most at-risk, alcohol-consuming audience: college-aged adults. The researcher has examined alcohol-related PSAs, a driving force in the prosocial marketing industry.

Behavior change models such as the Elaboration Likelihood Model (Petty, Cacioppo, & Schumann, 1983) and the Health Belief Model (Rosenstock, Strecher, & Becker, 1988) are two of the many persuasion theories available for discussion of PSAs. Relying on the concepts of central processing, peripheral processing, and threat to health, these models fall comfortably in place with alcohol-related PSAs. The researcher’s findings regarding the relationship between the ELM and the appeals of threat and fear suggest a significant relationship between these appeals and the central route of persuasion.

Few studies have investigated binge drinking in this specific audience. It is suggested by the researcher that more studies be conducted on this age group. Future researchers can analyze the specific behavior changes that take place among college-aged adults, focusing on variables that determine whether the changes are immediate, short-term, or long-term.

Future studies investigating this issue can also analyze the effects of alcohol-related PSAs in relation to the behavior change amongst young adult male and female consumers. It has been suggested that males have higher rates of binge-drinking than women. Therefore, a study investigating and comparing
the affect of prosocial advertisements on these two groups is suggested. Similarly, it has also been suggested that young adult black populations tend to binge drink less than young adult white populations do. How do alcohol-related PSAs affect these two groups? Are they more effective in inciting a behavioral change with one group more than another? A future study could provide responses for these questions.

Finally, future studies may benefit from reviewing the use of sexual appeals in PSAs targeted toward young adult consumers of alcohol. Few studies currently exist in this area of study. Therefore, future research focusing on this subject matter may escort PSA developers down a road that has been tread by few alcohol-prevention marketers.
REFERENCES


Sacramento State


Osterhus, L. T. (1997) Pro-social consumer influence strategies: When and


