

What Kinds of Message Frames Influence Sailors to Intervene to Prevent Sexual Assault?

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Abstract

Sexual assault has serious detrimental effects on individuals, families, and organizations. Intervention by bystanders can prevent assaults, thereby saving all parties from painful consequences. This article outlines research on strategies for presenting information about bystander intervention to Navy personnel. Results identified themes that resonate with members of various Navy communities, as well as differences among demographic groups.

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Sexual assaults may be prevented through effective interventions by people who are neither victims nor perpetrators. Sadly, bystanders often do not recognize the need for intervention (Bickman, Teger, Gabriele, McLaughlin, Berger, and Sunaday, 1973), or having recognized the need, they may not choose to take action (Latane and Darley, 1970). To foster bystander interventions, then, educational programs must enable people to recognize danger signals, convince them that intervention is appropriate, and motivate them to take personal responsibility. To do this, information and training must align with audience values and make sense in the audience's social environment. Acknowledging differences in beliefs, values, and identities that draw people into various organizations, we limited this study to enlisted military personnel. Our goal was to understand social and psychological processes and messaging strategies that influence military persons to intervene, or not, when they observe events that could lead to sexual assault. We expected that some relevant values would pervade the military population, while beliefs, values, and identities within specific communities and demographic cohorts could drive significant differences with regard to fostering bystander intervention.

In the next section, we outline social and psychological factors that contribute to bystander intervention, we explain our model of military bystander intervention, and we outline communication principles that can influence responses to information. We then share U.S. Navy members' reactions to various strategies for conveying bystander intervention messages, along with insights from focus group discussions. Finally, we draw practical implications to increase the effectiveness of bystander intervention information and education in military populations.

CONCEPTUAL BACKGROUND

Definitions of sexual assault vary, signs of impending sexual assault may be subtle, and social norms may not support intervention. Many universities, public health departments, and

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military organizations have launched sexual assault prevention training to clarify definitions of sexual assault, establish that it is unacceptable, and motivate people to intervene. While some university programs report that students' attitudes seem to change or at least that some students remember the training a few weeks later, there has not been a significant reduction in sexual assaults following the upswing in training. Clearly, we need better understanding of the thought processes that undergird target audiences' responses to information about sexual assault and their willingness to intervene if faced with a potentially dangerous situation. What causes people to recognize that someone is at risk for sexual assault? Which values make people more likely to conclude that they should intervene? How can bystander intervention information be framed to capture target audiences' attention and motivate them to take action?

Latane and Darley's original (1970) model of bystander intervention outlined a necessary sequence of cognitive stages that precede helping behavior in an emergency. These included noticing and interpreting the event as an emergency, accepting responsibility to help, choosing an appropriate action, and then implementing the plan. Several researchers have expanded or refined the model. Adapting this stream of research to the problem of sexual assault, we propose that intervention depends on noticing danger signals and recognizing that intervention is needed, realizing that we are personally responsible to help, and then deciding to act. Each cognitive step builds on prior understanding, and all of these steps are necessary precursors to intervention. Knowledge regarding what to do then impacts the effectiveness of the intervention (see Figure 1). Achieving these understandings with regard to sexual assault may be harder than with traffic accidents, street crimes, or natural disasters that are clearly observable and universally recognizable as dangerous situations. Even after the possibility of sexual assault has been

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recognized, social commitments and responsibilities may be unclear, and making the decision to act may rest on a complex set of personal values, social norms, and risk assessments.

Noticing and Recognizing Danger Signals

Dramatic events, in which a victim's distress is clear, lead bystanders to recognize an emergency and take action. For example, people who scream "receive help 75 to 100 percent of the time" (Schroeder, Penner, Dovidio, and Piliavin, 1995, page 31). The necessary intensity of the distress signal, however, may vary because people who are receiving many concurrent signals from their environment are less likely to notice needs of others around them. Students living in crowded dormitories were not as likely to return a lost letter as were students whose living arrangements were less dense (Bickman et al, 1973). A key point from the substantial research regarding recognition of others' need is that the signal must stand out from the surrounding noise, and it must be understood as an indicator that assistance is required.

With regard to sexual assault, general knowledge about prevalence of assaults and about conditions that enable assaults are necessary pre-conditions for recognizing danger signals. Recent statistics indicate that both men and women are targeted for sexual assault, and that both men and women may be perpetrators. Under similar conditions of coercion, drugs, or physical force, that lead to unwanted sexual contact, female victims are said to have been "raped" given physical penetration, while male victims are said to have been "made to penetrate" or to have been "raped," depending on the circumstances. In 2010, 1.1% of U.S. women reported being raped, and 5.6% reported other sexual violence during the prior twelve months. During the same 12-month time period, 1.1% of U.S. men reported being "made to penetrate," with a total of 5.3% reporting any kind of sexual violence during the prior twelve months (Centers for Disease Control, 2011).

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While the incidence of assault is higher against women than against men, and the number of assaults by male perpetrators exceeds the number by female perpetrators, members of both sexes can be targets or perpetrators of sexual assault. The vast majority of messaging that we have seen focuses on female targets and male perpetrators, potentially creating indifference toward male targets or female perpetrators.

Social Information about Whether or Not the Situation Requires Help

When we are alone, we interpret the information we receive as best we can, trying to make sense of conflicting or unclear signals. When we are with other people, we often use social cues to make sense of the information we receive, especially if the signals are unclear. In general, single bystanders are more likely to help than members of a bystander group (Latane, Nida, and Wilson, 1981), but this effect is contingent on the reactions of others in the group and on the clarity of the distress signals (Schroeder, et al, 1995). We can reasonably assume that social norms and expectations impact assessments of another person's vulnerability to sexual assault. These norms and expectations are likely to vary by gender, age, and military community, so messages that intend to raise awareness of the need for intervention should be tailored to each audience.

Realizing the Responsibility to Help

After recognizing that the situation does merit intervention, possible helpers must then understand that the responsibility belongs to them. Smaller social environments foster more helpful behavior. For example, people in rural environments are more likely to provide assistance when asked than are people in urban environments (Stebly, 1987). The solo bystander has little opportunity to shift the responsibility to someone else, and so he or she is particularly likely to recognize personal responsibility to intervene.

Diffusion of responsibility in groups can lead individuals to refrain from necessary action. This occurs across a variety of circumstances, and it is likely to affect bystander intervention to prevent sexual violence. Because others are present to intervene, individuals may not assume personal responsibility to act (Otten, Penner, and Waugh, 1988). In contrast, people who hold positions of leadership in a group are more likely to intervene (Baumeister, Chesner, Sanders, and Tice, 1988), probably because their positions connote responsibility to act on behalf of the group. This suggests that social norms can create responsibility-taking, even in a crowd, so bystander intervention messages may be more effective if they build a social demand for each person to take responsibility.

Deciding to Intervene After the Need and Responsibility Have Been Recognized

A bystander who has recognized a need for help and realized that he or she has some responsibility to intervene now faces the choice about whether to act on that responsibility, and how. Individual differences and personal values may predispose some people to help, while others are predisposed to reject responsibility. Ongoing research has identified both behavioral (Simpson and Willer, 2008) and neurological (Emonds, Declerck, Boone, Vandervliet, and Parizel, 2011) evidence of variance in individuals' tendencies toward altruism. While persuasive messaging may not be able to alter a person's dispositional level of altruism, it may increase prosocial behavior by appealing to existing values or relationships that the audience finds motivating. Emonds et al. (2011) explain that in social dilemmas, people who are naturally prosocial tend to want to cooperate, but expectations of personal gain are necessary to motivate cooperation by people who are naturally pro-self. Communications that are intended to trigger responsibility-taking to prevent sexual assault, then, are likely to be more successful if they resonate with personal values and identities that are motivating to the specific audience. This

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requires identifying the values and motives that are particularly meaningful to members of a target audience and tailoring the presentation of information to resonate with them.

Communicating Effectively

Following well-established research on building persuasive communications (e.g., Conger, 1998), information that is framed in terms of audience values is most likely to impact beliefs and attitudes. Message frames can be defined as the language and visuals, strategically chosen, that tap into people's beliefs, values, and moral structures to make a message more memorable and influential. By identifying values that align with bystander intervention, we can develop effective strategies for motivating action. We began the study with the assumption that some values must be shared throughout the Navy population, but that the values of individual communities could be equally or more important for development of persuasive communications. As a result of community-level selection and socialization, the identities, values, and preferences that are shared in particular military communities may impact members' responses to different ways of presenting sexual assault prevention information. Before launching an information campaign, we must understand what communication strategies impact perceived responsibility to intervene to prevent sexual assault. Both personal values and social norms may impact individuals' responsibility-taking and motivation to intervene. Variation by gender, age, and military community should be expected because of socially constructed beliefs about leadership, responsibility, and perceived costs or benefits of intervening.

Overarching Characteristics of Effective Message Frames

Although field testing frames is the best way to determine their effectiveness, criteria exist to help people create effective frames and to initially judge if they could meet communication goals. One important factor that makes achieving communication goals

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challenging is that each message must compete for audience attention with a large number of organizational and personal messages sent over a wide range of media—e-mail, electronic documents, text messages, social media, web pages, and face to face. This information glut makes strategic message framing even more important. Listed below are the key criteria to frame messages effectively (Heath & Heath, 2007):

- A simple, focused, narrowly defined goal for the message
- Language targeted to the Navy and its specific values, beliefs, and concerns
- Language concrete enough to trigger desired reactions in the target audience
- Language that links to a familiar, coherent Navy or community-defined story line—the Navy is a family, everyone is a sister or brother who should protect each other, etc.
- Language that evokes emotion
- Metaphors that are unexpected

We used these criteria—simple message goal, concrete language targeted to the Navy community, language evoking emotion, and links to important Navy story lines—to create sample framing devices to test with Navy audiences.

Hypotheses and Approach

The primary goals of this research were to understand how young military people relate their values to sexual assault prevention, and to discern the extent of variation in this linkage across age, sex, and community cohorts. The practical intent was to identify effective strategies to inform young military people that sexual assault occurs and causes harm in their social environments, convince them that bystanders can and should intervene to prevent sexual assault, and encourage them to take personal responsibility to help when necessary.

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Because military service in the United States is voluntary, a person who enlists can choose to join a particular military community, such as aviation, surface warfare, or medical services. Each of these communities offers distinct identities to members, and they may draw like-minded people and instill additional shared values. Each of these communities provides distinct services and employs people with specialized talents. The tasks, culture, and values of each community tend to align with their specialties. For example, the Supply Corps handles most of the purchasing and provisioning for the Navy, and the people who work in that community tend to be practical and business-minded. In contrast, the Special Operations community trains long and hard for dangerous, often classified tasks that require physical strength and endurance, and the people in that community tend to value team work and persistence. The Special Operations community included very few women at the time of this study. Because of fundamental distinctions in work focus, culture, and values, we anticipated differences in viewpoints from the five communities, in addition to expected gender and age effects.

We tested the following hypotheses about demographics and framing effectiveness:

Hypothesis 1. Different framing strategies for sexual assault prevention information have significantly different levels of impact on the audience's motivation to intervene, such that some strategies for framing bystander intervention messages will be significantly more effective than others.

Hypothesis 2. Effectiveness of a framing strategy is influenced by sex of the person receiving the message, such that some framing strategies will be more effective for men and others will be more effective for women.

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Hypothesis 3. Effectiveness of a framing strategy is influenced by membership in a particular (military) community, such that some framing strategies will differ in effectiveness among communities.

Hypothesis 4. Effectiveness of a framing strategy is influenced by age cohort, such that some framing strategies will differ in effectiveness between young sailors (24 years and under) and older sailors.

In addition to anticipated effects of audience demographics, we expected to find a bias in responsiveness to intervention messages based on the sex of the potential victim. This follows from the overall tendency of American media and existing sexual assault prevention training programs to focus on female victims. Prior Navy training about sexual harassment and sexual assault had focused almost exclusively on female victims, despite statistics showing that more men than women are assaulted in the Navy (because there are more male members). We expected the general image of male toughness and chivalry among military personnel to further this bias toward sympathizing more with female targets of assault and being more willing to intervene on behalf of a woman than on behalf of a man.

Hypothesis 5. Navy personnel are more motivated to intervene if the potential target of assault is a woman than if the potential target is a man.

To test our hypotheses, we developed a set of messages using distinct framing approaches to increase (a) recognition that sexual assault is a serious concern that merits intervention, (b) realization by the target audience that they are personally responsible to help, and (c) motivation to act. We met with small groups of U.S. Navy enlisted personnel, asking each person first to individually assess each of the possible framing approaches and then to share their reactions, reasoning, and additional thoughts with the group.

METHODS

The study combined qualitative and quantitative methods, including individual, numeric assessment of strategies for communicating about sexual assault prevention followed by group discussion of relevant beliefs, values, prior training, personal experiences, and opinions.

Development of Message Frames

A pilot study was conducted to obtain feedback and suggestions about possible strategies, along with insights about the culture and values among enlisted Navy personnel. We assembled message-framing strategies from existing programs in universities, military organizations, and public health departments, and from slogans and values that had been promoted by the U.S. Navy or other governmental organizations. In addition, we brainstormed messaging approaches based on our experience teaching military personnel. Eleven Navy volunteers assessed this initial collection, providing feedback and suggesting additional approaches based on their prior participation in sexual-assault prevention training. Two of the volunteers had worked on sexual assault prevention campaigns among Navy personnel, so they were able to share lessons learned through that experience.

From this pilot work, we developed a set of 30 short statements, each representing a different approach to convey information about sexual assault and/or to encourage bystander intervention. Some of the statements shared common underlying themes, such as family or Navy values or colorful imagery, and a few included male or female references.

Participants

Participants were active-duty, enlisted members of the U.S. Navy. Eleven volunteers, including seven men and four women, provided feedback on our initial set of communication strategies. They were not included in the subsequent focus groups. Four focus groups were held

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in each of the five communities, including 18-24 year old men, 18-24 year old women, 25-32 year old men, and 25-32 year old women. Two people outside that range (one 34 and one 35 years old) volunteered and were accepted in the men's group from the Supply Corps community. Group sizes and demographics of participants from each community appear in Table 1. Overall, 111 people assessed the 30 communication strategies and participated in the focus group meetings.

Insert Table 1 about here, please

Measures

Thirty message frames were tested, each on a separate half-sheet of paper. Four questions, intended to measure distinct aspects of message effectiveness, appeared below each frame. Each question was followed by a 7-point Likert scale anchored by 1 = "not at all" and 7 = "great extent." The questions were

1. To what extent is this message memorable?
2. To what extent is this message motivating?
3. To what extent would this message influence sailors' attitudes?
4. To what extent would this message influence sailors' behaviors?

We expected that the answers to these four questions would form a reliable scale of effectiveness for each frame.

We used open questions to collect demographics such as age, job, which Navy community they were part of, and sex. Answers to these questions were used to verify participation in the correct focus group.

Procedures

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Participants were recruited through local contacts who served as sexual assault prevention advocates or representatives. They distributed our recruiting information to members of each community and arranged meeting places and times for volunteers. They also managed the number of volunteers, attempting to recruit between four and six people for each sex/age/community group. Our recruiting information appeared as follows:

Sexual Assault Prevention Focus Group Goals

This study is about designing messages. We need help from Navy personnel to identify effective ways of presenting sexual assault prevention messages. Each conversation will focus on designing messages to have the greatest impact on Navy audiences. This will include asking participants which ways of framing a message seem more or less likely to be effective, and why.

The content to be conveyed in these messages is (a) sexual harassment and sexual assault are harmful, (b) bystanders can and should intervene to prevent sexual assault, and (c) every member of the Navy is personally responsible to intervene when necessary to prevent sexual assault. We will ask participants to help us design effective ways for conveying these messages.

We plan to ask for help to select a few approaches (such as focusing on Navy values versus family values versus community responsibility) and keywords (such as honor, courage, empowerment), and to assess the usefulness of messages that other (non-military) organizations have used. No personal questions will be asked.

Results of this study will be incorporated into recommendations to help the Navy's Sexual Assault Prevention and Response group develop messages that motivate bystanders to intervene when necessary to prevent sexual assault.

At the beginning of every group meeting, we distributed consent forms, handouts that repeated the recruiting information, and demographic sheets for the participants to fill in. Because of the potential for a discussion of bystander intervention to trigger painful emotions, we particularly emphasized the voluntary nature of participation and invited anyone who felt uncomfortable to leave at any time. We further protected participants' confidentiality by giving each person an ID number and asking them to use that number when responding to a question or commenting on what someone had said during the focus group sessions. This confidentiality was

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important to ensure that participants could share their thoughts without worrying about possible reactions from their chain of command.

The focus group sessions were divided into two parts. During the first part, we asked each participant to individually assess 30 message frames, with the understanding that each frame represented a general approach to convey the three-part message that sexual assault is harmful, intervention is appropriate, and the person receiving the information should intervene when necessary. The frames were at most a sentence or two long (see Appendix A for details) and contained language that might evoke thoughtful or emotional responses in the target audiences. For example, some message frames contained family metaphors, others referenced Navy core values, some used “salty” Navy language, and others referenced popular culture. Each frame was presented on a half-sheet of paper. Order of presentation was varied within each focus group to avoid order effects on responses. After everyone in the group had completed the 30 assessments, we asked them to choose “about three favorite strategies and about three strategies that should not be used.”

The sessions’ second part involved participants’ responses to open-ended questions. To prime the discussion, we asked each participant to discuss the message frames they thought would be most effective among their peers, and after everyone had presented their favorites, we asked them to discuss the message frames that they thought would be least effective. These responses provided detailed information about the individual’s and the community’s conceptual systems or mental structures—the factors that influenced their interpretation of the frames, their attitudes toward them, and their emotional reactions. We followed up with additional questions about their reasoning and invited comments and suggestions for conveying the desired information and motivation for bystander intervention.

Analysis Methods

We used the following methods to analyze the data we collected:

1. We calculated mean scores for respondents' assessments of the 30 message frames they evaluated to determine which frames were memorable, motivating, and likely to influence sailors' attitudes and actions.
2. We conducted factor analysis of the message frames to determine if the frames fell into groups. The factor that this grouping reflected, for example, family or moral action, enabled us to identify an overarching theme that embedded all of the constituent frames.
3. We determined if age, gender, and Navy community contributed to significant differences in mean assessment level for each theme, and we tested for significant differences in response to a male versus female potential victim.
4. We coded elements of the focus group discussions to determine what were sailors' favorite and least favorite frames, the reasons why they liked or disliked these frames, overarching factors that influenced their thinking about sexual harassment and assault, their reactions toward past sexual assault training, and their recommendations for ways to make bystander intervention training effective.

RESULTS

Respondents' assessments of the 30 frames were tested to ascertain whether the four questions (memorable, motivating, likely to affect attitudes, likely to affect behaviors) formed scales. In all cases, the four items formed reliable scales, with Cronbach's alphas above .9. We created scale scores for each of the frames, using the average response to each of the four items.

The 30 frames formed five distinct factors, with one frame standing alone. For each factor, we tested the reliability of constructing a scale from the constituent frames. In some cases,

we dropped one or more frames from the factor, based on inter-item correlations, before constructing a scale for the factor. Each resulting scale score indicates the mean across multiple frames that loaded significantly on one underlying theme. The six framing themes vary in focus on potential victims versus potential offenders and in orientation toward relationships, personal attributes, language and imagery, or presentation of facts. The themes that we identified appear in Table 2, along with the number of composing frames and Cronbach's alpha for each scale.

Insert Table 2 about here

Hypothesized Results

We tested our hypotheses using repeated-measures analysis of variance (ANOVA) with between-subjects factors, pairwise comparisons, and t-tests. Explanations from participants expanded our understanding of the statistics, and their additional ideas, anecdotes, and suggestions provided information that exceeded the scope of our survey. Participants' experience and advice revealed personal, cultural, and organizational factors that have been, and are likely to continue, impacting sailors' responses to bystander intervention messages.

Hypothesis 1, that different framing strategies for sexual assault prevention information have significantly different levels of impact on the audience's motivation to intervene, was supported by results of repeated-measures (within-subjects) ANOVA. Using the Greenhouse-Geisser adjustment for data that do not meet the assumption of sphericity, we find that the differences in assessed effectiveness of the six themes are significant ($F(4.383, 460.213) = 23.721, p < .001$). Means, standard deviations, sample sizes, and confidence intervals appear in Table 3. Between-subjects variance was high, with some people tending to rate every approach poorly and others tending to be more positive across all themes. Most of the people in Special

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Operations were negative about all of the frames and in general about the relevance of sexual assault to their work situation. Nevertheless, we find clear differences in the reported effectiveness of the various approaches, with “Family” rated significantly above all of the others ($p < .001$ for all comparisons, using the Bonferroni adjustment for multiple tests). Strength to Protect, Eye-catching information and Obligation, and Captain’s Mast received intermediate ratings, significantly below Family and significantly above the Slang Risk-taking and Preventive Imagery themes.

Insert Table 3 about here

H2, that some framing strategies are more effective for male audiences and others are more effective for female audiences, received mixed support. Overall, women rated the Family theme ($p = .003$) and the Strength to Protect theme ($p = .009$) more favorably than did men, but this difference is influenced by the overall tendency of women to give higher ratings. On average, men and women preferred the Family theme, but their rankings of the intermediate frames differed somewhat. Women, on average, chose Family, Strength to Protect, Eye-catching Information and Obligation, and Captain’s Mast, in that order. Men, on average, chose Family, Captain’s Mast, Eye-catching Information and Obligation, and Strength to Protect, in that order. In addition, men’s and women’s assessments of the framing themes differed by community. Means for each framing theme, by respondent sex, appear in Table 4. Interactions among community, sex, and age group will be addressed below.

Insert Table 4 about here

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Hypothesis 3, that effectiveness of a framing strategy is influenced by membership in a particular community, was partially supported. When within-subjects variance is controlled using the repeated-measures ANOVA, we find that some communities are more positive than others toward sexual-assault prevention messaging ($F(4,86) = 2.828, p = .03$). One-way ANOVA comparing mean assessment scores across communities indicates that there are significant differences in communities' assessments of the Preventive Imagery ($p = .024$) and Eye-catching Info and Obligation ($p = .005$) frames. Mean assessment scores for each theme are broken out by community in Table 5.

Insert Table 5 about here

Sex and community together affected levels of preference for the bystander intervention themes. The graphs in Figure 2 depict marginal mean assessments, controlling for within-subjects variance, for the four highest-ranked themes, broken out by sex and community. Although women rated most of the frames more positively than did men, we find that Surface Warfare women were less positive about the Family theme than were the Surface Warfare men. Men in the Medical community were less positive than the others about the Family theme. Special Operations community members were less favorable toward Eye-catching Information and Obligation than members of the other communities, and Special Operations men were more favorable toward the Captain's Mast frame than were the Special Operations women.

Hypothesis 4, that effectiveness of a framing strategy is influenced by age category, was partially supported. Younger people tended to be more positive toward bystander messaging than older people (see Table 6). This effect remains significant when controlling for within-subjects variance across themes ($F(1,86) = 13.082, p = .001$). As a result, people who were 24

years of age or younger tended to respond more favorably than their older colleagues to most of the themes. Both age groups preferred the same four themes, but the “Captain’s Mast” theme, highlighting the need to prevent friends from making mistakes that could get them in trouble, resonated more with the younger people ($p = .017$).

Insert Figure 2 and Table 6 about here

In addition to direct effects, age, sex, and community interacted to influence responses to some themes. Using a general linear model to control for within-subjects effects across constituent frames within each multi-item theme, we tested between-subjects effects of community, sex, and age on each theme. We used a general linear model to test joint effects of community, sex, and age on the Captain’s Mast theme. Results for the highest-rated themes follow.

The Family theme, while clearly preferred over the other strategies, varied in effectiveness across demographic groups. Results show significant interaction effects from community, sex, and age on preference for the Family theme (See Table 7). The Strength to Protect (Table 8), Eye-catching Information and Obligation (Table 9), and Captain’s Mast themes also varied in effectiveness across demographic groups. Response to the Strength to Protect theme varied by sex, age, and a community by age interaction. Response to the Eye-catching Information and Obligation theme varied by community and a three-way interaction among community, sex, and age. Response to the Captain’s Mast theme varied only by age ($p = .017$) and marginally by community ($p = .093$), repeating results presented above, with no significant interaction effect.

Insert Tables 7, 8 and 9 about here

H5, that Navy personnel are more motivated to intervene if the potential target of assault is a woman than if the potential target is a man, was supported. The Family theme included two frames, one using a male referent (brother) as a potential target and the other using a female referent (sister) as a potential target. The texts read: "Would you stand by while someone assaulted your brother? Every sailor is family; don't let them down." and "Would you stand by while someone assaulted your sister? Every sailor is family; don't let them down." The items were presented in succession, with about half of the people in each focus group seeing the male referent first and the other half seeing the female referent first.

A paired-samples t-test indicates that the female referent received significantly higher ratings (Mean = 5.322) than the male referent (Mean = 4.896) across all participants ($t = -3.371$, $p = .001$). Preference for the female referent was particularly strong among men (see Table 10).

Insert Table 10 and Figure 3 about here

Focus Group Feedback on Specific Message Frames

Members of the focus groups identified their favorite frames, as well as frames that they believed should not be used. The frames that referenced sister and brother were most often chosen as the best, followed by a statement of the number of sexual assaults that occurred in the Navy during one year. Participants' selections of most-effective frames are summarized in Figure 3. The individual frames are clustered in the graph according to the themes that they compose. These results align with the numeric assessments, but they are distinct in reporting the number of times that each frame was chosen as one of the best.

DISCUSSION AND CONCLUSIONS

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This study was designed to identify message framing strategies that resonate with Navy personnel, to discern differences among community, sex, and age groups in responsiveness to distinct strategies, and to decipher whether or not the sex of the potential victim affects willingness to intervene. Results suggest the following: (1) Distinct framing strategies for sexual assault prevention information have significantly different levels of impact on the audience's motivation to intervene. Framing strategies that reference kinship ties and draw on family-based roles, identities, and emotions are likely to be most effective across all communities. Based on focus group discussions, the concept of Navy family may be effective for people on deployment, but overall, references that lead people to apply their feelings for actual family members to non-family are most effective. (2) Effectiveness of a framing strategy is influenced by age, sex, and community. These demographics interact, such that well-tailored information campaigns should adjust their framing approaches to reach specific target audiences. This could be accomplished by supplementing the general information with locally tailored messages. (3) Navy personnel are more motivated to intervene if the potential assault target is a woman rather than a man. Sailors showed more concern for potential female victims of sexual assault than for potential male victims, and many expressed skepticism about the risk that men could be assaulted. Accurate information should be distributed to dispel these misconceptions.

Systematic differences in values among the various demographic groups could affect the impact of sexual assault prevention training. For example, unlike the other cohorts, the preferred theme among young men in the Supply Corps was Preventive Imagery (Mean = 5.33). Further, some groups were negative toward all of these strategies, reflecting their general attitude toward sexual assault prevention messages. Many people expressed frustration with repeated, required sexual assault prevention training. Some felt that it was pointless and unnecessary or just a box-

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check. A large number of men found prior Navy training to be insulting, with messages framed as though most men were criminals. We wondered if these bad experiences with prior training might explain the significantly lower ratings by men of the various framing strategies. Certainly, in conversation, we heard repeatedly that they were “SAPR’d out,” meaning that they were exhausted by the emphasis on sexual assault prevention and response (SAPR in Navy-speak). To overcome this broad-based resistance to sexual assault prevention messages, the Navy needs to treat its audiences with respect, frame messages in terms of their family values, provide objective information in ways that catch attention, and generally motivate intervention by aligning education and training with the prevailing values. Focus group respondents further recommended testimonials in the form of narratives from different people impacted by sexual assault, with the intent to help the audience understand the risks and develop empathy. By aligning bystander intervention messages with the intrinsic motivators of Navy audiences, the organization may be able to increase awareness and willingness to intervene when someone is at risk of sexual assault.

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MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 1

Demographics of Participants

Community	24 Years and Under		25 Years and Up	
	Male	Female	Male	Female
Medical	6	6	6	8
Supply Corps	4	4	5	5
Special Operations	5	3	5	4
Surface Warfare	5	7	4	3
Aviation	5	10	11	5
Totals	25	30	31	25

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 2

Structure of Factors Representing Framing Themes

Factor	Number of Frames and Loadings	Cronbach's Alpha
Personal moral strength to take protective action	10 frames (item loading \geq .660)	.927
Colloquial language to motivate social risk-taking to prevent an offense	5 frames (item loading \geq .538)	.855
Family	2 frames (item loading \geq .745)	.811
Strong images to prevent a friend from inappropriate action	3 frames (item loading \geq .578)	.707
Eye-catching information and obligation	3 frames (item loading \geq .592)	.776
Help friend avoid Navy punishment	1 frame	N/A

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 3

Assessment of Effectiveness for Each Framing Theme

Framing Theme	Mean	Std. Deviation	N	95% Confidence Interval	
				Lower Bound	Upper Bound
Strength to Protect	4.1481	1.29877	106	3.898	4.398
Slang Risk-taking	3.6547	1.47712	106	3.370	3.939
Family	5.0814	1.53685	106	4.785	5.377
Preventive Imagery	3.5480	1.41953	106	3.275	3.821
Eye-catching Info and Obligation	4.1333	1.52853	106	3.839	4.428
Captain's Mast	4.2594	1.87969	106	3.897	4.621

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 4

Comparison of Men's and Women's Assessments of Framing Themes

Theme	Sex	N	Mean	Std. Deviation
Strength to Protect	Male	56	3.8715	1.32150
	Female	55	4.5014	1.17452
Preventive Imagery	Male	56	3.5461	1.50083
	Female	55	3.6364	1.31472
Slang Risk-taking	Male	56	3.6181	1.51529
	Female	55	3.7416	1.47132
Family	Male	56	4.6853	1.59438
	Female	55	5.5409	1.32922
Eye-catching Info and Obligation	Male	56	3.9561	1.65292
	Female	55	4.4402	1.37080
Captain's Mast	Male	53	4.2075	1.90441
	Female	53	4.3113	1.87141

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 5

Mean Assessments of Themes by Community

	Strength to Protect	Preventive Imagery	Slang Risk- taking	Family	Eye- catching Info and Obligation	Captain's Mast
Medical	4.0250	3.2853	3.7500	4.5481	4.3349	4.2212
Supply Corps	4.5625	4.1991	3.7778	5.1597	4.1296	4.7500
Special Ops	3.7471	3.2892	3.2324	4.9706	3.2255	3.6029
Surface Warfare	4.0145	3.0351	3.4026	5.1645	3.8202	3.8026
Aviation	4.4397	4.0000	3.9774	5.5927	4.8804	4.7212
Total	4.1836	3.5908	3.6793	5.1092	4.1959	4.2594

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 6

Comparison of Framing Theme Assessments by Age Category

	Age Category	N	Mean	Std. Deviation	T-score and p-value
Strength to Protect	24 Years and Under	55	4.3986	1.23071	t = 1.765
	25 Years and Up	56	3.9724	1.31231	p = .08
Preventive Imagery	24 Years and Under	55	3.8818	1.50254	t = 2.195
	25 Years and Up	56	3.3051	1.25270	p = .03
Slang Risk-taking	24 Years and Under	55	4.0127	1.41353	t = 2.390
	25 Years and Up	56	3.3518	1.49902	p = .019
Family	24 Years and Under	55	5.4705	1.23743	t = 2.542
	25 Years and Up	56	4.7545	1.69826	p = .013
Eye-catching Info and Obligation	24 Years and Under	55	4.4114	1.49893	t = 1.476
	25 Years and Up	56	3.9844	1.54835	p = .143
Captain's Mast	24 Years and Under	55	4.6818	1.60760	t = 2.437
	25 Years and Up	51	3.8039	2.05445	p = .017

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Table 7

Between-subjects Effects on Preference for Family Frame

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	5117.024	1	5117.024	1454.371	.000
CommNum	39.251	4	9.813	2.789	.031
SexM0F1	28.095	1	28.095	7.985	.006
AgeCat	34.074	1	34.074	9.685	.002
CommNum * SexM0F1	48.702	4	12.176	3.461	.011
CommNum * AgeCat	17.518	4	4.379	1.245	.298
SexM0F1 * AgeCat	.965	1	.965	.274	.602
CommNum * SexM0F1 * AgeCat	36.692	4	9.173	2.607	.041
Error	316.654	90	3.518		

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 8

Between-subjects Effects on Preference for Strength to Protect Frame

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	17210.559	1	17210.559	1190.031	.000
CommNum	85.808	4	21.452	1.483	.214
SexM0F1	122.298	1	122.298	8.456	.005
AgeCat	66.769	1	66.769	4.617	.034
CommNum * SexM0F1	27.719	4	6.930	.479	.751
CommNum * AgeCat	150.618	4	37.655	2.604	.041
SexM0F1 * AgeCat	13.195	1	13.195	.912	.342
CommNum * SexM0F1 * AgeCat	44.575	4	11.144	.771	.547
Error	1301.605	90	14.462		

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 9

Between-subjects Effects on Eye-catching Info and Obligation Frame

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	4932.856	1	4932.856	835.206	.000
CommNum	93.003	4	23.251	3.937	.005
SexM0F1	16.340	1	16.340	2.767	.100
AgeCat	15.273	1	15.273	2.586	.111
CommNum * SexM0F1	4.253	4	1.063	.180	.948
CommNum * AgeCat	30.704	4	7.676	1.300	.276
SexM0F1 * AgeCat	.033	1	.033	.006	.941
CommNum * SexM0F1 * AgeCat	63.063	4	15.766	2.669	.037
Error	531.554	90	5.906		

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Table 10

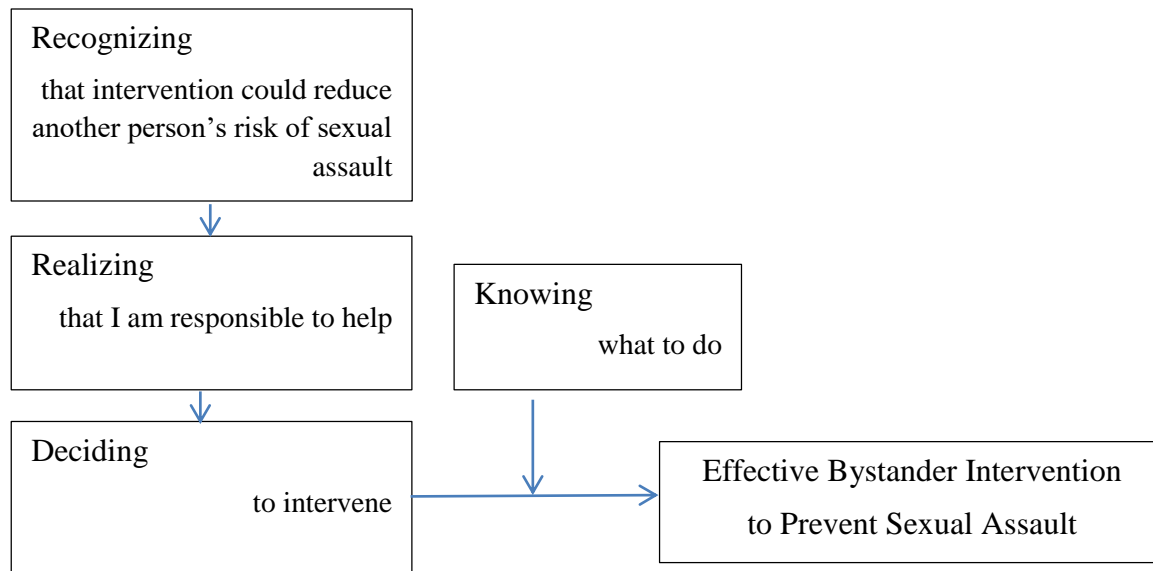
Assessments of Male-Victim versus Female-Victim Frames, by Sex and Age

Sex	Age Category		Brother Frame	Sister Frame
Male		24 Years and Under	4.6700	5.3500
		25 Years and Over	4.0333	4.7823
	Total	Male Mean	4.3227	5.0357
Female		24 Years and Under	5.7583	5.9500
		25 Years and Over	5.1200	5.2100
	Total	Female Mean	5.4682	5.6136
Total		24 Years and Under	5.2636	5.6773
Men and		25 Years and Over	4.5273	4.9732
Women	Total	All Participants	4.8955	5.3221

MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Figure 1

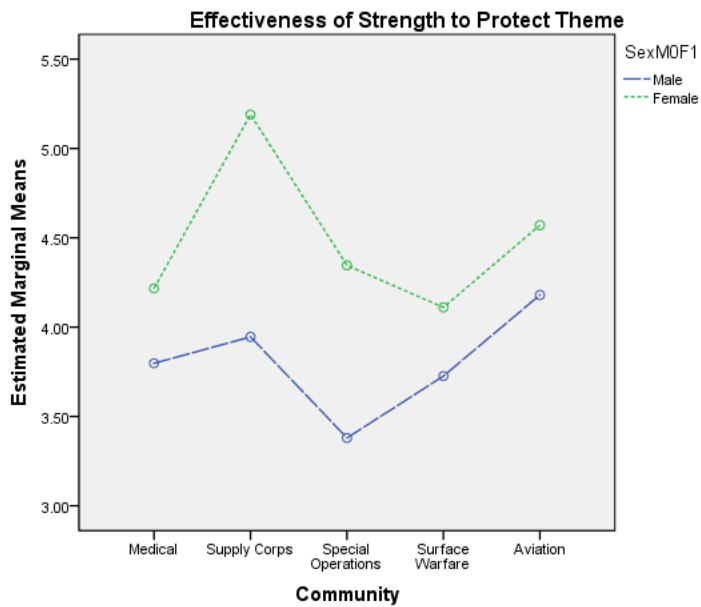
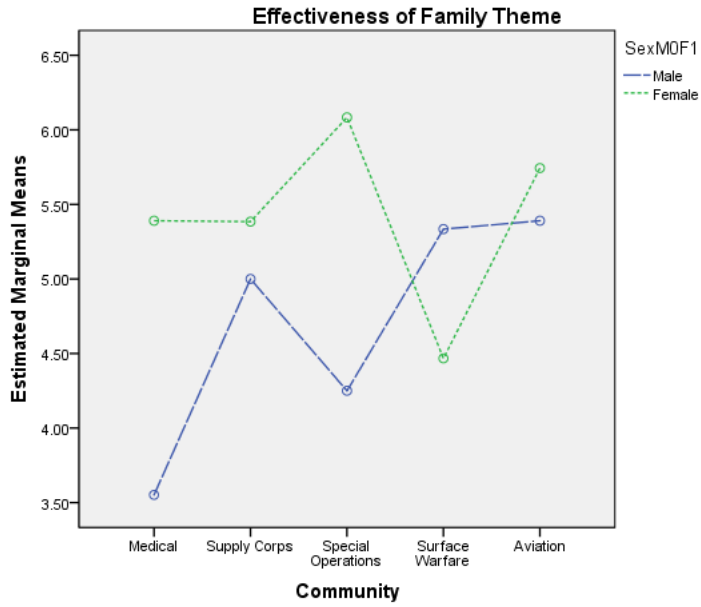
Necessary Cognitive Steps for Effective Bystander Intervention to Prevent Sexual Assault



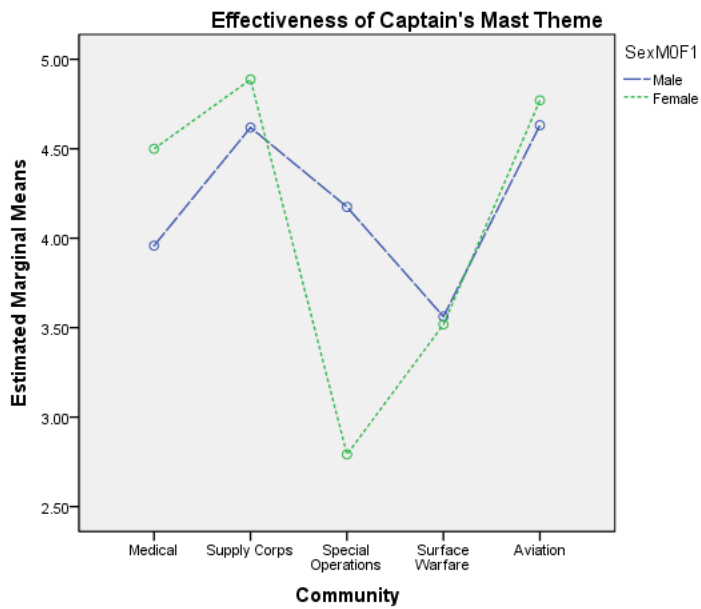
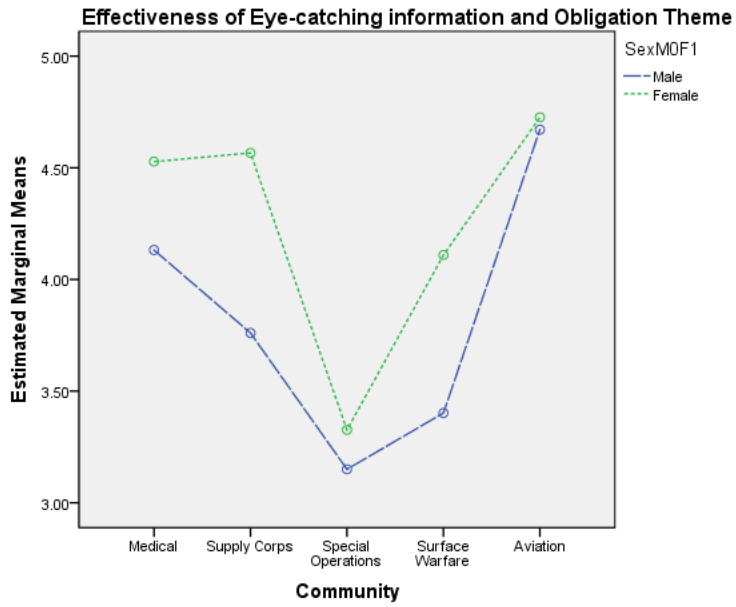
MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Figure 2

Four Bystander Intervention Themes, Assessments by Community and Sex



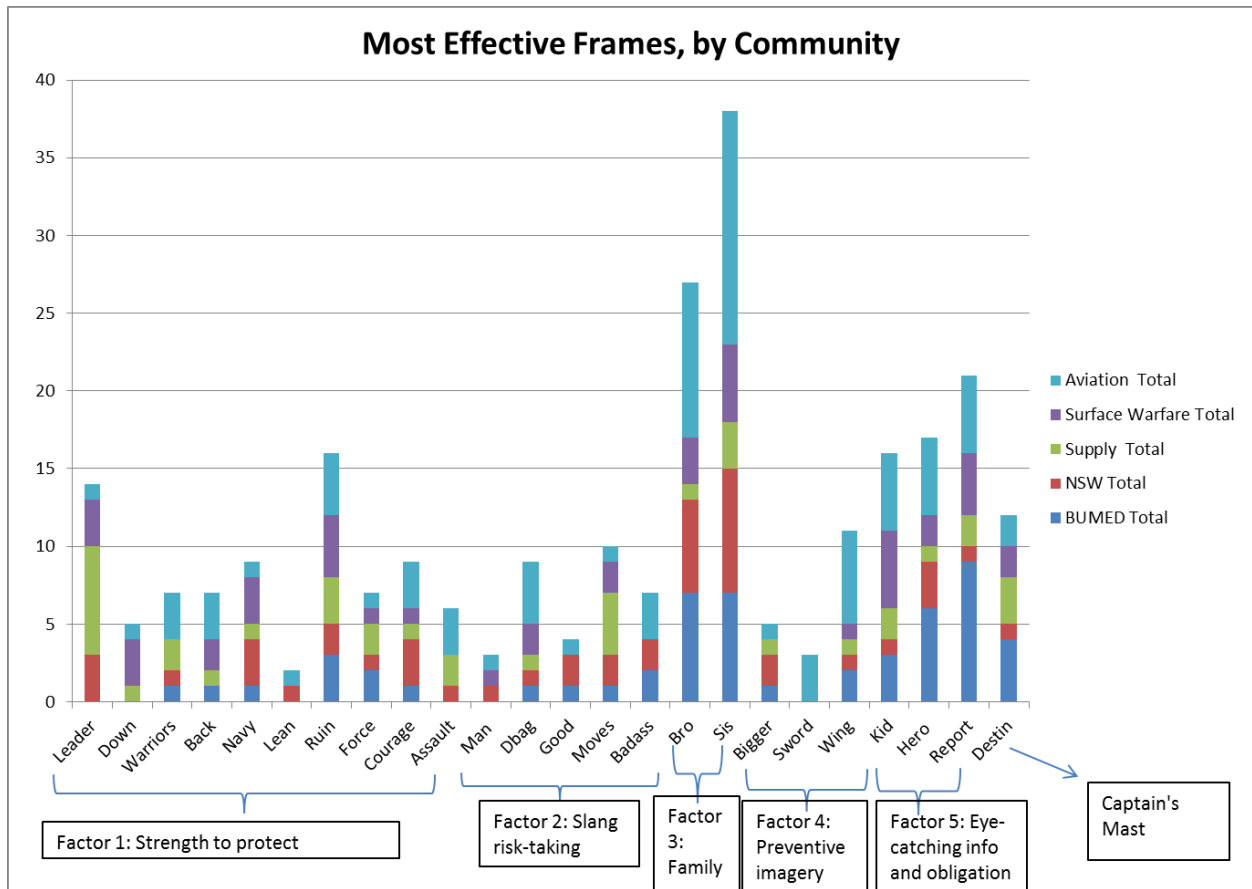
MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT



MESSAGE FRAMING TO PREVENT SEXUAL ASSAULT

Figure 3

Number of Participants Naming Each Frame as the Most Effective



APPENDIX

Following pilot testing, we selected thirty ways to frame the message that the audience should intervene to prevent sexual assault. These thirty frames loaded on five primary factors, with two frames standing alone. Each factor equates to a conceptual theme.

Factor I

Theme: Personal moral strength to take protective action

Label: Strength to protect

Cronbach's alpha: .927

10 items included in our measure of Factor 1 (item loading \geq .660):

1. "Be a force for good: do your part to prevent sexual harassment and assault."
2. "Be a leader: keep every sailor safe."
3. "Don't stand down. Step up to prevent sexual harassment and assault."
4. "Every day warriors keep all their people safe at all costs: intervene to stop sexual assault."
5. "Have the courage to act: intervene to prevent sexual assault."
6. "Have your fellow sailors' back: keep your shipmates safe from sexual harassment and assault."
7. "Keep your Navy family out of harm's way."
8. "Lean in; keep your workplace safe and professional."
9. "Sexual assault ruins lives. Don't let it happen on your watch."
10. "We don't 'stand by' while someone assaults a shipmate."

Additional items loading primarily on factor 1, but excluded from our measure of this theme:

1. "You have influence; speak up to keep your friends out of trouble." (item loading = .592)

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2. "Take care of America's sons and daughters: prevent sexual harassment and sexual assault." (item loading = .519)

Factor II

Theme: Colloquial language to motivate social risk-taking to prevent an offense

Label: Slang risk-taking

Cronbach's alpha: .855

5 items included in our measure of Factor 2 (item loading \geq .538):

1. "Be a good bad a**, take the tough action."
2. "Don't let your buddy's *moves like Jagger* torpedo his career. Step up...speak out."
3. "Only d-bags do nothing when their buddies are being stupid."
4. "Use your man card, step in and help a friend. Standing by is not standing up."
5. "We are too good to let a d-bag ruin our reputation. Don't let it happen."

Additional item loading primarily on factor 2, but excluded from our measure of this theme:

1. "Make sure your buddy won't be talking to the JAG about why he thought she really wanted to "do it." " (item loading = .501)

Factor III

Theme: Family

Label: Family

Cronbach's alpha: .811

2 items included in our measure of Factor 3 (item loading \geq .745)

1. "Would you stand by while someone assaulted your brother? Every sailor is family; don't let them down."

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2. "Would you stand by while someone assaulted your sister? Every sailor is family; don't let them down."

Additional items loading primarily on factor 3, but excluded from our measure of this theme:

2. "Your mom would step in, how about you?"

Factor IV

Theme: Strong images to prevent a friend from inappropriate action

Label: Preventive imagery

Cronbach's alpha: .707

3 items included in our measure of Factor 4 (item loading $\geq .578$)

1. "Bigger, better, stronger: Jump in."
2. "Don't let your shipmate fall on his sword."
3. "Wingman, don't let your buddy crash and burn."

Factor V

Theme: Eye-catching information and obligation

Label: Eye-catching info and obligation

Cronbach's alpha: .776

3 items included in our measure of Factor 5 (item loading $\geq .592$)

1. "(Cute little kid) Did you know that most sexual assaults could be prevented? The right thing to do is help a person in need, and if you don't do it, who will?"
2. "**Hero**: *noun*: \`hir-ō\`; a person who is admired for great or brave acts fine qualities. *The hero saved a fellow sailor from being assaulted.*"
3. "There were 3,374 reported sexual assaults in the DoD in 2012. Most of them could have been prevented."

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Single-item Theme

Theme: Help friend avoid Navy punishment

Label: Captain's Mast

1. "Destination: Captain's Mast. Help your friends steer a better course."

Additional items that did not load cleanly with our six themes:

1. "Be Heroic: save a friend from going to jail." (no significant loading with other items)
2. "Look out for your brothers' and sisters' six: intervene to stop sexual assault." (loading with Factor 1 = .532, and with Factor 3 = .517)