

The Pennsylvania State University

The Graduate School

College of the Liberal Arts

**STRATEGIC MESSAGE DESIGN WITHIN THE CONTEXT OF ORAL SEX:
INTEGRATING GUILT APPEALS AND PROSPECT THEORY**

A Thesis in

Communication Arts and Sciences

by

Judith L. Weiner

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Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

December 2004

The thesis of Judith L. Weiner was reviewed and approved* by the following:

Roxanne L. Parrott
Professor of Communication Arts and Sciences and Health Policy and
Administration
Thesis Advisor
Chair of Committee

Walid A. Afifi
Associate Professor of Communication Arts and Sciences

Michael L. Hecht
Professor of Communication Arts and Sciences and Crime, Law and
Justice

Eva S. Lefkowitz
Assistant Professor of Human Development and Family Studies

Jon F. Nussbaum
Professor of Communication Arts and Sciences and Human Development
and Family Studies

James P. Dillard
Professor of Communication Arts and Sciences
Head of the Department of Communication Arts and Sciences

*Signatures are on file in the Graduate School

ABSTRACT

Sexual decision making is not always a rational process and once engaged in sexual activities, individuals are not necessarily thinking about safety concerns or the consequences of their behavior. Health messages are often based on rational appeals that point to risk and encourage precautionary actions to protect individuals from pregnancy, STIs, and HIV but neglect the affective responses to such messages. The current study was designed to develop messages that address the cognitive and affective involved in sexual decision-making by integrating affect into Prospect Theory. According to the framing postulate of Prospect Theory, individuals will respond differently to factually equivalent information based on how it is framed (Rothman & Salovey, 1997). Different audience characteristics (e.g., sex, health orientation) and individual predisposition variables such as self- and response efficacy also influence individuals' responses to messages. Therefore, it was posited that segments of the audience would respond to gain- or loss-framed guilt appeals slightly differently. To examine the processes associated with peoples' responses to sexual health messages participants completed measures of health orientation, intensity of relational commitment, anger, embarrassment, guilt, perceived behavioral control, self- and response efficacy, reinforcement of attitudes, actual and procedural knowledge and behavioral intentions. Participants were randomly assigned to one of the five message conditions; they were instructed to read a message and then completed a questionnaire. Results revealed differences between 'users' and 'nonusers.' More specifically, 'users' reported greater intentions to use protection for oral sex, were less concerned with what their partners' thought of them, were less angry, but experienced more guilt than 'nonusers.' Individuals in committed relationships were examined and the results for both the gain- and loss-framed conditions were similar. That is, for both types of frames guilt and anger were significant predictors of intentions to use. The more guilty individuals experienced the more likely they were to use protection for oral sex in the future and the inverse relationship was found with anger. Surprisingly, a similar pattern emerged for individuals in non-committed relationships. These results are discussed in terms of the importance of using theory to guide message construction and the significance of guilt appeals. Limitations of the study and implications for future research are also discussed.

TABLE OF CONTENTS

LIST OF TABLES	ix
LIST OF FIGURES	xi
ACKNOWLEDGEMENTS	xii
Chapter 1. INTRODUCTION	1
REVIEW OF LITERATURE	1
Sexual Health Literature	3
Audience Segmentation	5
Sex	7
Health Orientation	8
Performance of Recommended Response/ Behavior	9
Type of Relationship	11
Emotions	13
Defining Guilt	15
Anticipatory guilt	17
Anticipatory regret	18
Defining Embarrassment	19
Defining Anger	20
Prospect Theory	22
Theoretical Explanations	23
Health Applications	28
Guilt and Persuasion	30
Guilt Arousal in Interpersonal Relationships	30
Guilt Appeals in Persuasive Messages	32
An Alternative Explanation for Message Framing: Guilt Appeals	35
Definitions	39
Sex	39
Health orientation	39
Performance of recommended response/ behavior	39
Type of relationship	40
Message framing	41
Guilt appeal	41
Guilt	42
Embarrassment	42
Anger	42
Guilt Appeals and Message Framing	43
Perceived Behavioral Control	45
Behavioral Health Outcomes	45
Self-Efficacy	46
Response Efficacy	46

Actual Knowledge	47
Procedural Knowledge	47
Behavioral Intentions	47
Reinforcement/ Maintenance	48
Application of MFGAM to Oral Sex	48
Chapter 2. METHODS	54
Overview of Methods	54
Formative Research	54
Participants	54
Procedures	55
Focus group script and questions	55
Data Analysis	58
Results of Formative Research	59
Instrument Development and Assessment	60
Participants	60
Design for Instrument Assessment	61
Survey Instrument	62
Measures for Instrument Development	62
Message clarity	62
Message framing	63
Message induced affect	63
Message content	63
Condom embarrassment	64
Guilt regarding condom use	64
Anger regarding condom use	65
Relational transgressions	65
Condom use self-efficacy	66
Response efficacy	66
Behavioral intentions	67
Results of Instrument Development and Assessment	67
Factor Analysis	67
Condom Embarrassment	68
Guilt Regarding Condom Use	68
Guilt regarding oral sex	68
Guilt regarding vaginal/ general sex	68
No guilt	69
Anger Regarding Condom Use	69
Anger regarding vaginal sex	69
Anger regarding oral sex	69
Condom Self-Efficacy Scale	70
Partner's disapproval	70
Intoxicants	70
Mechanics 'after'	71

Mechanics ‘use’	71
Response Efficacy	71
Behavioral Intentions	71
Behavioral intentions for vaginal sex	72
Behavioral intentions for oral sex	72
Message Pilot Study Methods	74
Participants	74
Design of Message Pilot Study	74
Survey Instrument	75
Measures for Message Pilot Study	75
Message clarity	75
Message framing	75
Message induced affect	75
Message content	76
Overall Results from the Three Phases	77
Methods for Study	80
Design of Study	80
Participants	81
Measures for study	82
Message clarity	82
Message framing	82
Message induced affect	82
Message content	83
Guilt appeals	83
Health orientation	84
Anger regarding use of protection	85
Embarrassment regarding use of protection	85
Guilt regarding use of protection	86
Perceived behavioral control	87
Reinforcement	87
Self-efficacy regarding use of protection	87
Response efficacy	89
Behavioral intentions	90
Actual knowledge	90
Procedural knowledge	90
Mutual commitment	91
Demographics	91
Data Collection Procedures	93
Chapter 3. RESULTS	94
Preliminary Data Analysis	94
Data distribution	94
Results of order effect	94
Manipulation checks	95

Results.....	103
Hypotheses Tests.....	103
Hypothesis one.....	103
Research question one.....	107
Hypothesis two.....	109
Research question 2A.....	114
Research question 2B.....	115
Hypothesis three.....	115
Hypothesis four.....	120
Chapter 4. DISCUSSION.....	124
Summary of Findings.....	125
Integration of Affect into Prospect Theory: Effects of Guilt Appeals.....	128
Message Framing and Guilt Arousal.....	129
Message Framing and Anger Arousal.....	131
Message Framing and Embarrassment.....	133
Limitations.....	135
Future Research Directions.....	137
REFERENCES.....	140
APPENDICES.....	147
Appendix A: Focus Group Script and Questions.....	158
Appendix B: Focus Group Informed Consent.....	163
Appendix C: Focus Group Questionnaire.....	165
Appendix D: Focus Group Message – <i>Protect Yourself and Your Partner!</i>	166
Appendix E: Focus Group Message – <i>Know the Facts...Protect Yourself and Your Partner!</i>	167
Appendix F: Female – Oral Sex Message.....	168
Appendix G: Female – Vaginal Sex Message.....	170
Appendix H: Male – Oral Sex Message.....	172
Appendix I: Male – Vaginal Sex Message.....	174
Appendix J: Female, Gain, Give, Guilt Appeal.....	176
Appendix K: Female, Gain, Receive, Guilt Appeal.....	177
Appendix L: Female, Loss, Give, Guilt Appeal.....	178
Appendix M: Female, Loss, Receive, Guilt Appeal.....	179
Appendix N: Male, Gain, Give, Guilt Appeal.....	180
Appendix O: Male, Gain, Receive, Guilt Appeal.....	181
Appendix P: Male, Loss, Give, Guilt Appeal.....	182
Appendix Q: Male, Loss, Receive, Guilt Appeal.....	183
Appendix R: Control Message.....	184
Appendix S: Message Clarity.....	185
Appendix T: Message Framing.....	186

Appendix U: Message Induced Affect.....	188
Appendix V: Message Content.....	189
Appendix W: Guilt Appeal.....	190
Appendix X: Health Orientation.....	191
Appendix Y: Anger Regarding Use of Protection.....	192
Appendix Z: Embarrassment Regarding Use of Protection.....	193
Appendix AA: Guilt Regarding Use of Protection.....	194
Appendix BB: Perceived Behavioral Control.....	195
Appendix CC: Reinforcement.....	196
Appendix DD: Self-Efficacy.....	197
Appendix EE: Response Efficacy.....	198
Appendix FF: Behavioral Intentions.....	199
Appendix GG: Actual Knowledge.....	200
Appendix HH: Procedural Knowledge.....	201
Appendix II: Mutual Commitment.....	202
Appendix JJ: Demographics.....	203
Appendix KK: Consent Form.....	205

LIST OF TABLES

Table 1. Factor Loadings for Factor Analysis of Condom Self-Efficacy – Instrument Development	71
Table 2. Factor Loadings for Factor Analysis Self-Efficacy	92
Table 3. Summary of Message Framing, Likert-type and Semantic Differential, Manipulation Check Items.....	100
Table 4.1 Correlations for predictor variables, covariates and behavioral intentions for individuals who <i>have used</i> and <i>have not used</i> protection for oral sex.	104
Table 4.2 Correlations for predictor variables, covariates and behavioral intentions for individuals who <i>have used</i> and <i>have not used</i> protection for oral sex (Cont.).	105
Table 4.3 Use of protection versus non-use of protection Means and Standard Deviations on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner’s Disapproval, Response Efficacy, Reinforcement, Perceived Behavioral Control, Anger, Embarrassment, and Guilt	107
Table 5.1 Multivariate Analysis of Variance: Sex of Target Sex on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner’s Disapproval, Response Efficacy, Reinforcement, Perceived Control, Anger, Embarrassment, Guilt, Actual and Procedural Knowledge.....	109
Table 5.2. Means and Standard Deviations for Men and Women on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner’s Disapproval, Response Efficacy, Reinforcement, Perceived Control, Anger, Embarrassment, Guilt, Actual and Procedural Knowledge.....	109
Table 6.1 Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a gain-framed guilt appeal message.	111
Table 6.2 Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a gain-framed guilt appeal message (Cont.).....	111
Table 6.3. Table Hierarchical Regression Predicting Behavioral Intentions for those in committed relationships exposed to a Gain-framed guilt appeal.....	113

Table 7.1. Means and Standard Deviations for Men and Women in committed relationships exposed to a Gain-framed guilt appeal message on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner's Disapproval, Response Efficacy, Perceived Control, Anger, Embarrassment, and Guilt.....	115
Table 8.1. Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a loss-framed guilt appeal message.....	117
Table 8.2. Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a loss-framed guilt appeal message (Cont.)	117
Table 8.3. Table Hierarchical Regression Predicting Behavioral Intentions for those in committed relationships exposed to a Loss-framed guilt appeal	119
Table 9.1. Correlations for predictor variables and behavioral intentions for Individuals in non-committed relationships that have never used protection for oral sex.	121
Table 9.2. Correlations for predictor variables and behavioral intentions for Individuals in non-committed relationships that have never used protection for oral sex (Cont.).....	121
Table 9.3. Table Hierarchical Regression Predicting Behavioral Intentions for those in non-committed relationships.....	123

LIST OF FIGURES

Figure 1: The Message Framing Guilt Appeals Model (MFGAM)..... 38

ACKNOWLEDGEMENTS

I've written and rewritten my 'acknowledgements' several times in my head and now as I sit down to actually type, I seem to be struggling to find the words that adequately express my appreciation and gratitude for the numerous individuals who helped make my journey through the 'dissertation tunnel' bearable. I would like to thank everyone who ever muttered kind words of encouragement in the hallways of Sparks, to those of you who offered to do my laundry and/or bring me food! And for all the emails, phone calls and snail mail from friends and family.

I did not know what was in store for me during my first semester of grad school. Fortunately, I was surrounded by an incredible group of people who were little cheerleaders and intellectual mentors. I would like to thank my Kent State 'family' – Dr. Dobos, Kevin, Rachel, Jeff, and Traci A.!

As luck would have it, I happened upon another cluster of fantastic folks at Penn State. Throughout my tenure at PSU there have been lots of academic, as well as personal, ups and downs. I am very glad I was able to share my personal joys, such as becoming an aunt (three times over), as well as my personal losses with caring, supportive people. Megan, Kami, Doreen, Maggie, Janice, Kellie, Heather, Elise, Eirko, Jen JC, and Tracey Q....thank you for helping keep me sane during some insane times. And to Mz. Mandy...I am grateful for the time I was able to call you my friend and I will always remember your spirit.

Special thanks to my committee members – Walid Afifi, Michael Hecht, Eva Lefkowitz, and Jon Nussbaum. I would like to thank Walid for his time, effort and influence during my formative years here at PSU. Thank you to Michael for your genuine

interest in this project and your thought provoking questions. Thank you to Eva for your incredible attention to detail and insightful feedback. And thanks to Jon for being a calm and centered force throughout my graduate career. Thank you all for your time, expertise, feedback and support!

I distinctly remember a conversation I had recently with a good friend about our grad school experiences and our advisors. She said that some people have a transformative effect on our lives...Roxanne is such an individual. She has been an amazing mentor and role model. Thank you for the opportunity to work and learn from you, for your time and patience along the way...and thank you for living by example.

They say you can pick your friends, but not your family. However, if I *had* the opportunity to pick my family, I would pick the same group of people. Mom and Dad – what can I say? Words cannot even begin to express how grateful I am to have you as my parents. I’ve been in school a really *long* time and my career choice may not make sense to folks, but you two were always behind me. Thanks also to Aunt Fay for periodically calling just to say ‘hi!’ Thanks to Aunt Peg for feeding my mailbox with thoughtful pieces of snail mail and to Uncle Mel for always inquiring about my project and for asking “are you sure this topic is ‘dissertation worthy’?” Thank you to John, my brother-in-law and my three delicious little nieces Isabel, Sarah, and Emma...for reminding me to smile and laugh along the way. Thanks to my sisters, Janet and Jaime, who I love fiercely. The love and support of my family made it easier to reach my goal – much love and thanks!

Chapter 1

INTRODUCTION

An overwhelming need for condom education and distribution exists in the United States as such efforts have substantial financial, health, and social implications.

Researchers note that for every HIV infection that is avoided, there is a projected savings of \$80,000 in medical costs (Olenick, 1999). These numbers should be incentive enough to support new educational programs to address sexuality and safer sex. However, there are numerous challenges to implementing sexuality and safer sex education and prevention programs that go beyond financial concerns. This area of study elicits different emotions, moral, and ethical reactions from the lay public and other groups. For example, many religious organizations preach only abstinence while the Sexuality Information and Education Council of the United States (SIECUS) advocates comprehensive sexuality education with a focus on abstinence *and* alternative methods of contraception. Even though groups on either end of the sexuality education continuum have differing perspectives regarding the form in which information is packaged and disseminated to adolescents and young adults, the primary goals of decreasing rates of pregnancy and the spread of sexually transmitted infections (STIs) are interrelated and inextricably linked to communication.

Sexual activity is inherently communicative, whether it is verbal or nonverbal. We first learn about sexual attitudes and behaviors from our families, and then through our peers. How the topics of sex and sexuality are “talked” about with friends and family members influences our sense of what is appropriate and how we should act (i.e., sexual scripts). There is substantial evidence that talking with adolescents about sex (i.e., use of

condoms, morality, emotional responses, etc) can delay first intercourse and contribute to greater likelihood to use protection during sexual intercourse (e.g., Guzmán et al., 2003). However, additional research is needed to provide parents and guardians with more specific tools and direction in terms of *how* to address these challenging issues (e.g., Lefkowitz, Boone, Au, & Sigman, 2003). In addition, it is well-known that consistent and correct condom use can significantly decrease the spread of STIs, and yet, only a small percentage of young adults actually use protection consistently. Part of the reason for this disparity between knowledge and actual behavior may be because condom negotiation is difficult. The conversation to introduce and use condoms can be face threatening and people often lack tangible skills to negotiate these type of conversations (Carter, McNair, Corbin, & Williams, 1999; Zamboni, Crawford, & Williams, 2000). Unclear definitions of what constitutes a sexually transmitted disease, inconsistent use (or nonuse) of barrier methods, combined with individuals' general reluctance to seek and/or disclose sexual health information can have physical, as well as, psychological consequences.

STIs are defined as a variety of infections (e.g., chlamydia, cytomegalovirus, gonorrhea, syphilis) that are contracted through sexual intercourse or other intimate sexual contact (Holmes et al., 1999). In the past, sexual education literature has predominantly focused on improving individuals' levels of knowledge with respect to the spread of STIs and pregnancy. Although increasing young peoples' knowledge regarding sexual health issues is important, knowledge alone does not systematically address the problem. Sexuality education should extend beyond simple biological/physiological explanations of how the human body works because sexuality issues also naturally involve affective processes. In other words, sexual decision making is not always a

rational process. Individuals engaged in intimate sexual activities are not necessarily thinking about safety concerns, physical or emotional, or the consequences of their behavior. Health messages are often based on rational appeals that point to risks and encourage precautionary actions to protect individuals from pregnancy, STIs, and HIV but neglect the affective responses to such messages. This research aims to develop messages that address cognitive and affective processes involved in sexual decision-making by integrating affect into Prospect Theory.

Sexual health messages could be improved by strengthening their theoretical foundations. To this end, negative affect will be incorporated into Prospect Theory, with consideration of guilt, embarrassment, and anger as possible explanations associated with message acceptance. After a review of the sexual health literature will be a discussion of audience segmentation as a tool to help guide theory construction, followed by brief review of four different audience characteristics that may further inform and shape message design in the sexual health realm. Prospect Theory will then be discussed in this literature review along with selected research that highlights its use across different health contexts. The role of negative affect (i.e., guilt, embarrassment, and anger) as it relates to interpersonal and persuasive processes will be addressed leading to an introduction of Message Framing Guilt Appeals Model (MFGAM).

Sexual Health Literature

In 1999, the World Health Organization recommended a change in the terminology of sexually transmitted diseases (STDs) to reflect a more comprehensive one; therefore, a change was made to use the vocabulary of sexually transmitted infections (STIs). The reason for this change is that asymptomatic infections, which are

not expressed as diseases, must be taken into consideration regarding public health action (CAREC, 2001). This subtle change in terminology could also reflect changing norms regarding sexual behaviors and redirect education and prevention efforts to address some of the nonintercourse methods of disease transmission and prevention.

Sexuality education consists of two types of rhetoric, one that is primarily focused on pregnancy prevention; and another that is focused on the prevention and spread of STIs. The major problem associated with this apparent split is the conflicting messages adolescents and young adults receive regarding sexual health behaviors (Lindsay, Smith, & Rosenthal, 1999). For instance, sexuality education that stresses ways in which individuals can avoid becoming pregnant, does not focus much attention on the risk of STI transmission; young people are told if they are going to have sex, to take measures to prevent pregnancy. Unfortunately, many birth control methods (e.g., the pill) do not protect individuals against STIs. This division of educational efforts may propagate harmful and destructive messages by confusing young people and contributing to the belief they should be interested in either preventing pregnancy *or* in protecting themselves from STIs. The two are inherently connected and sexual health messages could be strengthened if the two goals were not talked about in isolation from each another.

In addition to the different types of rhetoric that exist within the sexuality education literature, there are also numerous factors, both individual and societal that influence the sexual decision-making process. Over the years, researchers have worked to identify and tease apart various characteristics that influence young adults' sexual health behaviors. A greater understanding of the processes associated with young peoples'

responses to sexual health messages can lead to more effective campaigns and a decrease in risky behaviors.

Audience Segmentation

Ideally, researchers would like to be able to maximize the impact of particular messages given their respective audiences and audience segmentation is a tool that can help researchers achieve greater message acceptance (i.e., attitudinal and/or behavioral change). In essence, audience segmentation refers to dividing and organizing an audience into smaller groups of people who have similar “information-seeking needs, desires, and motivations” (Rimal & Adkins, 2003, p. 498). One common approach to audience segmentation is the use of demographic information (i.e., age, sex, ethnicity, income level). This approach “is valid insofar and only insofar as the demographic variables are correlated with the antecedent variables” (Slater, 1995, p. 188). The assumption behind this method is that individuals with similar background characteristics may also have other variables (or characteristics) in common with one another. Although the use of demographic information to segment an audience is helpful, it may provide only a cursory portrayal of audience characteristics. However, psychographics can provide a more meaningful way to segment an audience because psychographics can “target audiences by commonalities in their attitudes rather than by commonalities in age, race or educational level” (Trenkner et al., 1990, p. 479).

Slater (1995) noted that the task of audience segmentation “is largely at odds with the elegant, theory-building approaches upon which social scientists are trained and they favor” (p. 192). Theory construction is meant to identify certain key constructs and be applicable across multiple contexts. Audience segmentation seems to contradict the

elegance and parsimony of solid theory building because it clusters individuals into groups (Slater, 1995). Even so, audience segmentation can serve as a tool that can help identify and streamline theory construction. Within a larger theoretical framework, audience segmentation can identify different clusters of individuals, and allow researchers to further examine and test theoretical constructs on seemingly similar people, with nuanced differences, which can lead to theory refinement (e.g., Parrott et al., 2004).

Research in the area of sexuality and sexual health highlights several characteristics of audience members that can be potentially very useful in terms of designing more effective safer sex campaigns. For example, two groups of males may include one group that holds very negative attitudes toward condoms and hence, have never used them; the other group is comprised of individuals who are favorably inclined toward condoms and yet, do not use condoms on a regular basis. A message geared toward the former group requires information that highlights the advantages of condom use and will hopefully, lead to more favorable attitudes toward condoms; whereas, the latter group may require additional research to ascertain why they do not use condoms regularly (i.e., attitude reinforcement *and* behavioral change). In this example, the use of psychographic information, along with demographics, offered a more complete picture of the different clusters of males within the audience, which could potentially aid in the construction of more effective messages. From this example, it is clear there are numerous audience characteristics that could contribute to message design in the sexual health realm. More specifically, individuals' sex (i.e., gender), their overall health orientation, whether they have used protection in the past or not (i.e., users versus non-

users), and relationship status (i.e., casual versus committed relationship) may all contribute to different attitudes and belief systems with respect to sexual behaviors. The next section will expand on each of these.

Sex

The discussion of sexuality and sexual behavior is naturally tied to the biological classifications of *male* and *female*. That is not to say, human sexuality is dictated by our biology; however, it is shaped by it. Research in the sexual health realm has examined gender differences in attitudes about condoms and condom use behaviors and indicates that men and women enter into sexual relationships with differing expectations, attitudes, and habits regarding condom use (Sacco, Rickman, Thompson, Levine, & Reed, 1993). Historically, women have been the ones to bear the burden of reproductive responsibilities (Parrott & Condit, 1996). In addition, because sexual behavior is heavily influenced by emotions, sexual decisions are not always rational. Gender issues further complicate sexual health prevention behaviors. For example, men who initiate the use of condoms are sometimes perceived favorably, as caring and responsible; however, when women initiate condom use they may be perceived as having an STI or insinuate that their partner does (Cline, Johnson, & Freeman, 1992). Also, discussions of condom use between sexual partners focus attention on the relationship and studies have shown that individuals are more likely to use condoms in casual relationships but less likely to use them in more committed relationships (Hammer, Fisher, Fitzgerald, & Fisher, 1996). Additionally, men in their twenties are more sexually active and less likely to use condoms (e.g., Bradner, Ku, & Lindberg, 2000; Buysse, & Ickes, 1999). Notions of sexuality have social, cultural, political, as well as biological roots. Men and women are

socialized differently, and as a result, the sexes develop differing sexual scripts (i.e., implicit and explicit rules of sexual behavior) (e.g., Gagnon, 1990; Maticka-Tyndale, 1991).

According to Simon and Gagnon (1986) sexual scripts guide sexual behavior by defining the situation, identifying the actors, and by plotting out appropriate behavior. Sexual scripting occurs at three different levels: (a) cultural, (b) interpersonal, and (c) intrapsychic (Simon & Gagnon, 1986). At the cultural level, individuals learn about sexuality through collective life (i.e., general frameworks for sexual roles). Interpersonal scripts translate cultural abstractions of sexuality into more context specific scripts (i.e., performance). At the intrapsychic level, individuals learn to mediate multiple goals and desires related to sexuality (i.e., definitions of what the individual wants in a manner consistent with cultural expectations and interpersonal behavior). One of the core assumptions of sexual scripting is that human behavior cannot be understood apart from social group membership (Simon & Gagnon, 1987). Based on how females and males are socialized, often times different social and sexual scripts develop, which subsequently influence sexual decision-making processes.

Health Orientation

How individuals see themselves and others, can help shape and determine their behavioral choices. Individuals who value their health will strive to maintain it and engage in healthy behaviors, compared to individuals who are less concerned about their health. Costa, Jessor, Fortenberry, and Donovan (1996) define health orientation as “a commitment to values and attitudes that emphasize a healthy lifestyle, association with others who encourage and support healthy behavior, and personal involvement in health-

enhancing behaviors” (p. 404). These authors argued that regular and consistent use of contraception minimizes the risk of pregnancy and disease and therefore, may be part of and “predictable from a more general orientation to health” (p. 405). Sexually active individuals, who did not use contraception regularly, reported lower health orientation scores.

In general, in this society people who value their own health, as well as the health of others, and are motivated to stay healthy are likely to be inclined to engage in preventive behaviors (i.e., use of latex barriers for sexual activity). As a result, individuals with strong health orientations may be more likely to attend to messages that advocate such behaviors; whereas, individuals with weaker health orientations may disregard them. Closely connected to the construct of health orientation, is whether or not individuals actually use protection for sex.

Performance of Recommended Response/ Behavior

Previous research has noted the influence of past performance on future behavior (e.g., Ajzen, 1985). In other words, within the context of sexual health, individuals who have used condoms (or other latex barrier methods) in the past are more likely to use them in the future. Some of the common reasons young adults note for not using condoms (i.e., protection) include embarrassment about purchasing condoms or discussing condom use with sexual partners, less favorable attitudes toward condom use, use of another form of birth control and the perception that one is at low risk for any STIs or HIV (e.g., Beckman, Harvey, & Tiersky, 1996; Sacco et al., 1993; Sheeran, Abraham, & Orbell, 1999). Additionally, college students state being in a long-term relationship as a reason for condom nonuse (e.g., Noar, Zimmerman, & Atwood, 2004). Despite these

reasons over time there has been a small percentage (i.e., “from 12% in 1982 to 15% in 1988 and 20% in 1995” according to Piccinino & Mosher, 1998, p. 5) of adolescents and young adults who choose to use condoms, albeit not as consistently as researchers and health educators might like.

Two variables that have been linked to health behavior change are self- and response efficacy (Bandura, 1997). Self-efficacy refers to people’s beliefs in their capability to organize and execute behaviors required to produce a desired outcome (Bandura, 1977, 1986) and response efficacy refers to people’s confidence that following the recommended response will lead to a favorable outcome (or avert an unfavorable outcome) (e.g., Witte, 1992; Wolburg, 2001). Researchers have noted that ‘nonusers’ (i.e., individuals who do not engage in protected sexual behaviors) tend to be less confident in their ability to discuss and use condoms with their sexual partners compared to ‘users’ (i.e., individuals who do engage) (Brien, Thombs, Mahoney, & Wallnau, 1994). It seems that individuals who are already performing the recommended behavior, in this case using protection for sexual behaviors, may differ in terms of perceived self- and response efficacy, compared to individuals who are not (i.e., ‘nonusers’); such differences can lead to more or less risky behaviors. The key for health educators and researchers is to be able to encourage individuals who already perform the recommended behavior(s) to continue their current practices and determine effective ways to reach individuals who are not. We will return to a discussion of self- and response efficacy later. In addition to whether protective measures have been used in the past, the type of partner or relationship (i.e., casual versus committed) has been found to shape decisions to use protection (e.g., Misovich, Fisher, & Fisher, 1997).

Type of Relationship

Safer-sex decisions simultaneously involve both persons in a dyad; the decision to use or not use protection has emotional, as well as physical consequences thereby complicating an already tenuous decision-making process. The simple act of approaching the topic of condom use can be face threatening (Afifi, 1999), elicit a whole host of emotions (e.g., Campbell, Peplau, & DeBro, 1992; Galligan & Terry, 1993) and can vary depending on the type of relationship. More specifically, *relationship type* (i.e., casual versus committed) seems to influence decisions to use or not use protective latex barriers. Such that those individuals in casual relationships are more inclined to use protection compared to individuals who are in committed relationships (e.g., Noar et al., 2004).

For young adults, the terms *main*, *primary* and *steady* are commonly used terms to denote different types of relationships. Within these different types of relationships individuals subsume differing levels of risk, which in turn contributes to the use (or lack thereof) of protection (Misovich et al., 1997; Sheeran et al., 1999). In new partnerships/relationships, individuals are more inclined to use condoms (i.e., barrier methods) due to the tacit acknowledgement of lack of familiarity. Early on in relationships, people tend to use condoms, citing use as a method of birth control rather than disease control (Metts & Spitzberg, 1996; Noar et al., 2004). “If the sexual relationship endures over a period of a few weeks (i.e., a new partner becomes an established partner), condom use may be reduced or stopped” (Katz, Fortenberry, Zimet, Blythe, & Orr, 2000, p. 69). Over time, people may opt to switch to another form of birth control (i.e., the pill) thereby addressing pregnancy prevention concerns but not disease prevention. One reason for this particular trend is that condom use is linked to notions of

trust (Civic, 2000). However, the assumption of exclusivity may falsely reduce perceived risk of STIs (Katz et al., 2000; Misovich et al., 1997).

Related to the notion of trust within relationships is the perceived ability to select a safe partner (Buysse, 1998) and therefore affect decisions not to use condoms. Partner selection is a popular way to protect oneself from STIs. Buysse and Ickes (1999) reported that “partner selection is found to be preferred in 70% to 80% of sexual encounters within stable relationships, and in about half of the sexual encounters within casual relationships” (p. 121). Partner selection relies on the evaluation of a potential partner’s sexual risk history and the ability to accurately and thoroughly communicate safer sex practices with partners. Generally speaking, the longer two people are together, the greater perceptions of trust and partner safety are and thus, a decline in barrier methods of protection is observed (e.g., Civic, 2000, Cline et al., 1992; Wingwood & DiClemente, 1998).

The challenging part for message designers is to consider these different audience characteristics and figure out a way to develop messages that are attuned to these characteristics and yet, are still theoretically grounded to maximize the impact and influence of sexual health messages. Based on the literature, it is clear that individuals’ sex (i.e., male/female), overall health orientation, previous condom use and current relationship status all shape perceptions of sexual health behaviors. What is less apparent is how these variables might work together complementing, contradicting, or substituting for one another in decisions related to sexual health, a highly emotionally charged area.

Emotions

Emotions are a fundamental, powerful, and ubiquitous aspect of social life. Before discussing the effect of emotion on information processing, it is necessary to distinguish between affect, emotion, and mood. Some researchers use these terms interchangeably; however, there is a growing consensus that “affect refers to the general valence of an emotional state, emotion refers to specific types or clusters of feelings that occur in response to particular events, and moods refer to relatively enduring and global states of pleasant or unpleasant feelings” (Guerrero, Andersen, & Trost, 1998, p. 5).

Several different theories of emotions exist that are quite disparate, both within and across disciplines of psychology, physiology, and social psychology. Metts and Bowers (1994) loosely organized theories of emotion into four groups: (a) language analytic approaches, (b) psychosocial theories, (c) psychophysiological theories, and (d) integrative models. In addition to the different theoretical approaches used to investigate emotions, the study of emotion is in itself ambiguous. Some emotions are defined cognitively, others physiologically, and some are defined as a combination of both (Metts & Bowers, 1994). Definitional difficulties in terms of what exactly constitutes an emotional appeal further complicate endeavors to understand this phenomenon in relation to the influence process (Jorgensen, 1998). Some researchers (e.g., Clark, 1984) argue that emotions are an internal state with no inherent message component, whereas, other scholars (see Andersen & Guerrero, 1998) contend that emotions are inherently communicative. The difficulty in distinguishing between an emotional appeal and a logical appeal further clouds the research waters, “as the effect of one is purported to influence the other” (Jorgensen, 1998, p. 404). It is beyond the scope of this research to

discuss the different cognitive and dual-processing theoretical persuasion models; however, the project will provide one attempt to address Dillard's (1998) call for theoretical models that integrate cognition and affect, instead of viewing them as diametrically opposed opposites. Specifically, this project builds on the substantive body of literature associated with guilt, defined as arising from "one's violation of a moral, ethical, or religious code that has been internalized" (Nabi, 1999, p. 299), and embarrassment, which is similar to guilt in terms of the notion of a perceived transgression, but at its core is the sense of social presentation (i.e., feelings of being self-conscious) (Edelman, 1987; Lewis, 2000); and anger, which is "generally elicited in the face of obstacles interfering with goal-oriented behavior or demeaning offences against oneself or one's loved ones" (Nabi, 2002, p. 293). A functionalist approach to emotions will guide the integration of a guilt appeal into message design and highlight the potential impact of guilt and anger on message processing. Darwin's (1872/1965) seminal work on the expression of emotions in humans and animals serves as the foundation for functional emotion theories. Darwin argued that behaviors in response to emotional feelings serve adaptive functions developed through evolutionary processes, which is the basic premise that underlies all functional emotion theories. Even though there is a lot of variation in terms of which emotions features are emphasized, there are four fundamental principles: "(a) Emotions have inherent adaptive functions; (b) emotions are based on events that are personally relevant; (c) each emotion has a distinctive goal or motivation represented in its state of action readiness or tendency to action designed to arouse, sustain, and direct cognitive or physical activity, or both; and (d) emotions are organizers and motivators of behavior" (Nabi, 1999, p. 296).

The functionalist approach may be particularly helpful because message designers can target the appropriate adaptive function associated with a health event; acknowledge that information about STIs may evoke more than a single emotion when the information is personally relevant; target an appropriate action tendency associated with the goal of sexual health; and utilize the motive associated with an emotion to predict behavior. Fear and fear appeals have been utilized and studied extensively as a method to produce attitude and behavior change (e.g., Dillard, 1994; Witte, 1994, 1998; Witte & Allen, 2000). Less attention has been directed toward other negative emotions, such as guilt, embarrassment, and anger, to assess how these different emotions could motivate or inhibit attitudinal or behavioral change. In the context of STIs, it will be argued that guilt, embarrassment, and anger are the three most likely emotions associated with the project aims of increasing awareness and use of condoms for orogenital intercourse. First, guilt, embarrassment, and anger will be defined briefly, followed by a discussion of Prospect Theory and a review of its utility across different health contexts.

Defining Guilt

Several approaches to defining guilt highlight its potential role in promoting behavioral change. Guilt is commonly known as one of the “self-conscious emotions” along with shame, pride and embarrassment. The classification of this family of emotions is based on the premise that these emotions are founded in social relationships, in which people interact, interpret and evaluate themselves and each other (Fischer & Tangney, 1995). There are a few specific situations that elicit the self-conscious emotions of shame, pride, guilt or embarrassment. According to Lewis (2000) “the elicitation of self-conscious emotions involves elaborate cognitive processes that have, at their heart, the

notion of self” (p. 623). However, this description of guilt tends to deny (or ignore) the interpersonal processes that may be associated with the elicitation of guilt and the inherent communicative qualities of emotions, such as guilt (Andersen & Guerrero, 1998).

Guilt is one of the more complex emotions that tends to emerge later developmentally, as opposed to the basic emotions that are clearly expressed and easily identified from infancy, such as anger and happiness (Lewis, 2000). Mascolo and Fischer (1995) discuss the developmental changes in self-evaluative emotions from infancy to adolescence to young adulthood. In other words, as individuals move through the life cycle and their repertoires of personal experience increase, self-evaluation and appraisal processes change and become more complex. Historically, the terms guilt and shame have been used interchangeably, even though the two terms reflect distinct and distinguishable experiences (Tangney, Miller, Flicker, & Barlow, 1996). “Guilt involves some self-perceived shortfall with respect to one’s own standards, where the focus of attention is some particular behavior” (O’Keefe, 2002, p. 329).

The key distinction between guilt and shame is that when guilt is produced, individuals “evaluate their behavior as a failure but focus on the specific features or actions that led to the failure” (Lewis, 2000, p. 629), whereas, shame is focused on the global self (i.e., attack on the self). Shame is a highly negative and painful emotional state. According to Andersen and Guerrero (1998) because the focus of shame is on the self (i.e., feelings of inferiority and low self-worth) it “tends to produce avoidance rather than active communication” (p. 80). The active response to guilt, on the other hand, is to repair the damage, either through engaging the wronged party, and/or some behavioral

change. Both of these emotions serve as indicators to individuals that social bonds have been disturbed or disrupted in some fashion and that reparations may be needed (Lewis, 1981). As a result, message designers may often invoke such emotions in efforts to gain cooperation with prevention and detection practices.

The challenge remains to ascertain how to direct emotional responses in productive ways. Messages that evoke shame seem unlikely to motivate individuals to adopt healthy habits. Messages that evoke guilt may be designed in ways that will direct more positive health practices. Moreover, message framing may be related to health message designers' success. As illustrated by the literature, the affective cousins of guilt and shame are qualitatively different, even though they are often used interchangeably. One of the key distinguishing factors is that shame is an emotional state characterized as more global and an attack on the self, which may lead to confusion and loss of action. As a result, people have trouble dissipating feelings of shame. In contrast, "guilt has a distinctive action-motivating character" (O'Keefe, 2002, p. 330). Guilt may be particularly useful in terms of eliciting behavioral change in this context, in part because of the interpersonal nature of this emotion.

Anticipatory guilt. There are numerous definitions of guilt and researchers have struggled over conceptual definitions of guilt. Rawlings (1970) defined guilt as "a particular type of discomfort either (a) aroused by the anticipation of violating an internal standard of "right" or "wrong" conduct or (b) following an actual transgression" (p. 164); the first is referred to as anticipatory guilt and the second as reactive guilt. Anticipatory guilt results from an individual *contemplating* a potential violation of one's own standard (Coulter, Cotte, & Moore, 1999; Rawlings, 1970). In contrast, reactive guilt is elicited

when one *has violated* one's standard of acceptable behavior. As a result, Coulter et al. (1999) presented a conceptual framework to explain why guilt appeals, and possibly other negative appeals, could be advantageous in advertising and the effects of feelings on behavior.

Anticipatory regret. As mentioned previously, the affective cousins of guilt and shame have been used interchangeably, even though they are qualitatively different. In a similar vein, there seems to be conceptual overlap between anticipatory guilt and regret, respectively. Both of these anticipated emotions seem to concentrate on some type of discrepancy or loss that is the result of a particular behavior. However, guilt seems to focus on a discrepancy or *violation of some code of appropriate behavior(s)*, whereas, regret seems to stem from the possible *loss associated with a decision*. In other words, "regret can be distinguished from guilt in that regret does not involve knowingly violating a standard of behavior. Instead, one experiences regret when dissatisfied with a choice, because a better choice may have been made if more information or other alternatives had been available" (Huhmann & Brotherton, 1997, p. 36).

For example, van der Pligt and Richard (1994) summarized a series of studies that investigated the role of anticipatory regret as a determinant of adolescent sexual behavior. According to Janis and Mann (1977) the term anticipatory regret is a convenient generic term used to refer to the main psychological effects of different worries that plague a decision maker before any losses actually materialize. Richard, van der Pligt, and De Vries (1996) assessed anticipated regret associated with unsafe sex or sexual risk-taking behavior. More specifically, participants were asked to focus on feelings they would experience *after* unsafe sexual practices compared to those who were asked to focus on

feelings *about* the actual behavioral activity itself. Results indicated that individuals who were asked to think about the possible negative implications or feelings that might be associated with unsafe practices (i.e., the *after* unsafe sex condition), actually reported more positive (e.g., safer) behavioral expectations (i.e., more willing to use condoms). According to Frijda (1986) “behavior can be motivated by the anticipation of emotion that could or will occur” (p. 97). As a result, studies that have examined anticipated affect (see Bagozzi, Baumgartner, & Pieters, 1998; Richard et al., 1996) are based on the idea that when individuals are asked to anticipate their post-behavioral feelings, for example guilt or regret, these negative feelings are made salient and seem to influence decisions to take preventive action.

Defining Embarrassment

As already mentioned, embarrassment, guilt, shame, and pride are universally known as the “self-conscious emotions” (e.g., Lewis, 2000). This family of self-conscious emotions is centered on the notion of self. For example, if one has transgressed and can point to a specific event feelings of guilt may be aroused; if one’s global assessment of self is very negative s/he may experience intense feelings of shame, whereas, if someone feels exposed and self-conscious (either real or imagined) s/he may feel embarrassed.

In addition to the conceptual overlap that exists between guilt and shame, according to some emotion scholars there is also some conceptual overlap between shame and embarrassment (e.g., Izard, 1991). According to Lewis (2000) the major distinction between shame and embarrassment is intensity and duration; embarrassment tends to elicit less intense feelings and is shorter in duration compared to shame. However,

because situations that invoke shame can also conjure feelings of embarrassment, it is possible that messages that elicit embarrassment can hinder message acceptance.

Although embarrassment has been a focus of previous research associated with promoting behaviors to attain and maintain sexual health, it has been treated as a barrier to these behaviors, so message design has aimed to reduce feelings of embarrassment. Attempts to reduce feelings of embarrassment are only part of the equation; individuals need tangible strategies, and negotiation skills to reduce feelings of embarrassment when in interpersonal situations. For example, a heterosexual woman may be reluctant to ask a man, with whom she wants to have sex, to use a condom for fear of embarrassment. The request to use a condom may appear face threatening to the man (e.g., “does she think I have something?”) and/or the request may raise suspicions about the woman’s (i.e., the requestor’s) health status (e.g., “if I ask him to use a condom, he may think I have an STI.”) (Galligan & Terry, 1993). In fact, embarrassment may trigger guilt about failure to protect self and other; or these emotions may be elicited simultaneously. Research on condom use and embarrassment has yielded inconclusive findings and as a result there is inconsistent information regarding the effect of or effective use of embarrassment in messages geared toward changing sexual behavior. Discrepant and unclear information concerning the use of embarrassment may be a result of failure to address the relational concerns into messages regarding sexual behavior.

Defining Anger

Anger is an important emotion that is usually undesirable and avoided whenever possible (Izard, 1991). It is an internal emotion reaction characterized by subjective experience (e.g., I feel angry) and physiological arousal (Izard, 1991). Anger can be

experienced separately from other emotional states and it can be experienced in combination with sadness, guilt or fear, just to name a few. Restricting the expression of anger can lead to psychological (i.e., rumination and mental barriers to goal attainment) and physical health problems (i.e., high blood pressure). To gain a better understanding of this negative emotional state, it is important to understand some of the common causes of anger.

According to emotion scholars (e.g., Izard, 1991; Weiner, 1982) anger is the result of some type of pain, whether it is physical pain (i.e., stubbed toe) or mental pain (i.e., fatigue, mental stress). The emotion of anger is aroused when individuals are faced with obstacles that impede goal attainment or when faced with demeaning offenses against oneself or a loved one (Nabi, 2002). From a functionalist approach, anger serves an adaptive purpose (i.e., remove obstacle and obtain goal). A few studies have found that a positive relation exists between anger and attitude change (e.g., Nabi, 1998a as cited in Nabi, 2002). For example, when anger is intentionally induced, there appears to be a positive relation between anger and the intended outcome. On the other hand, when anger is not intentionally induced, there is a negative correlation. For example, unintentionally induced anger in a negative appeal, such as a guilt appeal, can negatively impact attitude change.

In sum, the examination of emotion literature associated with guilt, embarrassment, and anger reveals that the focus has been on individuals' responses and possible relational ramifications, but a gap exists in linking these emotions to such behavioral outcomes as self- and response efficacy, and behavioral intentions. Will guilt serve as an 'emotional bridge' to repair and change attitudes and behaviors, or will it

operate similar to anger and embarrassment and serve as an ‘emotional barrier’ to message processing and acceptance? One way to address this question is to combine the use of a guilt appeal with a pre-existing theoretical structure.

Prospect Theory can potentially be very useful in constructing safer sexual health messages by integrating the related audience variables described earlier and negative affect (i.e., guilt, embarrassment, and anger). This particular theory has been applied across different health behaviors, with varying success. Individuals do not experience and process messages via just cognitive or just affective routes. In fact, researchers in advertising (Homer & Yoon, 1992), communication (Dillard & Peck, 2001; Pfau et al., 2001) and social psychology (W. Parrott, 2001) have stated that additional research is needed to integrate and examine the role of emotions on message processing. As a result, this research attempts to integrate negative affect into Prospect Theory. First, the basic tenets of the theory will be outlined.

Prospect Theory

Researchers, physicians, and health practitioners all have a vested interest in framing health information effectively to elicit compliance and/or the adoption of healthy behaviors. Previous research within the health domain and more broadly, in the area of social influence, indicates that the way a message is framed affects the amount of persuasion it elicits (e.g., Kahneman & Tversky, 1979; Rothman & Salovey, 1997). One theoretical perspective that has illuminated message framing effects on persuasion is Prospect Theory.

Prospect theory was originally developed as an axiomatic, descriptive model of decision-making under risk. According to Kahneman and Tversky, (1979) “decision

making under risk can be viewed as a choice between prospects or gambles” (p. 263). In other words, this theory provides a model for understanding decision making under conditions of uncertainty. The theory suggests that risk-taking decisions are strongly influenced by the perceived costs of not taking the risk.

According to the framing postulate of Prospect Theory, individuals will respond differentially to factually equivalent information presented or “framed” as either a potential gain or a potential loss. Based on this value function, people tend to avoid risks (i.e., risk-averse) when ascertaining gains but prefer risks (i.e., risk-seeking) when considering losses. Gain messages highlight potential benefits or advantages of an outcome (or behavior); whereas, loss messages highlight the potential risks or disadvantages associated with an outcome. In essence, people evaluate information regarding uncertain (i.e., risk) alternatives in terms of potential gains or potential losses, and changing the way the information is presented can alter people’s preferences. For example, if a physician wants a patient to change a health behavior, such as the adoption of regular and consistent condom use for all types of sexually intimate contact, how the message (i.e., request) is framed can influence whether the patient complies with the doctor’s orders or not. The physician could emphasize the potential benefits of consistent condom use (i.e., gain frame) or stress the negative effects of not using condoms (i.e., loss frame). A wide body of health literature examines theoretical concepts and effects of message framing.

Theoretical Explanations

The basic premise of prospect theory is that positively (i.e., gain) framed messages can highlight the attainment of desirable outcomes or avoidance of undesirable

outcomes, and negatively (i.e., loss) framed messages either emphasize the presence of undesirable or the absence of desirable outcomes. Based on previous literature, at least three theoretical explanations have been offered regarding the relative effectiveness of different message frames. First, the level of perceived risk associated with performing a health behavior is critical. Researchers (e.g., Rothman & Salovey, 1997) note that the persuasiveness of a message depends on the risk associated with performing a particular health behavior. For example, a message advocating the importance of HIV-testing may be perceived as more risky than one that focuses on the adoption of a low-fat diet. As a result, a loss-framed message more than a gain-framed message may be more persuasive for the behavior that has a higher level of perceived risk. According to Broemer (2002) when levels of perceived risks are not salient, gain-framed messages are more effective because they highlight the benefits of engaging in the recommended behavior. Rothman, Martino, Bedell, Detweiler, and Salovey (1999) argue that the effects of message framing are contingent on individuals' perceptions of risk associated with the adoption of the recommended behavior. In their research, they varied the message frame and the type of behavior (i.e., prevention versus detection) via two experiments, one with a hypothetical disease and the other with a real health problem, gum disease. In the gum disease experiment, participants who read the loss-framed message felt more at risk for developing gum disease if they continued their current hygiene practices than those who read the gain-framed message. Findings from both of the experiments provided support for the notion that gain-framed messages are more effective for preventive behaviors and loss-framed appeals are more effective for detection behaviors.

A second line of research has highlighted the role of cognitive elaboration and involvement in discussing the effectiveness of message frames. People may not always be inclined to scrutinize health information either because they are not concerned about taking preventive actions or they underestimate their personal risk (Jemmott, Ditto, & Croyle, 1986). Some research has illustrated that negatively framed information is more persuasive when issue involvement is high, in contrast to positively framed information when issue involvement is low. For example, Maheswaran and Meyers-Levy (1990) varied perceptions of individuals' involvement with an issue and message framing on subsequent behavior change. Individuals in the high involvement condition were lead to believe they were at risk for coronary heart disease and therefore would engage in detailed processing of the message. As a result, those in the high involvement, loss-framed message condition viewed the message as more persuasive than individuals in the low-involvement, gain-framed condition. However, there are discrepancies regarding message framing and cognitive elaboration.

Several studies have shown that when people are inclined to process information in detail, positively framed messages are more persuasive than negatively framed ones (e.g., Wegener, Petty, & Klein, 1994). It is possible that there are other factors (e.g., perceived effectiveness of the health recommendation, health orientation, self- and response efficacy) that mediate the influence of involvement, above and beyond positive and negative framing. Unfortunately, within the context of sexual health and condom use, the lines tend to blur. Adolescents and young adults tend to minimize the level of perceived risk regarding sexual activity (Perloff, 2001). Rothman and Salovey (1997) suggested that individuals who have not practiced safer sex may be reluctant to admit the

dangers associated with such practices and hence become defensive, which in turn, can impede the processing of a loss-framed message that highlights the negative consequences of not using condoms. As a result, a gain-framed message, which emphasizes the benefits of condom use, could be more persuasive (Rothman & Salovey, 1997). However, Rothman and Salovey (1997) note that because condom use may potentially involve important social or sexual risks (e.g., risk of insulting partner), if “people consider condom use a sexual behavior rather than a health behavior, a loss-framed message might be more effective” (p. 11).

A third theoretical explanation regarding the relative effectiveness of different message frames is the notion of individuals’ pre-existing perceptions of a health issue. More specifically, individual’s pre-existing perceptions or experience with a particular health issue may influence the construction of perceived personal risk and willingness to comply with advocated behaviors (see Rothman & Schwarz, 1998). Thus, the three explanations advanced around prospect theory have demonstrated that a high involvement issue, such as sexual health and well-being, may not be as simple and straightforward as originally outlined by Kahneman and Tversky (1979). Sexual behavior is heavily influenced by emotions, which may interfere with rationale decision making (Fisher, 1984), and as a result the message framing literature within the context of sexual health, could be extended and strengthened by incorporating affective responses/processes on message effects.

The area of sexual health and more specifically, disease prevention naturally encompasses STIs and HIV. However, encouraging individuals to obtain HIV-testing is inherently different from advocating condom use. In other words, according to Prospect

Theory, because HIV-testing is a risk-seeking activity, the test increases the probability of identifying a serious health threat and as a result, a loss-frame should be more effective than a gain-frame message when advocating HIV-testing. For example, Kalichman and Coley (1995) posited that matched gender and ethnicity of the source to the target population would enhance message effects for a personalized loss-framed message regarding HIV-testing. Results revealed that the personally relevant loss-framed message did increase intentions and behaviors related to HIV antibody testing, but did not increase intentions or behaviors related to condom use. In contrast to HIV-testing, condom use is a preventive behavior and decisions around regular and consistent condom use are related to perceptions of future risk. For instance, the decision to not use a condom is seen as a risky behavior and a loss-framed message might actually undermine condom use. As a result, gain-framed messages, which highlight the potential benefits of a particular action, could be more effective.

Linville, Fischer and Fischhoff (1993) investigated individuals' intentions to use condoms by using a different consequences framing manipulation. They described a particular brand of condoms as having either a 90% success rate versus a 10% failure rate and asked individuals whether manufacturers should be allowed to advertise this brand as an effective way to reduce the risk of AIDS, and would they use this brand of condoms. Results revealed that when the condom was described in terms of its success rate, participants were more likely to show support for the advertisement as well as intentions to use them (Linville et al., 1993). The underlying notion behind both regular HIV-testing and condom use is to ultimately decrease the transmission of infections (i.e., either HIV and/or other STIs). Previous research in this area of sexual health, has laid the foundation

for the effectiveness of loss-framed messages for HIV-testing and of gain-framed messages concerning condom use.

Health Applications

Individuals might be sensitive to whether a behavioral alternative is framed in terms of its associated benefits and costs, and practically all health-related information can be construed in terms of either benefits or costs. The literature on message framing and health behaviors reveals that neither gain- nor loss-framed messages are consistently more persuasive across health behaviors (Rothman & Salovey, 1997). In addition to the theoretical explanations mentioned, there are several reasons for these inconsistent findings. One explanation is that the *type* of health behavior being promoted influences the overall persuasiveness of the message. Generally speaking, health behaviors serve one of three functions: (a) to prevent the onset of a health problem, (b) to detect early signs and development of a health problem, or (c) to cure or treat an ongoing health issues (Rothman & Salovey, 1997; Salovey, Schneider, & Apanovitch, 2002). For example, regular and consistent use of condoms can prevent the spread of sexually transmitted infections, breast self-examinations (BSE) can potentially detect a cancerous tumor, and chemotherapy or radiation treatments can shrink a cancerous growth.

Evidence supports the notion that people respond differently to gain- versus loss-framed messages depending on whether the target behavior is prevention or detection (e.g., Rothman, & Salovey, 1997). More specifically, gain-framed messages appear to be more effective for prevention behaviors, such as sunscreen use (Detweiler, Bedell, Salovey, Pronin, & Rothman, 1999), smoking cessation (Wilson, Wallston, & King,

1990) and infant car restraints (Treiber, 1986). The implicit assumption with prevention behaviors is that they are less risky, compared to detection behaviors, where individuals run the risk of discovering unwanted news about their health (Rothman, Salovey, Antone, Keough, & Martin, 1993).

As mentioned, detection behaviors can be construed as risky because performing such behaviors can provide information about the presence or absence of a potentially undesirable health outcome. For example, Meyerowitz and Chaiken (1987) had female participants read pamphlets regarding breast self-examinations (BSE) that were either framed in terms of the benefits (i.e., gain) of engaging in BSE or the costs (i.e., loss) of not engaging in BSE. They found that the loss-framed messages were more persuasive than the gain-framed messages, which led to more positive attitudes toward BSE and greater intentions to perform BSE at a four-month follow-up.

Another possible explanation for some of the discrepancies in findings regarding message framing may be due to measurement issues. Rothman & Salovey (1997) argue that the operationalization of the concepts of uncertainty, risk, loss, and gain – are rather straightforward in formal tests of prospect theory; however, “it is much more difficult to operationalize such terms when the theory is integrated into practical health recommendations” (Finney & Iannotti, 2002, p. 5). Relatedly, none of the research on Prospect Theory has used guilt as an explanation for framing effects’ outcomes. In fact, Prospect Theory has ignored affect, which could help explain some of the contradictory findings regarding message frames. As such, this research will integrate the use of a guilt appeal with Prospect Theory, and highlight the role of guilt, embarrassment and anger as possible explanations associated with message acceptance. Before continuing, a review of

the literature on guilt, embarrassment, and anger as it relates to interpersonal and persuasive processes will be provided.

Guilt and Persuasion

Generally speaking, the empirical research on guilt and persuasion can be broken down into two major areas: (a) guilt arousal in interpersonal relationships, and (b) guilt appeals in persuasive messages, which also include studies of hypocrisy induction.

Guilt Arousal in Interpersonal Relationships

Baumeister, Stillwell, and Heatherton (1994) noted that guilt serves various functions that are advantageous to interpersonal relationships, such as motivating people to treat partners well, maintaining equity and redistributing emotional distress. Additionally, O’Keefe (2002) states that “people seek to arouse guilt in others primarily for purposes of influence – as a means of inducing the target to undertake some action, refrain from some action, or stop some ongoing action” (p. 330). Vangelisti, Daly, and Rudnick (1991) conducted a series of four studies to explore the role of social interaction in eliciting guilt. First, they inductively developed a typology of ways in which people make others feel guilty. Most participants did not have trouble recalling a time when they were made to feel guilty or had made others feel guilty, highlighting how often feelings of guilt are aroused in conversations. Furthermore, feelings of guilt are typically produced in close relationships; these feelings are generally not engendered among strangers. The second study investigated techniques used to create guilt in conversations and results supported the 12-category typology developed in study 1. For example, the most common techniques for eliciting guilt were stating relationship obligations, describing the nature of things and articulating sacrifices made. The last two studies

further tested the typology and the underlying structure of a measure designed to tap individuals' tendency to induce guilt.

Baumeister, Reis, and Delespaul (1995) were interested in investigating the subjective correlates of guilt and suggested that such a comparison would shed light on factors that are central in producing guilt. They found that relatively mild feelings of guilt are quite pervasive, and that guilt can be thought of as an action control mechanism. More specifically, guilt may “function to interrupt certain responses and prevent them from being carried out” (Baumeister et al., 1995, p. 1265). In addition, feelings of guilt were linked to high levels of uncertainty. Guilt and message framing could work in concert to increase the persuasiveness of messages. For example, individuals tend to want to avoid risks when ascertaining gains. If a gain-framed message is combined with guilt content, which can serve to increase individuals' levels of uncertainty, they might be more inclined to reduce these unsettling feelings and follow the recommended behavioral response.

According to the study conducted by Vangelisti et al. (1991) most participants indicated that they used guilt as a persuasive tactic. Thus, research associated with guilt arousal in interpersonal relationships suggests that the design of health messages associated with STIs might link caring for one's partner, responsibility for the health and wellness of each person in the relationship, and appropriateness of behavior to help individuals adopt preventive health behaviors. One study that attempted to encourage individuals to seek STI testing through the use of a more relationally focused (i.e., care for partner) health message was conducted by Hullett (2004). Hullett examined the functional theory of attitudes

and guilt arousal as a means to motivate young adults to get tested for genital herpes. He found that individuals in the benevolent message condition (i.e., stressed the importance of testing to protect partner's health) reported greater intentions toward testing than individuals in the self-interested condition (i.e., highlighted the importance of testing for one's own health). The findings of this study highlight the potentially powerful role of guilt to influence attitudes and ultimately behavior. The next section will detail the components of a guilt appeal and further expand on why this type of negative appeal may be advantageous for sexual health messages.

Guilt Appeals in Persuasive Messages

Guilt appeals are comprised of two parts. The first component of a guilt appeal must induce guilt by highlighting some inconsistency between the receiver's standards and the receiver's action; then the second part describes the message's recommended viewpoint or action, which serves to reduce guilt (Coulter & Pinto, 1995; O'Keefe, 2002). Previous research on guilt appeals illustrates that more explicit guilt appeals arouse significantly greater guilt than less explicit guilt appeals; unfortunately, more explicit guilt appeals are also less persuasive than less explicit guilt appeals (O'Keefe, 2000 as cited in O'Keefe, 2002, p. 331) perhaps owing to the arousal of competing emotions, such as anger. Given that greater levels of guilt arousal do not necessarily enhance the persuasiveness of the message, it seems plausible that messages that elicit a certain level or threshold of guilt (i.e., moderate feelings of guilt) may improve the persuasive effects of a message. Additional work is needed to determine how to construct and utilize guilt appeals that arouse moderate levels of guilt.

According to Baumeister et al. (1995) “transgressions or other actions that could jeopardize valued relationships should be most likely to produce guilt” (p. 1257). This statement highlights the potentially influential role of guilt in developing messages to advocate behavioral change. Generally speaking, relational partners do not like to feel guilty or feel that they have hurt their partners (i.e., transgressed in some fashion). In addition, recognition of individuals’ shortcomings by others often produces embarrassment, anger and reactance. There has been little research that has focused specifically on the persuasiveness of guilt in interpersonal relationships (O’Keefe, 2002).

Previous research in the sexual health realm indicates that there are numerous barriers to regular and consistent condom use. For instance, Campbell et al. (1992) found that both males and females report feelings of embarrassment that inhibit condom use. Embarrassment, similar to shame, may cause individuals to draw inward as compared to guilt, which generally motivates individuals to make amends or repair the damage done to a relationship. Generally speaking, individuals can experience several, sometimes contradictory, emotions at once (e.g., happiness for a victory *and* sadness that a deceased loved one could not be present), and what triggers different emotional responses in people varies.

Researchers across disciplines continue to wrestle with how to best direct emotional responses in productive ways. Further exploration of negative appeals may provide some insight to attitudinal and behavioral changes. There are numerous ways to arouse guilt in interpersonal relationships. For example, one can indicate “that the target is not meeting some obligation that is part of the target’s relationships with the influencer” (O’Keefe, 2002, p. 330). However, since many young people do not think of

oral sex as ‘sex’ (Centers for Disease Control and Prevention, 2000; Remez, 2000) and because sex education and prevention efforts have typically centered on vaginal intercourse, young people may not see the need or use of protection for oral sex. In other words, failure to use protection during this nonintercourse activity does not translate into failure to meet some obligation, and as a result, no guilt is elicited. On the other hand, if a message contains a guilt appeal, that highlights the two components: (a) an inconsistency in one’s personal standards and subsequent feelings of guilt, followed by (b) the recommended response to alleviate the guilt (i.e., use of protection), then individuals may be able view lack of protective behaviors as a failure to meet some obligation (i.e., to protect one’s health and/or the health of her/his partner), which can lead to a change in their future behaviors.

A message that employs a guilt appeal highlights some sort-of transgression or violation. In the case of a sexual health message, the choice to *not* use protection represents a failure to protect one’s own health, as well as the health of one’s partner. As a result, contemplation of the decision to *not* use could arouse guilt and lead individuals to adopt the proposed behavior (i.e., to use protection in the future). It could, however, cause embarrassment, anger and reactance. According to Brehm’s (1966) theory of psychological reactance, when individuals feel as if their personal freedoms are threatened or taken away, individuals will be motivated to protect or restore their sense of freedom. Restricting individuals’ freedoms can lead to a “boomerang effect,” (i.e., increase the restricted behavior) (S. Brehm & J. Brehm, 1981). How messages are framed and the type of appeals used, can elicit or dampen feelings of psychological reactance.

Emotions can be experienced on physiological, as well as, cognitive levels. Anger is one of the primary emotions exhibited early on, whereas embarrassment and guilt emerge later developmentally. Within the context of sexual health messages, given the slightly different affective developmental trajectories and general expressions of anger, embarrassment, and guilt, it seems possible that when young adults are presented with a sexual health message that restricts their perceived sense of freedom (i.e., restricting pleasure), feelings of anger and psychological reactance may be aroused. Additionally, by drawing attention to the type of behaviors relational partners ‘should’ engage in versus what individuals are actually doing could (i.e., discrepant self-image) cause embarrassment. Even though both anger and guilt can serve to motivate individuals into action, the *direction* of action may vary. In sum, anger and embarrassment may inhibit message processing (i.e., obstacle, psychological reactance and lowered feelings of self-worth); whereas guilt may motivate individuals to accept the message and change their behaviors (i.e., make reparations). For example, Leary and Dobbins (1983) found that the more embarrassed individuals are by the prospect of obtaining contraception, the less likely they are to use contraception during sexual activity. Due to the fact that there is little research on the use of negative appeals, other than fear, this project will concentrate on the use of a guilt appeal, in conjunction with message framing, to assess how this type of negative appeal may trigger feelings of guilt, embarrassment, and anger, and influence message acceptance.

An Alternative Explanation for Message Framing: Guilt Appeals

The Message Framing Guilt Appeals Model (MFGAM) is advanced as an alternative of how people respond to guilt appeals, addressing both the cognitive and

affective components associated with message processing. For this project, sexual health is the context in which this descriptive model will be examined, but it could be applied to other health related behaviors (i.e., prevention, detection, treatment) where dyadic or relational cooperation is required (e.g., preparing meals for a diabetic partner or cancer survivor, driving safely, etc.).

Emotions may be related to norms and values, modes of interaction, and cognitions (Frijda, 1986). As such, this model can be applied across health and interpersonal contexts. The model applies to interpersonal influence situations in which failing to adopt a behavior being promoted violates an accepted code of conduct. Social and cultural dimensions can guide behavior and highlight ‘transgressions’ and subsequent responses.

As mentioned previously, one of the basic tenets of prospect theory is that individuals will respond differently to factually equivalent information based on how the information is presented. People are risk-averse when information is framed in terms of potential gains and people are risk-seeking in their preferences when presented with potential losses. Previous literature on message framing has highlighted the effectiveness of gain-framed messages for preventive health behaviors and the effectiveness of loss-framed appeals for detection health behaviors (Rothman & Salovey, 1997).

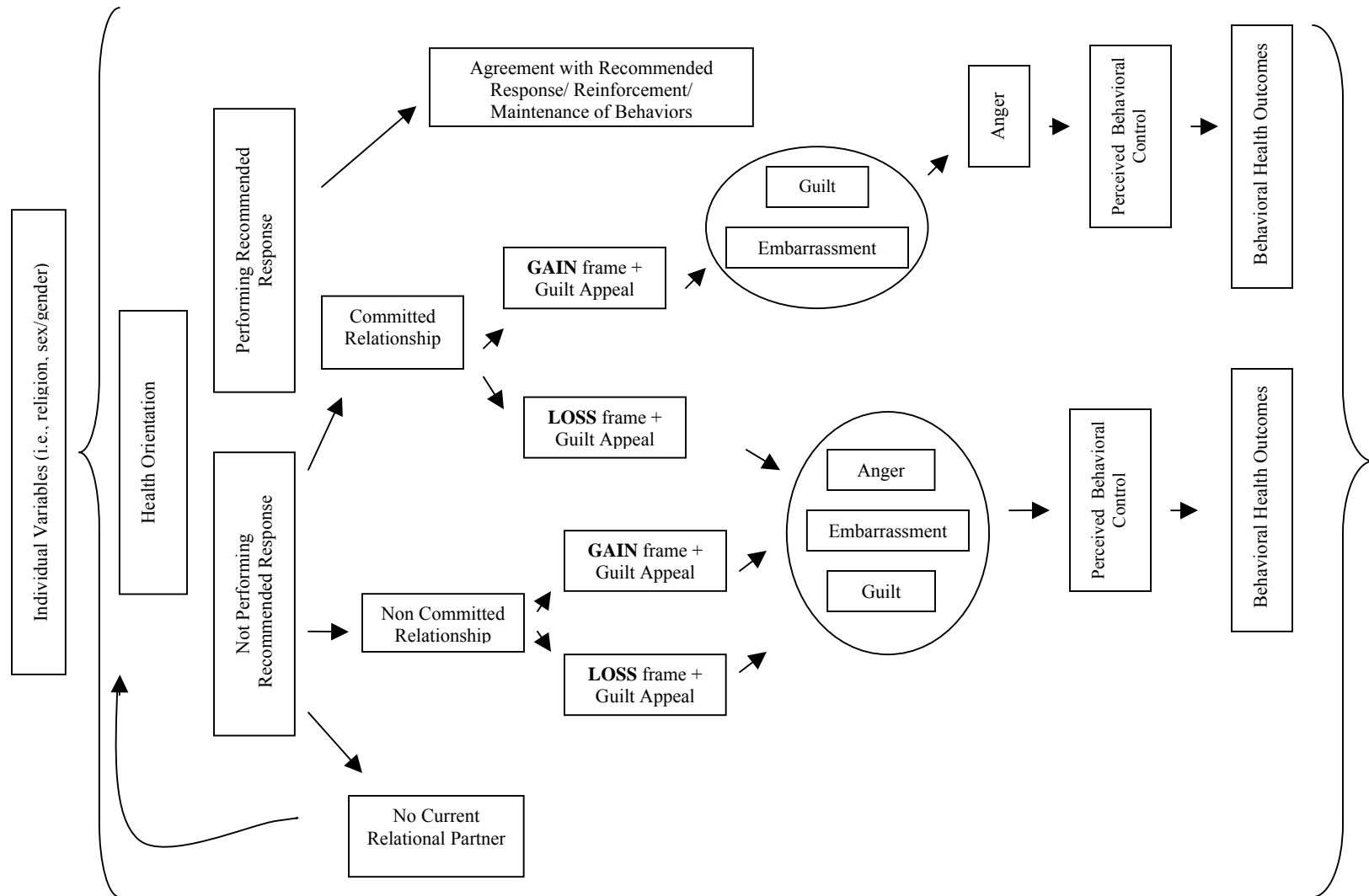
Unfortunately, the theoretical waters of message framing are not always so clear.

The literature on message framing has generally compared the effects or effectiveness of a gain- versus loss-framed message, without much attention to underlying processes. Instead of comparing and contrasting the different types of frames, this research attempts to examine the processes by which individuals respond to gain- and

loss-framed messages when combined with a negative appeal (i.e., guilt appeal). As such, this project is descriptive in nature; it is not a comparative analysis of the different message frames. According to the MFGAM, individuals will either receive a message that is positively framed (i.e., highlights the potential gains associated with a recommended behavior) or negatively framed (i.e., emphasizes the potential losses associated with not carrying out the recommended behavior). Individuals exposed to a gain-framed guilt appeal message should respond differently than individuals exposed to a loss-framed guilt appeal. In part because different message frames could elicit an assortment of emotional reactions, which in turn, can influence message processing.

Message Framing Guilt Appeals Model (MFGAM)

Figure 1: The Message Framing Guilt Appeals Model (MFGAM)



Definitions

Sex. As mentioned earlier, sexual scripts are learned through socialization and some researchers would argue that men and women come from different social groups and as a result, may develop different sexual scripts. Researchers have noted gender differences in attitudes about condoms and usage, for example, such that men and women enter into sexual relationships with differing expectations, attitudes, and habits regarding condom use (Sacco et al., 1993). Differences in men's and women's attention to diet (e.g., Furnham, Badmin, & Sneade, 2002), safety (e.g., Harris & Miller, 2000), and other realms suggest the importance of gender in explaining the effects of guilt appeals in health practices.

Health Orientation. Individuals' psychological tendencies can shape and impact their physical health (Snell, Johnson, Lloyd, & Hoover, 1990; 1991). Health orientation has been found to encompass ten different concepts related to individuals' well-being. Two of the categories, motivation for healthiness and motivation to avoid unhealthiness seem to have the most direct bearing on predictions associated with affect and message framing. In addition, two categories were created to capture how individuals: (a) value their own health, and (b) value the health of others (i.e., sexual partners). Individuals' disposition toward their own health and the health of others may influence decision-making processes and the course of related health action.

Performance of Recommended Response/ Behavior. Researchers have often debated the role of past behavior on present performance and some suggest that "past performance of a behavior exerts an influence on present behavior that is independent of

behavioral intentions, attitudes, or subjective norms” (Ajzen, 1985, p. 34). Within the sexual health realm, for example, because ‘users’ have taken protective measures in the past, they may attend to and process a message geared toward safer sex (i.e., it reinforces their attitudes and behaviors) differently than ‘nousers.’ As a result, a general assessment of whether individuals have ever performed the recommended behavior (i.e., used protection during oral sex) will be obtained.

Type of Relationship. The relationships individuals form with others can influence their attitudes and behaviors. For example, social networks, such as parents, peers, romantic partners, etc. may all serve as influential agents in attitude formation and behavioral choices (e.g., Berkman, 1995; Ford, Wirawan, & Muliawan, 2002). Within the sexual health realm, there are differences in condom use for different types of relationships. More specifically, individuals in casual relationships, or ‘early daters’ (e.g., Wingwood, & DiClemente, 1998) are more likely to use latex barrier methods (i.e., condoms) compared to individuals in committed relationships. Therefore, it is important to ascertain the type of relationships individuals are involved in.

In addition to assessing the type of relationships individuals are involved in, it is also necessary to measure individuals’ levels of mutual commitment, which is one characteristic associated with close relationships. Mutual commitment is defined as “the degree to which partners are both invested in maintaining the association” (Knobloch & Solomon, 2003, p. 487). Categorical data about the *type* of relationship provides one level of information. Participants who report they are in a ‘committed, exclusive relationship’ will be asked to answer questions on the *intensity* of mutual commitment as additional

measure of the closeness of the relationship. In other words, when individuals report they are in ‘committed, exclusive relationships’ there is an expectation that the relationship will continue into the future. The relational partners cultivate joint expectations and parameters of the relationship, which can be ascertained by assessing mutual commitment.

The reason for measuring both the *type* of relationship *and* the level of mutual commitment for individuals in committed, exclusive relationships stems from the notion that guilt can serve as a motivating emotion that is generally experienced in close relationships. For individuals in non-committed relationships, guilt may not be a particularly powerful or motivating emotion *because* they are less committed to the relationship.

Message Framing. A gain-framed message highlights the potential benefits of a particular behavior/action, whereas, a loss-framed message emphasizes the potential costs of not adhering to the prescribed behavior. Individuals will respond differently to factually equivalent information, based on how it is framed (e.g., Rothman & Salovey, 1997).

Guilt Appeal. A guilt appeal is defined as a persuasive message that attempts to arouse the emotion guilt by depicting a personally relevant and significant *transgression* and then follows this description of the transgression by outlining recommendations presented as feasible and effective in reducing/deterring the transgression (see O’Keefe, 2002). Efficacy is defined as the “effectiveness, feasibility, and ease with which a recommended response impedes or averts a threat” (Witte, 1994, p. 114). There are two

sub dimensions of efficacy, self- and response efficacy. Self-efficacy captures individuals' beliefs in their ability to organize and execute behaviors required to produce a desired outcome (i.e., skill level). Response efficacy is the belief that the recommended behavior will yield desired outcomes. For example, regular and consistent condom use will reduce one's chances of contracting an STI.

Guilt. Guilt is an internal emotional reaction characterized by subjective experience (e.g., I feel guilty) and physiological arousal (Izard, 1991). The emotion guilt is aroused when a serious and personally relevant transgression is perceived. In other words, when an individual feels that s/he has violated some internalized moral or ethical code, s/he will feel guilty.

Embarrassment. Embarrassment is an internal emotion that involves a discrepant self-image (i.e., one's current perception of self versus one's desired presentation of self) and a sense of being exposed to the scrutiny of others (Edelman, 1987). Individuals can feel embarrassed whether an event (e.g., transgression, accident, etc.) happens in front of an audience or not; meaning, one can feel embarrassed and experience a heightened sense of self-consciousness whether the audience is real or imagined.

Anger. Anger is an internal emotional reaction characterized by subjective experience (e.g., I feel angry) and physiological arousal (Izard, 1991). The emotion of anger is aroused when individuals are faced with obstacles that impede goal attainment or when faced with demeaning offenses against oneself or a loved one (Nabi, 2002). Additionally, people may become angry when they feel as if a personal choice or freedom has been restricted (e.g., Burgoon, Alvaro, Grandpre, & Voulodakis, 2002). A

message that induces guilt about acting irresponsibly coupled with a loss-framed message that stresses the dangers of not protecting one's self and partner, may elicit anger and subsequent reactance in individuals, which in turn, may lead to rejection of the message.

Rarely do emotions occur in isolation of one another. As a result, the negative emotions of guilt, embarrassment, and anger were selected for inclusion in this project for several reasons. First, the affective cousins of guilt and embarrassment, as mentioned previously, share some similarities. The sexual health literature has superficially highlighted the role embarrassment in messages. Feelings of embarrassment, for example, may hinder message processing and the enactment of safer sex behaviors. The decision to include guilt was based on research in the social influence and interpersonal domains. Guilt is typically felt and experienced in close relationships and can be used as a persuasive tool. Anger was selected because of the likelihood of co-occurrence of feelings of embarrassment and anger. For example, if people are embarrassed and made to feel exposed, the heightened sense of visibility (either real or imagined) could infuriate individuals. Within the context of sexual health, individuals do not like to be told what to do or feel as if their personal freedoms are being restricted. Exposure to safer oral sex messages may sound restrictive and potentially irritate audience members. Based on the sexual health literature and the potentially sensitive and stigmatizing nature of the context, guilt, anger, and embarrassment were relevant emotions to investigate.

Guilt Appeals and Message Framing

In addition to message frames, message-induced affect might jointly influence people's attitudes toward and compliance with the advocated preventive health behavior.

Therefore, this model proposes a role for message-induced affect, more specifically, guilt, embarrassment and anger, on message acceptance. Previous research on guilt appeals, similar to the research on fear appeals, has highlighted the curvilinear relation between levels of elicited guilt and persuasiveness. For instance, high and low levels of guilt arousal are less effective than moderate amounts of guilt. Therefore, it is important to determine message characteristics that induce moderate feelings of guilt, regardless of message frame. The combination of a gain-framed message that highlights the benefits of regular and consistent condom use, coupled with the elicitation of moderate amounts of guilt should lead to message acceptance and the recommended behavioral response.

In contrast, negatively framed information when combined with guilt content in the message will stress the potential drawbacks of not following the advocated behavior and in turn, could trigger anger and reactance to the message. Once again, sexual activity between two consenting adults has implications for both parties. If individuals are presented with a message that induces feelings of guilt and also highlights the negative (i.e., loss-frame) consequences of their irresponsible behavior, other negative thoughts and emotions may be triggered. The elicitation of other negative emotions, such as anger, fear, embarrassment, regret and shame may interfere with message processing and ultimately cause individuals to reject the message. For example, according to reactance theory (Brehm, 1966) individuals do not like to have their personal freedoms taken away. Anger, like guilt, is thought to be an action-motivating emotion; however, the perceived loss of choice may elicit anger, which in turn, may cause people to completely ignore the message. If the combination of loss-framed information, plus guilt does not anger

individuals, it may cause them to feel ashamed and embarrassed over previous careless behaviors. Returning to the literature on emotions, embarrassment is a more global and internally directed emotion, which may paralyze individuals. In sum, the combination of a loss-frame message that also induces feelings of guilt may arouse other negative emotions, which may hinder the persuasiveness of the message.

Perceived Behavioral Control

Related to whether individuals have performed the recommended behavior(s) previously or not is the notion of perceived behavioral control. Originally, perceived behavioral control (PBC) was added to the Theory of Reasoned Action (TRA) as an additional determinant of intent (Ajzen, 1985, 1991). According to Ajzen (1991) perceived behavioral control “refers to people’s perception of the ease or difficulty of performing the behavior of interest” (p. 183). Perceived behavioral control was added to TRA to capture behaviors that are not completely under volitional control. For instance, it could be argued that the use of protection (i.e., latex condoms or dental dams) is a behavior that is not completely under one person’s control because the act of using a barrier method is contingent on both persons agreement to use it. Therefore, as volitional control over a behavior declines, the addition of perceived behavioral control should be useful in helping predict behavior (Ajzen, 1991).

Behavioral Health Outcomes

Research focused on attitude and behavior change has highlighted the important roles of self- and response efficacy, and actual and procedural knowledge on intentions to

perform recommended behaviors. Generally, change happens with time and these constructs can work in concert with one another to produce change.

Self-Efficacy

Self-efficacy is defined as individuals' beliefs in their ability to organize and execute behaviors required to produce a desired outcome (Bandura, 1977). In other words, self-efficacy refers to a person's perceived ability to carry out the recommended course of action. A number of studies have utilized the concept of self-efficacy to examine a wide range of health topics, practices, and behavior modification (see Strecher, DeVellis, Becker, & Rosenstock, 1986). For example, Wulfert and Wan (1995) reported that self-efficacy was significantly related to college students' intentions to use condoms. Additionally, self-efficacy has been found to be influential in predicting a woman's likelihood of asking sexual partners about intravenous drug use history, homosexual involvements, as well as actual condom usage (Hale & Trumbetta, 1996).

Response Efficacy

Response efficacy refers to "an individual's beliefs as to whether a response effectively prevents the threat" (Witte, 1992, p. 332). Individuals not only have to believe they have the ability to perform a particular behavior; they must also be able to see the purpose of performing it (i.e., the recommended behavior will lead to a positive outcome or avert a negative one). Regarding the use of protection for oral sex, for example, young adults must believe that the act of using some form of protection for oral sex can actually decrease their chances of contracting an STI. If individuals cannot see the utility of the following the recommended response, they will be less likely to adhere to it.

Actual Knowledge

The English philosopher Francis Bacon coined the saying “knowledge is power,” unfortunately, there is not always a direct correlation and behavior (e.g., Baldwin & Baldwin, 1988). Messages need to be factually accurate and the more engaging the message, the more likely the audience is to retain the information (R. Parrott, 1995). The presentation of a narrative of an exclusive heterosexual couple and the subsequent oral-to-genital transmission of an STI could make the issue more salient to individuals thereby aiding in the retention of the information.

Procedural Knowledge

Procedural knowledge represents how individuals apply specific knowledge given a particular task. In other words, procedural knowledge refers to the mechanics of a particular behavior (i.e., ‘how to’). In the case of sexual health information, for example, individuals may know that consistent condom use can lower their chances of catching an STI (i.e., actual knowledge), but individuals must also know how to use condoms (e.g., the accurate and effective way to place a condom on, the type of lubricant that will not compromise the integrity of a latex condom or dental dam, etc.). Individuals, who know *how* to use protective methods, should be more inclined to use protection compared to individuals who have less procedural knowledge (i.e., experience).

Behavioral Intentions

Research illustrates the prominent roles of self- and response efficacy, and perceived behavioral control in predicting goal-directed behavior (e.g., Manstead, & van Eekelen, 1998; Roberto, Meyer, Johnson, & Atkin, 2000). Behavioral intentions refers to

whether individuals are motivated to behave in ways that will reduce their risk (i.e., avert a threat, alleviate guilt). When individuals hold strong efficacy beliefs (i.e., believe they have the ability *and* that following the recommended response will result in a favorable outcome) and believe that they have control over their actions, they are more likely to engage in the advocated behavior.

Reinforcement/ Maintenance

Individuals who already perform the recommended behaviors (i.e., individuals who have used protection for oral sex) regardless of the message frame and the guilt content should not experience the same degree or type of negative affect. Instead, these individuals should perceive a message that advocates behaviors that they are already performing as reinforcing.

Application of MFGAM to Oral sex.

Historically, education and prevention programs have focused primarily on vaginal-penile intercourse for a number of different reasons. As discussed earlier, the sexuality education literature is split into two different schools of thought – one that is focused on pregnancy prevention, the other on the prevention and spread of STIs. If education and prevention programs adhere to addressing pregnancy prevention concerns only, then there is no need to concentrate on other nonintercourse acts. In addition, human sexuality is multilayered and influenced by cultural, social, and moral norms. From a Christian standpoint, individuals should not engage in sexual behaviors outside of marriage and sexual intercourse should be for procreation. Anal and oral sex are not mentioned explicitly in the Bible, but there are many references to the notion of sexual

immorality, which are open to interpretation. However, failure to address sexual health and protective behaviors related to nonintercourse acts has serious consequences.

Anal and oral sex are both considered taboo topics by some and have received minimal attention compared to traditional safer vaginal sex messages. Oral sex is the least risky sexual behavior compared to vaginal or anal (greatest risk) sex, and this type of nonintercourse behavior eliminates pregnancy concerns. However, changing sexual norms may cause sexual health researchers to redirect prevention efforts. Adolescents seem to be engaging in a variety of sexual behaviors and there is anecdotal evidence to suggest that there has been an increase in the number of adolescents engaging unprotected oral sex (Remez, 2000). Not surprisingly, since young people contend that oral sex is not “real sex,” it “is therefore a moral option for the unmarried” (Stafford, 2004).

Evidence indicates that people are resistant to the use of condoms for vaginal sex for a number of different reasons (e.g., lack of availability, embarrassment, negative connotations associated with condoms, etc.) (e.g., Beckman et al., 1996; Galligan & Terry, 1993). Hence, a similar challenge probably exists around the topic of barrier methods (i.e., condoms, dental dams, saran wrap) for oral sex. Nonetheless, the novelty of the topic provides a unique context to assess the use of guilt appeals with message framing in regards to safer oral sex behaviors.

There are a multitude of variables that contribute to individuals' behavioral choices. The sex of the individuals involved (i.e., male/female), their overall health orientation (i.e., how they value their own health status, as well as their partners), prior

use of protective measures and the type of relationship they are involved in all play a role in sexual decision-making processes. In addition to these different audience characteristics, the combination of message and framing and a guilt appeal can further determine affective and attitudinal responses to the messages.

Based on the literature, individuals who have used protection in the past are expected to react more favorably to sexual health messages that advocate the use of protection when compared to individuals who have not used protection. Therefore, the following hypothesis is proposed:

H1: After controlling for health orientation and intensity of relational commitment, individuals who have used protection for oral sex in the past (i.e., users) will report: (a) greater intentions to use, (b) be more efficacious (i.e., the mechanics of using), (c) note higher response efficacy, (d) reinforcement of attitudes, (e) be less embarrassed and (f) less concerned about partner's disapproval than individuals who have never used protection (i.e., nonusers) regardless of how the message is framed.

RQ1: Will men and women differ in their responses?

There are many characteristics that help define and classify close relationships (i.e., emotional attachment, need fulfillment, intimacy, etc). College students typically define close relationships as dating or romantic relationships (Guerrero, Andersen, & Afifi, 2001) and tend to engage in serial monogamy (e.g., Noar et al., 2004). As already discussed, condoms are less likely to be used in committed relationships, in part due to an assumed level of trust and exclusivity. As such, introducing the notion of using protection

for oral sex may elicit a host of different responses. According to MFGAM, for individuals who are ‘nonusers’ and in committed relationships, exposure to a gain-framed guilt appeal message may increase the likelihood to use protection in the future, because these individuals care about their partners. The message is presented in such a way that highlights the benefits of engaging in a particular behavior (i.e., to use protection for oral sex), combined with a guilt appeal (i.e., through the use of fictional characters) and because they are in committed relationships, guilt may be triggered and motivate individuals adhere to the recommended course of action in the future. As a result, individuals in committed relationships who are ‘nonusers’ and are exposed to a gain-framed guilt appeal message it is predicted that:

H2: A positive health orientation and intense commitment to the relationship will increase feelings of guilt, resulting in (a) high levels of actual and procedural knowledge, (b) elevated perceptions of perceived behavioral control, (c) of self and response efficacy, and (d) of behavioral intentions related to use of protection for oral sex.

RQ2A: Do men and women differ in their responses to gain-framed guilt appeals?

RQ2B: For individuals in committed relationships, does anger or embarrassment have an effect on these responses?

The combination of a loss-framed guilt appeal message may cause individuals in committed relationships to experience a mix of emotions in response to the message. Once couples have already established patterns of behavior they may be difficult to change. A loss-framed message guilt appeal that highlights one’s failure to protect one’s

own health, as well as the health of her/his partner, may cause individuals to simultaneously experience guilt and anger, and subsequently, reactance, which could cause a boomerang effect (i.e., rejection of the message). Therefore, for ‘nonusers’ in committed relationship who are exposed to a loss-framed guilt appeal message it is predicted that:

H3: A positive health orientation and intense commitment to the relationship will increase feelings of guilt, anger and embarrassment resulting in (a) high levels of actual and procedural knowledge, (b) reduced perceptions of perceived behavioral control, (c) of self and response efficacy, and (d) a decrease in the likelihood of behavioral intentions to use of protection for oral sex.

In a similar vein, *because* guilt is a persuasive tactic that is most often used and experienced in close relationships, the use of a guilt appeal may not be as effective for non-committed individuals. People in casual relationships typically do not have the same level of caring and trust as individuals in committed relationships. For example, one-night stand encounters are based on the notion of never seeing one another again, which can embody less interest or care in protecting the other (i.e., “out for myself, who cares about her/him”). As a result, the use of a guilt appeal in messages geared toward non-committed individuals may trigger mixed feelings of anger and guilt, and interfere with message processing. Therefore, for ‘nonusers’ in non-committed relationship, regardless of the message condition, it is predicted that:

H4: A positive health orientation and intense commitment to the relationship will increase feelings of anger, embarrassment, and decrease feelings of guilt

resulting in (a) high levels of actual and procedural knowledge, (b) reduced perceptions of perceived behavioral control, (c) of self and response efficacy, and (d) a decrease in the likelihood of behavioral intentions to use of protection for oral sex.

Chapter 2

METHOD

Overview of Methods

The proposed test of the Message Framing Guilt Appeals Model (MFGAM) was attained through the design and implementation of four phases: (1) formative research, which consisted of focus group discussions, to aid in the revision and development of messages, (2) instrument development and assessment, (3) a pilot study to evaluate messages (i.e., message frames and presence of a guilt appeal), and (4) a college-based study in which participants were randomly assigned to conditions to analyze the model.

Formative Research

Participants

The purpose of this formative research was to explore young adults' perceptions of norms regarding sexual health and protective behaviors, as well as the types of attitudes or behaviors that would elicit guilt. A total of nine focus groups were conducted. Data from two of the focus groups (one same-sex female group and one mixed-sex group) had to be discarded due to technical difficulties. As a result, all subsequent analyses were based on seven focus groups (3 same-sex male groups, 2 same-sex female groups, and 2 mixed-sex groups). Participants were 31 female and 33 male undergraduate students enrolled in communication classes at a large northeastern university, however due to the loss of two of the focus groups, all subsequent analyses were based on data from fifty-two participants ($n_{female} = 22$; $n_{male} = 30$). Seventeen percent of the sample was freshman, 43.7% sophomore, 25% junior, 10.9% senior, and 3.1% did not respond.

Students received extra credit for participation in this study. The size of the individual focus groups ranged from five to nine members each and the length of time for each ran from thirty-five to sixty minutes.

Procedures

Four undergraduate (i.e., two females, two males) students served as moderators for the focus groups. The two female undergraduates were assigned to moderate the same-sex female and the mixed-sex focus groups, the male undergraduate moderators conducted the same-sex male groups. Training involved three sessions where the moderators met with the principal investigator to discuss the objectives of the focus groups, review and modify the moderators' question script and practice the data collection procedures (i.e., the lay-out of the room, check batteries, sign-in sheets, etc).

Upon arrival to the communication research lab, participants were greeted by a moderator, asked to sign-in and given name tags to help facilitate conversation. They sat at a rectangular table in the center of the room. Before the focus group began, a note was posted on the laboratory door, which stated that a focus group was in session and to please not disturb; this was done to prevent participants from being disrupted by late comers.

Focus Group Script and Questions. The focus group moderator script and question guide (see Appendix A) included a brief introduction and description of the research goal. For example, "As mentioned, the purpose of this focus group is to explore young adults' perceptions of relationships and personal codes of conduct regarding sexual behavior. Please keep in mind that there are no "right" or "wrong" answers and

that anything said during this focus group discussion remains confidential – that is – we ask that you agree to *not* discuss or repeat what is said in this room to others.” After the introduction, consent forms were distributed (see Appendix B). All participants were reminded that the focus groups were going to be audio-taped. Once consent forms were collected, participants were asked to complete a brief questionnaire that contained demographic items (i.e., sex, education level, sexual orientation, type of relationship currently involved in, etc.) (see Appendix C). Before the actual discussion began, participants were asked to move into an adjoining room to view an advertisement on a computer. At this point, the moderators were instructed to mention to participants that “if *for some reason* you feel incredibly anxious and do not wish to participate, as we move from this room to the next, please discretely excuse yourself.” This was a non-threatening way to allow participants to quietly and discretely change their minds and resign from participating; no one opted out of any of the focus groups.

Participants viewed an ad from the web page *White Bedroom* (e.g., <http://whitebedroom.com>). This web site is a joint effort of the MAC AIDS Fund and the Elton John AIDS Foundation that contains a series of different advertisements as well as educational material and statistics regarding sexual health. Two different advertisements were used as stimulus material, depending on the sex make-up of each group. The same-sex female and mixed groups viewed an advertisement with a female source, the singer/songwriter Shirley Manson, who posed the question “what do you WORRY about when having sex?” The same-sex male groups viewed an advertisement with a male spokesperson, Elton John, who asked “what EXCUSE do you use?” Both of these

advertisements highlight commonly held beliefs and assumptions regarding protection. They were selected as stimulus material to help ease participants into a discussion of sexual behaviors and codes of conduct regarding sexual health. After viewing one of the two advertisements, participants moved back into the laboratory and the tape-recorder was turned on to record the discussion. Participants were asked a series of questions related to the advertisement, such as “what did you think about this ad,” “how does this ad make you feel,” “did this ad change your mind about condoms,” and “do you think you would change your behavior, in terms of using condoms, after watching this ad?”

Next, participants were asked a series of questions that focused on three general topics: (a) personal codes, (b) personal patterns of behavior, and (c) relationships. For example, “what are your thoughts on personal codes of conduct regarding sexual behavior?” The moderators were trained to probe and clarify questions for participants, such that if no one answered the previous questions, a moderator would interject with the following statement “when I talk about ‘personal codes of conduct’ I really mean, your standard of behavior – that is, your own personal sense of morals or ethics with regard to your sexual behavior.” Additional sample questions were: “if you are involved in a physically intimate relationship with someone, what types of behaviors or conduct would make you feel guilty,” if participants were hesitant to respond, the following probe was used “okay, let’s think of it this way...and *you* [italicized for emphasis] can fill in the blank... ‘if I were involved in an intimate relationship, I would feel guilty *if*...’”

Participants were also asked to answer questions about their use or nonuse of protection for vaginal and oral sex, respectively and if they did not use protection for

either, would they feel guilty for not using protection. Furthermore, participants were asked what types of implicit and explicit rules exist in sexual relationships, whether they varied depending on the level of commitment or the type of relationship. Following the set of relationship questions participants were asked to read a message. All focus groups received a message (see Appendix D) that contained some statistical STIs rates and tried to highlight the idea that individuals can be carriers and asymptomatic, which in turn can place others at risk. As a result, individuals should use protection when engaging in oral sex. Participants were asked to read and review a second (i.e., clinical) message (see Appendix E), if time permitted. Participants were asked to respond to a similar set of questions like those posed at the beginning of the focus group regarding the stimulus material (i.e., on-line advertisement). For example, “how did the message make you feel,” “what kinds of emotions did you feel when reading this message,” “what are your impressions of this message,” “how would you change this message” and “how would you improve this message?” At the conclusion of each focus group, participants were thanked for their time and participation.

Data Analysis

The focus group audiotapes were not transcribed verbatim. The principal investigator met with each moderator after every focus group to discuss emergent themes and impressions. The investigator then went through and listened to the tapes for each group and recorded fragments from the discussions. The goal of this analysis was to gain a greater understanding about how young adults talk about the notion of protection, both

for vaginal and oral sex, the types of behaviors that might elicit feelings of guilt, as well as feedback regarding the written message.

Data were broken down into four general areas: (a) general knowledge about oral sex, (b) notion of the use of protection for oral sex, (c) behaviors that would elicit guilt and (d) responses to the messages.

Results of Formative Research

Focus group discussions centered around four broad topic areas. The first category of topics centered on young adults' knowledge regarding oral sex and the possible risks involved with this nonintercourse behavior. Repeatedly, participants noted lack of familiarity or little knowledge about oral-to-genital transmission. In essence, young adults seem to be relatively naïve about the effects of unprotected oral sex.

The second category, which was closely related to the first, was resistance toward the idea of using protection for oral sex. Once again, because participants seem to categorize oral sex as having minimal risk associated with it, there seemed to be no need for protection. Also, participants noted feelings of awkwardness or embarrassment regarding the use of protection for oral sex. Additionally, males appeared to be more resistant to appeals to use protection, compared to females.

A third general topic area focused on the types of behaviors that would elicit guilt (i.e., what type of behaviors would make you feel guilty?). Cheating on a partner was mentioned most often as an event that would arouse guilt. Consistent with the sexual health literature, rarely did participants consider themselves 'at risk' for contracting or

transmitting a STI. In other words, participants did not mention the idea of “passing” or “contracting” a STI as an event that would elicit guilt.

The final category of topics centered on participants’ responses/ reactions to the messages (see Appendices D & E). Based on participants’ comments, neither message seemed to invoke anger or guilt (e.g., “heard it all before”). However, participants did note that it would be helpful to hear about an actual couple, as opposed to just statistical information about STIs. Over and over again students stated that if they ‘knew someone personally’ or could relate to a couple that had this happen to them, then they might think twice about using protection for oral sex.

Instrument Development and Assessment

Participants

The purpose of a second phase was to develop and assess the survey instrument. More specifically, the goals of second phase were to check for message clarity, the overall effectiveness of experimental materials and data collection procedures to promote the validity and reliability of the study. One hundred and seventy-three undergraduate students enrolled in communication classes at a large northeastern university received extra credit for participation in this study. Participants represented various ethnic and racial backgrounds (72.8% Caucasians, 13.3% Asians, 3.5% African American, 2.9% Latinos/Latinas, 4.0% noted ‘Other,’ and 3.5% unreported). Age of participants ranged from 18 to 38 years ($M = 19.98$; $SD = 2.73$). Education levels varied from freshmen (29.5%), sophomore (26.6%), junior (17.3%), senior (17.9%), and ‘Other’ including super seniors (i.e., fifth year) (8.7%). Forty-two percent reported that they were involved

in a committed, exclusive relationship, 24.3% noted casually dating multiple people, 17.3% reported casually dating one person, 6.4% were in committed, non-exclusive relationships, 1.2% indicated they were not dating and 8.7% did not report relationship type.

Design for Instrument Assessment

A 2 (sex: male, female) X 2 (message content: oral, vaginal) between subjects posttest message design was used for the instrument development phase. The messages that male and female participants received were essentially the same except for the titles of each and the use of pronouns to reflect heterosexual dating relationships (see Appendices F-I for samples of the messages used in the second phase). Participants were exposed to one message that was manipulated to contain information regarding either oral- or vaginal intercourse. Within each sex condition, participants were randomly assigned to a message condition using a random numbers table.

The purpose of having multiple messages (i.e., males received either a vaginal or oral sex message; same for women) was to be able to collapse across sex and increase power. Unfortunately, the vaginal and oral sex messages were too dissimilar, which would negate the ability to collapse conditions. As a result, for the final study only messages that centered on oral sex were used (see Methods for Study for additional detail).

Survey Instrument

The first part of each questionnaire packet was ordered in the following way: (1) pre-test (e.g., knowledge and sexual health history questions); (2) message; (3) open-ended questions; (4) message induced affect; (5) message clarity and comprehension; (6) framing manipulation and (7) message content. The remainder of the questionnaire contained items that measured: attitude towards condoms, condom embarrassment scale, guilt and anger regarding condom use, relational transgressions, condom use self-efficacy, and condom use response efficacy, and behavioral intentions. The last page of the survey contained items to assess demographic information.

Measures for Instrument Development

The primary purpose of this study was to complete manipulation checks for message clarity, affect, including guilt, anger, fear, embarrassment, and shame and focus of the message content (i.e., oral versus vaginal intercourse). The Statistical Package for the Social Sciences (SPSS) version 11.5 was used for all analyses.

Message clarity. The instrument development phase assessed message clarity by asking two open-ended questions about participants' understanding of message content (e.g., what information is missing/included that made it hard for you to understand the message, and, what suggestions do you have to help design better messages?). Clarity was also assessed by five questions measured on 5-point semantic differential scales that asked whether the information in the message was *well explained* or *unclear*, *supported* or *unsupported*, *technical* or *straightforward*, *understandable* or *confusing*, and *helpful* or *not helpful*. Items to measure message clarity were included to demonstrate that all the

messages are understandable and equally clear in their use of language and organizational structure.

Message framing. The instrument development study did assess the framing of each message; however, the messages that were included in this phase only contained positively framed information (i.e., gain-frame). The participants were asked whether the information in the message emphasized the potential *benefits* or *potential costs*, *positives* or *negatives*, *potential gains* or *potential losses*, and the *advantages* or *disadvantages* of particular behaviors.

Message induced affect. The different emotions elicited by the message were assessed by asking two open-ended questions about participants' feelings regarding the message (e.g., "What feelings did you have after reading the message?" and "what thoughts did you have after reading the message?"). Affect was also assessed by fourteen questions measured on 5-point semantic differential scales that asked whether the information in the message made participants feel *calm* or *anxious*, *afraid* or *unafraid*, *angry* or *content*, *guilty* or *guilt-free*, *embarrassed* or *comfortable*, *ashamed* or *arrogant*, *blameworthy* or *innocent*, *prideful* or *humble*, *fearful* or *fearless*, *responsible* or *irresponsible*, *concerned* or *carefree*, *hopeful* or *hopeless*, *compassionate* or *unfeeling*, and *relief* or *constricted*.

Message content. The directness of the message content was assessed. More specifically, participants were asked what *type* of sexual activity the message focused on. For example, "I think the information in the message focused on" and participants were

asked to check either “oral intercourse (i.e., oral-to-genital contact)” or “vaginal intercourse (i.e., vaginal-penile penetration).”

Condom embarrassment. The condom embarrassment scale was comprised of 4 items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) (Vail-Smith, Durham, & Howard, 1992). Respondents were asked to rate the following statements: (a) I would be embarrassed if a new partner insisted that we use a condom, (b) I am embarrassed or would be embarrassed to tell my partner during foreplay that I am not willing to have sexual intercourse unless we use a condom, (c) I am embarrassed or would be embarrassed about being prepared and providing a condom during lovemaking if my partner did not have one, and (d) I am embarrassed or would be embarrassed about talking to my partner about my thoughts and feelings about condom use. The alpha reliability for this scale was .74.

Guilt regarding condom use. Guilt regarding condom use was assessed via 11 items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The items for this scale were based on the condom embarrassment scale and were designed to assess feelings of guilt regarding protective behaviors. Respondents were asked to rate the following statements: (a) I feel guilty because I did not use a condom last time I had vaginal intercourse, (b) I feel guilty because I did not use a condom last time I had oral sex, (c) I feel like I acted irresponsibly by not using a condom last time I had vaginal intercourse, (d) I feel like I acted irresponsibly by not using a condom last time I had oral sex, (e) I am an irresponsible sexual partner because I do not use condoms regularly, (f) I feel like I am an irresponsible sexual partner because I do not use condoms for oral sex,

(g) I feel like I am an irresponsible sexual partner because I do not use condoms for vaginal intercourse, (h) I feel like a responsible sexual partner because I consistently use condoms for vaginal intercourse, (i) I feel like a responsible partner because I consistently use condoms for oral sex, (j) I do not feel guilty for not using condoms, and (k) I see no reason to feel guilty for not using condoms. The alpha reliability for this scale was .81.

Anger regarding condom use. The survey instrument contained six items that measured anger regarding condom use on a Likert-type scale (1 = strongly disagree, 5 = strongly agree). The items for this scale were based on the condom embarrassment scale and were designed to tap feelings of anger regarding protective behaviors. Respondents were asked to rate the following statements: (a) I would feel really angry if a sexual partner insisted we use a condom for oral sex, (b) I would feel really angry if a sexual partner insisted we use a condom for vaginal sex, (c) the thought of using condoms for oral sex makes me angry, (d) the thought of using condoms for vaginal sex makes me angry, (e) I am happy to use condoms for oral sex, and (f) I am happy to use condoms for vaginal sex. This scale yielded an alpha reliability of .76.

Relational transgressions. The relational transgressions scale was comprised of five items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Respondents were asked to rate the following statements: (a) I feel like I have broken an “unwritten” relational rule by insisting my partner and I use condoms for oral sex, (b) I feel like I have broken an “unwritten” relational rule by insisting my partner and I use condoms for vaginal sex, (c) I feel like I have broken an “unwritten” relational rule by

not requesting my partner and I use condoms for oral sex, (d) I would be offended if a sexual partner asked me to use a condom for oral sex, and (e) I would be offended if a sexual partner asked me to use a condom for vaginal sex. The alpha reliability for this scale was .47.

Condom use self-efficacy. Sixteen items were used to assess condom use self-efficacy, which was measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) (Brien et al., 1994). Example items included: “I feel confident in my ability to put a condom on myself or my partner,” “I feel confident in my ability to use a condom correctly,” and “I would not feel confident suggesting using condoms with a new partner because I would be afraid s/he would think I have a sexually transmitted infection.” One of the original items (e.g., “I feel confident I could gracefully remove and dispose of a condom when we have intercourse”) was double-barreled (Fowler, 1993); and therefore, broken-down into two separate items (e.g., “I feel confident I could gracefully *dispose* of a condom when we have intercourse,” and “I feel confident I could gracefully *remove* of a condom when we have intercourse.”). The alpha reliability for this scale was .79.

Response efficacy. The survey instrument contained six items that measured response efficacy regarding condom use on a Likert-type scale (1 = strongly disagree, 5 = strongly agree) (e.g., van Empelen, Schaalma, Kok, & Jansen, 2001). Respondents were asked to rate the following statements: (a) I think consistent use of condoms during sexual activity is an excellent way to prevent the spread of STIs, (b) I think consistent use of condoms during sexual activity is an excellent means of contraception, (c) I believe

that regular condom use during oral intercourse can prevent the spread of STIs, (d) I believe that regular condom use during oral intercourse can decrease the spread of STIs, (e) I believe that regular condom use during vaginal intercourse can prevent the spread of STIs, and (f) I believe that regular condom use during vaginal intercourse can decrease the spread of STIs. The alpha reliability for this scale was .79.

Behavioral intentions. Intentions to use condoms was assessed by 6 items measured on a 5-point Likert scale, where one will be *strongly disagree* and five will be *strongly agree* (e.g., Gagnon & Godin, 2000; van Empelen et al., 2001). Example items included: “I will use a condom next time I have vaginal intercourse,” “I will use a condom next time I have oral sex,” “I will tell my partner to use a condom every time I have vaginal intercourse.” Cronbach’s alpha for this scale was .77.

Results of Instrument Development and Assessment

Factor Analysis

Each individual scale was factor analyzed (i.e., principal axis factoring with varimax rotation) to investigate the underlying scale structures. The following criteria was applied in decisions to retain an item: (a) factor loading of .50 or greater; (b) no secondary factor loading exceeding .30; (c) loading on a factor with a minimum of two items; (d) theoretically interpretable; and (e) factor's eigenvalue exceeds 1.0 (Comrey & Lee, 1992). As noted in the section on *Design for Instrument Assessment* (see p. 61), participants received a message that either focused on vaginal or oral sex, but the messages were too dissimilar to be able to collapse across sex. Even though the vaginal sex content message was dropped for the final study, for the *Instrument Development and*

Assessment phase analyses (i.e., reliabilities and factor analyses) were run on all of the items (i.e., both vaginal and oral sex),

Condom Embarrassment.

The four-item condom embarrassment scale was factor analyzed and revealed a one-dimensional structure that accounted for 43.5% of the variance. The alpha reliability for this scale was .74.

Guilt Regarding Condom Use.

Items for the guilt regarding condom use scale were based on the condom embarrassment scale and a factor analysis was conducted to assess the structure of the scale. Application of the above criteria to the initial analysis of the 11 guilt regarding condom use items contributed to the elimination of three items. Based on the final analysis of the remaining eight items, a three-factor solution emerged as the most parsimonious structure for guilt regarding condom use, accounting for 47.4% of the variance.

Guilt regarding oral sex. The first factor, labeled “Guilt Regarding Oral Sex” accounted for 31.6% of the variance and was comprised of three items (e.g., “I feel like I acted irresponsibly by not using a condom last time I had oral sex,” “I feel like I am an irresponsible person because I do not use condoms for oral sex,” and “I feel guilty because I did not use a condom last time I had oral sex”). Reliability analysis resulted in a Cronbach coefficient alpha = .84

Guilt regarding vaginal/general sex. The second factor labeled “Guilt Regarding Vaginal/General Sex,” accounted for 9.6% of the variance and was comprised of three

items (“I feel guilty because I did not use a condom last time I had vaginal intercourse,” “I feel like an irresponsible person because I do not use condoms for vaginal intercourse,” and “I am an irresponsible sexual partner because I do not use condoms regularly”). Reliability analysis resulted in a Cronbach coefficient alpha = .77.

No guilt. The third factor labeled “No Guilt,” accounted for 6.2% of the variance and was comprised of two items (e.g., “I do not feel guilty for not using condoms,” and “I see no reasons to feel guilty for not using condoms”). Reliability analysis resulted in a Cronbach coefficient alpha = .61. As mentioned previously, the two message conditions (i.e., vaginal versus oral) were too dissimilar and as a result, only messages that focused on oral sex were used for the final study. Additionally, only items that specifically referenced oral sex were retained.

Anger Regarding Condom Use.

The six item anger regarding condom use scale was factor analyzed and revealed a two-dimensional structure that accounted for 50.8% of the variance.

Anger regarding vaginal sex. The first factor, labeled “Anger Regarding Vaginal Sex” accounted for 38.1% of the variance of was comprised of three items (e.g., “the thought of using condoms for vaginal sex makes me angry,” “I would feel really angry if a sexual partner insisted we use a condom for vaginal sex,” and “I am happy to use condoms for vaginal sex”). Reliability analysis resulted in a Cronbach coefficient alpha of .73.

Anger regarding oral sex. The second factor, labeled “Anger Regarding Oral Sex,” accounted for 12.7% of the variance and was comprised of three items (e.g., “the

thought of using condoms for oral sex makes me angry,” “I would feel really angry if a sexual partner insisted we use a condom for oral sex,” and “I am happy to use condoms for oral sex”). Reliability analysis resulted in a Cronbach coefficient alpha = .71. The messages in the final study were geared toward safer oral sex, therefore only items that explicitly referenced oral sex were retained.

Condom Self-Efficacy Scale

Application of the above criteria to the initial analysis of the 15 condom self-efficacy items contributed to the elimination of three items. Based on the final analysis of the remaining 12 items, a four-factor solution emerged as the most parsimonious structure for attitudes, accounting for 65.8% of the variance.

Partner's disapproval. The first factor, labeled “Partner’s disapproval accounted for 32.4% of the variance and was comprised of five items. Example items included: (a) “I would not feel confident suggesting using condoms with a new partner because I would be afraid s/he would think I have a sexually transmitted infection” and (b) “If I were to suggest using a condom to a partner, I would feel afraid that s/he might reject me.” Reliability analysis resulted in a Cronbach coefficient alpha = .86. Table 1 provides a summary of the rotated factor loadings for the Partner’s Disapproval factor.

Intoxicants. The second factor labeled “Intoxicants,” accounted for 10.8% of the variance and was comprised of three items (e.g., “I feel confident that I would remember to use a condom even after I have been drinking”). Reliability analysis resulted in a Cronbach coefficient alpha = .71. (see Table 1 for a summary of the rotated factor loadings for the *Intoxicants* factor).

Mechanics 'after.' The third factor, labeled “Mechanics ‘After,’” accounted for 7.6% of the variance and was comprised of two items. As previously mentioned, one of the items from the original scale was double-barreled and therefore, was separated into two distinct items. Even though these two items fall under the general dimension regarding the mechanics of how to use a condom, more specifically they refer to how to remove and dispose of a condom after use. Cronbach’s alpha for this scale was = .75. Table 1 provides a summary of the rotated factor loadings for the Mechanics ‘After’ factor.

Mechanics 'use.' The fourth factor, labeled “Mechanics ‘Use,’” accounted for 4.4% of the variance and was comprised of two items (e.g., “I feel confident in my ability to put a condom on myself or my partner,” and “I feel confident in my ability to put a condom on myself or my partner quickly”). Reliability analysis resulted in a Cronbach coefficient alpha = .81. (see Table 1 for a summary of the rotated factor loadings for the *Mechanics ‘Use’* factor).

Response Efficacy

The six item response efficacy scale was factor analyzed and revealed a one-dimensional structure that accounted for 40.0% of the variance. The alpha reliability for this scale was .79.

Behavioral Intentions

A factor analysis was conducted on the four behavioral intention items, which resulted in a two-factor structure that accounted for 72.3% of the variance.

Behavioral intentions for vaginal sex. The first factor, labeled “behavioral intentions for vaginal sex” accounted for 52.3% of the variance of was comprised of two items (e.g., “I will use a condom next time I have vaginal intercourse,” and “I will tell my partner to use a condom every time I have vaginal intercourse”); ($\alpha = .84$).

Behavioral intentions for oral sex. The second factor, labeled “behavioral intentions for oral sex” accounted for 19.9% of the variance of was comprised of two items (e.g., “I will use a condom next time I have oral sex,” and “I will tell my partner to use a condom every time I have oral sex”); ($\alpha = .83$). Once again, the final study only contained messages that referenced oral sex and as a result only items that referred to oral sex were included.

Table 1. Factor Loadings for Factor Analysis Condom Self-Efficacy – Instrument Development.

Factor	PD	I	MA	MU
I would not feel confident suggesting using condoms with a new partner because I would be afraid s/he would think I have a sexually transmitted infection.	.73	-.14	-.01	.06
If I were to suggest using a condom to a partner, I would feel afraid that s/he might reject me.	.71	-.18	-.27	-.09
If I were unsure of my partner's feelings about using condoms, I would not suggest using one.	.72	-.13	.05	-.06
I would not feel confident suggesting using condoms with a new partner because I would be afraid s/he would think I've had a past homosexual experience.	.58	-.07	-.00	-.02
I would not feel confident suggesting using condoms with a new partner because I would be afraid s/he would think I thought they had a STI.	.90	-.10	-.11	-.15
I feel confident that I would remember to use a condom even after I have been drinking.	-.08	.83	.03	.01
I feel confident I could stop to put a condom on myself or my partner even in the heat of passion.	-.28	.58	-.02	.14
I feel confident that I would remember to use a condom even if I were high.	-.16	.59	.30	.02
I feel confident I could gracefully remove a condom when we have intercourse.	-.02	.05	.73	.15
I feel confident I could gracefully dispose of a condom when we have intercourse.	-.13	.14	.76	.23
I feel confident in my ability to put a condom on myself or my partner.	-.17	.05	.19	.85
I feel confident in my ability to put a condom on myself or my partner quickly.	-.24	.10	.34	.65

Note: PD = Partner's Disapproval; MA = Mechanics *after*; A = Assertive/Intoxicants; MU = Mechanics *use*.

Message Pilot Study Methods

Participants

The purpose of the third phase (i.e., message pilot study) was to assess the messages and wording of the message framing items. More specifically, the goals of the pilot study were to check for message clarity, and manipulation of message framing and the presence of guilt appeals. Two hundred and twenty-six undergraduate students enrolled in communication classes at a large northeastern university participated in this study as part of a class exercise. Demographic information was not assessed, but these students mirror the general sex, ethnic/racial, and educational make-up of the larger university population.

Design of Message Pilot Study

A 2 (sex: male, female) X 3 (message frame: gain, loss, control) between subjects posttest message design was used for the final round of the message pilot study. The messages that male and female participants received were essentially the same except for the titles of each and the use of pronouns to reflect heterosexual dating relationships. Participants were exposed to one message that was manipulated to contain information regarding oral sex that focused on either giving/performing- or receiving oral sex. Within each sex condition, participants were randomly assigned to a message condition using a random numbers table. Random assignment to conditions ensures that each participant has an equal chance of being assigned to a particular condition (i.e., external validity).

Survey Instrument

The first part of each questionnaire packet was ordered in the following way: (1) message; (2) open-ended questions; (3) message induced affect; (4) message clarity and comprehension; (5) framing manipulation and (6) message content.

Measures for Message Pilot Study

The primary purpose of the pilot study was to assess message clarity, affect, and message framing (i.e., gain, loss, and control).

Message clarity. The message pilot study assessed message clarity via five questions measured on 5-point semantic differential scales that asked whether the information in the message was *well explained* or *unclear*, *supported* or *unsupported*, *technical* or *straightforward*, *understandable* or *confusing*, and *helpful* or *not helpful*. Items to measure message clarity were included to demonstrate that all the messages are understandable and equally clear in their use of language and organizational structure.

Message framing. Message framing for the pilot study was assessed via a series of questions. The participants were asked whether the information in the message emphasized the “disadvantages of *unprotected* oral sex” or the “advantages of *protected* oral sex,” *few benefits* or *lots of benefits*, *lots of advantages* or *few advantages*, *cost your health* or *benefit your health*, and whether there were potential *gains* or *losses* to one’s health because of particular behaviors.

Message induced affect. The message pilot study assessed affect by fourteen questions measured on 5-point semantic differential scales that asked whether the information in the message made participants feel *calm* or *anxious*, *afraid* or *unafraid*,

angry or content, guilty or guilt-free, embarrassed or comfortable, ashamed or arrogant, blameworthy or innocent, prideful or humble, fearful or fearless, responsible or irresponsible, concerned or carefree, hopeful or hopeless, compassionate or unfeeling, and relief or constricted.

Message content. The pilot study assessed the directness of the message content. More specifically, participants were asked what *type* of sexual activity the message focused on. For example, “I think the information in the message focused on” and participants were asked to check either “oral intercourse (i.e., oral-to-genital contact),” “vaginal intercourse (i.e., vaginal-penile penetration)” or “all sexual behaviors.” Two questions examined the direction of the activity/behavior. For example, “I think the information in the message focused on” and participants were asked to check either “catching an STI (i.e., unprotected oral sex),” “passing an STI (i.e., unprotected oral sex),” or “does not apply.”

The message pilot study was conducted in a series of five steps, with the findings from the preceding step contributing to the revision of subsequent messages and the wording of the manipulation check items. For example, the manipulation check item “overall, I think the information in the message talks about [blank] of a behavior” was a semantic differential item, with a range from 1 (*positives*) to 5 (*negatives*). There were no differences between the message frames on this item even though there should have been. Therefore, the messages and the wording of the item were reviewed. The wording of the item stem remained essentially the same, but the anchors were changed slightly given the context and the type of information presented (i.e., proposing safer sex practices could be

perceived as restrictive and hence negative). As a result, the newer manipulation check item was changed to “overall, I think the information in the message suggests that the behavior has (is) [blank],” with *very negative* (1) at one end, and *not very negative* (5) at the other end. Revisions to the final versions of the messages included the use of bold and underlining to highlight key framing terms; these small subtle changes to the messages revealed significant differences for the loss and gain message conditions ($F_{(2, 41)} = 3.66, p = .03$); Bonferroni follow-up tests revealed there were no significant differences between the gain-framed and control conditions. No significant differences were found for the guilt appeals items and any of the three message conditions as was expected.

Overall Results from the Three Phases

In this section, one message from the final study (i.e., female, gain, give, guilt appeal, see Appendix J) will be used to illustrate how the results from the three phases contributed to the messages and study design used in the final phase of the project. Results from the focus groups revealed that the narrative approach may be more appealing in this particular context. That is, participants mentioned that a message that contained a story about a ‘real’ couple and how this could happen (i.e., STI transmission from oral-to-genital contact), would be more believable and make the issue of using protection for oral sex more salient. The messages were revised and evolved during the multiple phases of this project. Direct changes to include the use of narrative occurred during the *Message Pilot Study* and the following content reflects the decision to use a narrative based on results from the focus groups.

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *he* developed genital herpes. But *how* they discovered Jordan contracted genital

herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed having oral sex. They didn't realize that when Sarah had a cold sore on her mouth she could transfer herpes to Jordan. He did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Jordan started to feel ill. He had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over his genitals.

This “news” surprised them both, considering they were in an exclusive relationship and Sarah did not have any symptoms (i.e., signs) of herpes on her genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). The use of latex condoms or dental dams¹ during oral sex has the **benefit** of protecting your health and your partner's health, too.

Sarah was upset because she had always taken steps to protect her health and then this happened. I guess you could say she is feeling guilty because she feels like she should have known better. And she feels responsible for *giving* Jordan an STI – ‘I should have known better than to *perform unprotected* oral sex on my partner.’

Participants from the focus groups repeatedly stated that it would be helpful to read about a couple, in which oral-to-genital STI transmission occurred. This approach was utilized to address participants concerns and to invoke guilt. In other words, if individuals could not envision themselves in that particular position, but could read about a couple and empathize with the couple, feelings of guilt might be elicited. For example, from the above excerpt statements such as “Sarah was upset...I guess you could say she is feeling guilty...And she feels responsible for *giving* Jordan an STI” were meant to invoke guilt (note: the *sex* of the person who transmitted the infection, and the *direction* of transmission was varied in the different message conditions).

Independent of whether the messages actually elicited guilt, the presence of a guilt appeal

was assessed. For example, individuals were asked whether “the characters in this story (i.e., Sarah & Jordan) may feel bad because they put themselves at risk” or “the characters in this story (i.e., Sarah & Jordan) feel guilty since they did not protect themselves – that is, they risked their health by not using protection during oral sex” (see Appendix W for items).

The following content was written to convey efficacy information about the use of protection for oral sex (i.e., to protect oneself from transmission); that is, individuals can choose to engage in protective behaviors, which can reduce the likelihood of infections.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By engaging in “safer sex” behaviors you’ll protect yourself and your partner’s sexual health. There are many **benefits to being a sexually responsible** young adult. Remember that **you stand to gain health benefits** if you take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

The highlighted (i.e., underlined and bolded) segments reflect the different frames; the statements above are from the gain-framed condition.

The second phase of instrument development and assessment was conducted to evaluate the survey instruments and examine the underlying structures of the different measures. Results from the second phase revealed that the relational transgressions scale was not reliable, and therefore was not used in the full study. As stated previously, a decision was made to eliminate the vaginal sex messages and only use messages geared toward safer oral sex for the final study (i.e., the messages were too dissimilar and would not be able to be collapsed across conditions). Therefore, only survey items that included direct reference to oral sex were included for the pilot and full study (i.e., all references to

the use of protection for vaginal sex were removed). The third phase, the pilot study, assessed the presence of the different frames (i.e., gain, loss, and control) and the wording of the manipulation check items. Results of the pilot revealed that subtle, yet meaningful changes needed to be made to the messages (i.e., the use of bold and underlining to emphasize the frame) and careful, rewording of the survey items were made to operationalize the framing construct.

Methods for Study

Design of Study

A 5 (message condition: gain-give, gain-receive, loss-give, loss-receive, control) X 2 (sex: male, female) between subjects posttest message design was used for the study (Phase IV). The messages that male and female participants received were essentially the same except for the titles of each message and the use of pronouns to reflect heterosexual dating relationships (see Appendices J-R for samples of the messages used in the study). Participants were exposed to one message that was manipulated to contain information regarding oral sex and varied in terms of whether the message focused on giving/performing versus receiving oral sex. Within each sex condition, participants were randomly assigned to one of the five message conditions using a random numbers table.

The first part of each questionnaire packet was ordered in the following way: general sexual health history and current sexual practices questions, one of the five possible messages, then questions pertaining to actual and procedural knowledge, message induced affect, message clarity and comprehension, message framing and content manipulation items. The remainder of the questionnaire contained items that

measured: perceived awareness of the presence of a guilt appeal (i.e., perception that the content addressed inconsistency between personal standards and action, and the recommended response to attenuate this inconsistency); feelings of anger regarding the recommended use of protection, feelings of embarrassment regarding the use of latex barriers, feelings of guilt regarding failure to use of protection, reactance, reinforcement of attitudes, self-efficacy regarding use of protection, response efficacy, health orientation, behavioral intentions, and relational commitment. Demographic information was the last page of the survey.

Participants

Four hundred and fifty-nine undergraduate students enrolled in communication classes at a large northeastern university received extra credit for participation in this study. Recruitment procedures explicitly asked for students who have been sexually active and/or have dated within the last twelve months. These criteria were specified to systematically eliminate students who were less at risk for sexually transmitted infections or HIV and might have little use for condoms or latex barriers. Participants were primarily Caucasian (396 Caucasians, 20 Asians, 11 Latinos/Latinas, 17 African Americans, 6 who noted 'Other,' and 9 unreported). Age of participants ranged from 18 to 38 years ($M = 19.98$; $SD = 2.73$). Education levels varied from freshmen (36.2%), sophomore (32.2%), junior (17.2%), senior (10.9%), and 'Other' including super seniors (3.3%). The sample was predominately heterosexual (87.8%). Forty-four noted that they were at the time of the survey, involved in a monogamous relationship, 37.9% are not currently involved in a monogamous relationship, 17.4% reported that they are not

sexually active, and .7% did not respond. Relatedly, forty-two percent reported that they are involved in a committed, exclusive relationship, 9.4% noted casually dating multiple people, 10.4% reported casually dating one person, 4.1% are in committed, non-exclusive relationships, 33.3% indicated they are not dating and .4% did not report relationship type.

Measures for study

Message clarity. Clarity was assessed by five questions measured on 5-point semantic differential scales that asked whether the information in the message was *well explained* or *unclear*, *supported* or *unsupported*, *technical* or *straightforward*, *understandable* or *confusing*, and *helpful* or *not helpful*. Items to measure message clarity were included to demonstrate that all the messages are understandable and equally clear in their use of language and organizational structure (see Appendix S).

Message framing. Message framing was assessed by 11 different items; six of those items were semantic differential items, two were Likert-type items, and two items were categorical variables. For example, participants were asked whether the information in the message emphasized the potential *benefits* or *potential costs*, *positives* or *negatives*, *potential gains* or *potential losses*, and the *advantages* or *disadvantages* of particular behaviors (see Appendix T).

Message induced affect. Affect was assessed by ten questions measured on 5-point semantic differential scales that asked whether the information in the message made participants feel *calm* or *anxious*, *regretful* or *not regretful*, *afraid* or *unafraid*, *angry* or *content*, *guilty* or *not guilty*, *embarrassed* or *comfortable*, *ashamed* or *unashamed*, *fearful*

or *not fearful*, *not concerned* or concerned, and *responsible* or *irresponsible* (see Appendix U).

Message content. The study assessed the *direction* of sexual activity. More specifically, participants were asked what *type* of sexual activity the message focused on. For example, “I think the information in the message focused on” and participants were asked to check “giving(performing) unprotected oral sex,” “receiving unprotected oral sex,” or “does not apply” (see Appendix V).

Guilt Appeals. The presence of a guilt appeal was measured using nine different items. There are two components to a guilt appeal: (a) highlight some inconsistency between the receiver’s standards and the receiver’s action and (b) the recommended course of action to address this inconsistency. Five items assessed the first component of a guilt appeal: (a) the characters in this story (i.e., Sarah & Jordan) may feel bad because they put themselves at risk for an STI; (b) the characters in the story feel guilty because they neglected to protect themselves during oral sex; (c) the characters in this story feel guilty since they did not protect themselves – that is, they risked their health by not using protection during oral sex; (d) the characters in this story may feel bad because they “broke an unwritten rule” (i.e., do no harm); and (e) the characters in this story may feel guilty because they unintentionally compromised their health by not using protection during oral sex ($M = 3.73$, $SD = .73$); ($\alpha = .80$). Four items assessed the second component of a guilt appeal (i.e., provision of the recommended response): (a) the information in this message provides a clear methods to protect oneself during oral sex; (b) the information in the message talks about a way avoid what happened to Sarah and

Jordan; (c) the information in this message provides a way to protect oneself during oral sex; and (d) the information in this message suggests a strategy to reduce the risk of disease that may be spread during oral sex (see Appendix W). The alpha reliability for this scale was .79; ($M = 3.63$, $SD = .82$).

Health orientation. The survey instrument contained 17 items that measured health orientation, a multi-dimensional construct, on a Likert-type scale (1 = strongly disagree, 5 = strongly agree) (Snell et al., 1990; 1991). The first dimension, *motivation for healthiness*, was comprised of the following 5 statements: (a) I'm very motivated to be physically healthy; (b) I'm strongly motivated to devote time and effort to my physical health; (c) I have a strong desire to keep myself physically healthy; and (d) it's really important to me that I keep myself in proper physical health; and (e) I strive to keep myself in tip-top physical shape ($M = 4.21$, $SD = .65$); ($\alpha = .91$). The second dimension, *motivation to avoid unhealthiness*, contained the following 5 statements: (a) I do things that keep me from becoming physically unhealthy; (b) I am motivated to keep myself from becoming physically unhealthy; (c) I try to avoid engaging in behaviors that undermine my physical health; and (d) I really want to prevent myself from getting out of shape; and (e) I am really motivated to avoid being in terrible physical shape ($M = 4.11$, $SD = .60$); ($\alpha = .73$). The third dimension, *value own health*, included the following three statements: (a) I work very hard to take care of my health; (b) protecting my health is one of my most important goals; and (c) I really don't worry much about my health (reverse-coded) ($M = 4.26$, $SD = .64$); ($\alpha = .78$). The fourth dimension, *value other's health*, contained the following 4 statements: (a) I care about the health of the person I am

physically intimate with; (b) protecting the health of the people I care about is an important goal; (c) I really don't worry much about the health of the people I have sex with (reverse-coded); and (d) I try to protect the health of the person I have sex with ($M = 4.33$, $SD = .51$); ($\alpha = .79$) [see Appendix X].

Anger regarding use of protection. The survey instrument contained six items that measured anger regarding the use of protection for oral sex on a Likert-type scale (1 = strongly disagree, 5 = strongly agree). Respondents were asked to rate the following statements: (a) I would feel really angry if a sexual partner insisted we use a condom for oral sex; (b) I would feel really angry if a sexual partner insisted we use a condom for vaginal sex; (c) the thought of using condoms for oral sex makes me angry; (d) I would feel angry if a sexual partner insisted we use protection (i.e., condom, dental dam, saran wrap) for oral sex; (e) it makes me mad to have to use condoms for protection when having oral sex; and (f) I am glad use latex condoms (or dental dams) for protection when having oral sex (reverse-coded) (see Appendix Y). This scale yielded an alpha reliability of .84; ($M = 2.46$, $SD = .71$).

Embarrassment regarding the use of latex barriers. The embarrassment regarding the use of latex barriers scale was comprised of 8 items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) (Vail-Smith et al., 1992). Respondents were asked to rate the following statements: (a) I would be embarrassed if a new partner insisted that we use a latex condom for oral sex; (b) I would be embarrassed to tell my partner during foreplay that I am not willing to have sexual intercourse unless we use a condom; (c) I would be embarrassed to provide a condom during lovemaking; (d) I would

be embarrassed to talk to my partner about condom use; (e) I would be embarrassed if a new partner insisted that we use protection (i.e., condom, dental dam, saran wrap) for oral sex; (f) I would be embarrassed to tell my partner that I am not willing to have oral sex unless we use protection; (g) I would be embarrassed to provide protection (i.e., condom, dental dam, saran wrap) during oral; and (h) I would be embarrassed about talking to my partner about the use of protection (i.e., condom, dental dam, saran wrap) for oral sex (see Appendix Z). The alpha reliability for this scale was .84; ($M = 2.24$, $SD = .51$).

Guilt regarding use of protection. Guilt regarding the use of protection for oral sex was assessed via 14 items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Respondents were asked to rate the following statements: (a) I would feel guilty if I did not use protection for oral sex; (b) I would feel irresponsible if I did not use a condom for oral sex; (c) I would not feel guilty about using protection for oral sex (reverse-coded); (d) I see no reason to feel guilty for not using condoms (reverse-coded); (e) I feel like a responsible sexual partner because I consistently use condoms for oral sex (reverse-coded); (f) Engaging in unprotected oral sex would not make me feel guilty (reverse-coded); (g) I do not feel guilty for not using condoms (reverse-coded); (h) I see no reason to feel guilty for not using protection for oral sex (reverse-coded); (i) If I were to engage in unprotected oral sex, I would not feel guilty; (j) I feel guilty for not using condoms; (k) I would feel bad if I didn't use protection during oral sex; (l) You will feel bad if you don't use protection for oral sex; (m) You owe it to yourself to use protection when having oral sex; and (n) I would feel like a responsible sexual partner if I consistently used protection for oral sex (reverse-coded) (see Appendix AA). The alpha

reliability for this scale was .78. Upon further inspection, three items were removed because the wording of the items seemed to be confusing (i.e., c, e, and n) and as a result the reliability improved ($\alpha = .87$); ($M = 2.94$, $SD = .71$).

Perceived behavioral control. Perceived control was evaluated by 4 items, measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The scale consisted of the following items: (a) I have control over whether I use condoms during oral sex; (b) my partner has control over whether we use condoms during oral sex; (c) I am free to decide whether I want to use protection (i.e., condom, dental dam, saran wrap) during oral sex; and (d) no one but me controls what I do when it comes to using protection (i.e., condom, dental dam, saran wrap) for oral sex ($\alpha = .52$) (see Appendix BB). The second item (i.e., b) was removed and the alpha improved slightly ($\alpha = .61$); ($M = 3.54$, $SD = .52$).

Reinforcement. Attitude reinforcement was comprised of 4 items, measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree): (a) the message persuaded me that protecting myself during oral sex is the right thing to do; (b) the message reinforced the idea that it is “smart” to use protection during oral sex; (c) the message reinforced the idea that the use of protection (i.e., condom, dental dam, saran wrap) during oral sex is the right thing to do; and (d) the message persuaded me to use protection during oral sex ($M = 3.68$, $SD = .63$); ($\alpha = .74$). (see Appendix CC).

Self-efficacy regarding use of protection. Self-efficacy regarding the use of protection for oral sex was assessed via 11 items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) (see Appendix DD). The scale consisted of the

following items: (a) if I were to suggest using protection (i.e., condom, dental dam, saran wrap) to a partner, I would be afraid that s/he would reject me (reverse-coded); (b) I feel confident in my ability to put a condom on myself or my partner quickly; (c) if I were unsure of my partner's feeling about using condoms, I would not suggest using one (reverse-coded); (d) I would not feel confident suggesting using condoms with a new partner because I would be afraid that s/he would think I have a STI (reverse-coded); (e) I feel confident in my ability to put a condom on myself or my partner; (f) I would not feel confident suggesting using protection (i.e., condom, dental dam, saran wrap) with a new partner because I would be afraid that s/he would think I have a STI (reverse-coded); (g) I would not feel confident suggesting using protection (i.e., condom, dental dam, saran wrap) with a new partner because I would be afraid that s/he would think I thought s/he had a STI (reverse-coded); (h) I feel confident in my ability to use protection (i.e., condom, dental dam, saran wrap) with my partner; (i) if I were unsure of my partner's feeling about using protection (i.e., condoms, dental dams, saran wrap) I would not suggest using it (reverse-coded); (j) if I were to suggest using a condom to a partner, I would be afraid that s/he would reject me (reverse-coded); and (k) I would not feel confident suggesting using protection (i.e., condoms, dental dam, saran wrap) with a new partner because I would be afraid that s/he would think I have had a past homosexual experience (reverse-coded).

Principal axis factoring with varimax rotation was selected to verify the two dimensions of condom self-efficacy (Brien et al. 1994). The following criteria were applied in decisions to retain an item: (a) factor loading of .50 or greater; (b) no

secondary factor loading exceeding .30; (c) loading on a factor with a minimum of two items; (d) theoretically interpretable; and (e) factor's eigenvalue exceeds 1.0 (Comrey & Lee, 1992). Application of the above criteria to the 11 items yielded a two-factor solution accounting for 53.8% of the variance. Table 2 provides a summary of the rotated factor loadings for the items on these two dimensions. The first factor, labeled "Partner's Disapproval", accounted for 34.2% of the variance and was comprised of eight items that related to the idea of approaching or suggesting the use of protection with a partner (e.g., "If I were to suggest using protection to a partner, I would be afraid that s/he would reject me," and "I would not feel confident suggesting using protection with a new partner because I would be afraid that s/he would think I have a STI."). The mean for responses to this scale was ($M=3.88$; $SD=.72$) with a range of 1 to 5 on a five-point scale, where 1 = strongly disagree and 5 = strongly agree. Reliability analysis obtained a Cronbach coefficient alpha = .87.

The second factor, labeled "Mechanics", accounted for 19.6% of the variance and was comprised of three items that related to the mechanics of using protection for sexual activity (e.g., "I feel confident in my ability to put a condom on myself or my partner," and "I feel confident in my ability to use protection with my partner."). The mean for responses to this scale was ($M=3.87$; $SD=.89$) with a range of 1 to 5 on a five-point scale, where 1 = strongly disagree and 5 = strongly agree. Reliability analysis obtained a Cronbach coefficient alpha = .84.

Response efficacy. The survey instrument contained five items that measured response efficacy regarding the use of protection for oral sex on a Likert-type scale (1 =

strongly disagree, 5 = strongly agree) (see Appendix EE). Respondents were asked to rate the following statements: (a) I think consistent use of protection during sexual activity is an excellent way to prevent the spread of STIs; (b) I believe that regular use of protection during oral sex can decrease the spread of STIs; (c) I think consistent use of protection during sexual activity is an excellent means of contraception; (d) I believe that regular use of protection during oral sex can prevent the spread of STIs; and (e) I think consistent use of protection during sexual activity is an excellent way to prevent the spread of STIs ($M = 4.16$, $SD = .53$); ($\alpha = .80$).

Behavioral intentions. Intentions to use protection for oral sex was assessed by 3 items measured on a 5-point Likert scale, (1 = strongly disagree, 5 = strongly agree): (a) I will use protection (i.e., condom, dental dam, saran wrap) next time I have oral sex; (b) I will use a condom next time I have oral sex; and (c) I will tell my partner to use protection (i.e., condom, dental dam, saran wrap) for oral sex ($M = 2.66$, $SD = .93$); ($\alpha = .90$) (see Appendix FF).

Actual knowledge. Actual knowledge regarding safer sex behaviors was assessed via 11 items. For example, “use of protection (i.e., latex condom, dental dam, saran wrap) during *oral* sexual contact can decrease chances of getting an STI.” Participants were asked to respond to the 11 true (1) or false (0) items and items were summed (range 0-11 with higher scores indicating greater knowledge [i.e., more correct responses]). [see Appendix GG].

Procedural knowledge. Procedural knowledge assessed by 7 true/false items (see Appendix HH). Example items included: (a) “Latex condoms can be reused to have sex”

and (b) “washing the genital area with soap after having sex protects against STIs.” All items were summed for a range of 0-7.

Mutual commitment. Relational commitment (see Appendix II) was assessed via 4 items measured on a 5-point Likert scale, (1 = strongly disagree, 5 = strongly agree) (Knobloch & Solomon, 2003). If respondents noted that they were involved in “a committed, exclusive relationship” there were asked to respond to the following four statements: (a) my partner and I are both committed to not dating other people; (b) my partner and I are dating each other exclusively; (c) my partner and I are mutually committed to each other; and (d) my partner and I have made an explicit commitment to each other ($M = 4.82$, $SD = .49$); ($\alpha = .93$).

Demographics. Participants were asked to respond to thirteen questions (see Appendix JJ) about themselves including: sex, age, ethnicity, education level, and sexual orientation. In addition participants were asked a series of questions about their relationship status, sexual health and behaviors. More specifically, participants were asked about the type of relationship they were currently involved in, the number of sexual partners within the last 12 months, number of sexual partners within the last month, whether s/he had “unprotected” (without a condom or dental dam) oral and vaginal sex, respectively, within the last six months, if the cost of dental dams/ latex condoms was a barrier to use, if the location of dental dams/ latex condoms was a barrier to use, and if yes, then to please circle all that applied, in terms of: (a) not accessible when I need one, (b) not accessible in stores (inconvenient), or (c) both.

Table 2. Factor Loadings for Factor Analysis Self-Efficacy

Factor	PD	M
If I were to suggest using protection to a partner I would be afraid that s/he would reject me.	.59	.15
If I were unsure of my partner's feelings about using Condoms, I would not suggest using one.	.67	.20
I would not feel confident suggesting using condoms with a new partner because I would be afraid the s/he would think I have a STI.	.74	.06
I would not feel confident suggesting using protection with a new partner because I would be afraid the s/he would think I have a STI.	.83	.10
I would not feel confident suggesting using protection with a new partner because I would be afraid the s/he would think I thought s/he had a STI.	.74	.09
If I were unsure of my partner's feelings about using protection, I would not suggest using it.	.62	.20
If I were to suggest using a condom to a partner, I would be afraid that s/he would reject me.	.70	.19
I would not feel confident suggesting using protection with a new partner because I would be afraid that s/he would think I have had a past homosexual experience.	.50	.04
I feel confident in my ability to put a condom on myself or my partner quickly.	.06	.85
I feel confident in my ability to put a condom on myself or my partner.	.09	.99
I feel confident in my ability to use protection with my partner.	.29	.54

Note: PD = Partner's Disapproval; M = Mechanics

Data collection procedures

A consent form (see Appendix KK) and a questionnaire packet were administered in a classroom setting ($N = 17$). Approximately five to twenty participants completed the questionnaire packet in each of the 17 classroom data collection sessions. The questionnaire packet included one of the ten possible messages used in the study and the survey instrument that included all of the previously mentioned measures. The researcher and/or research assistants asked each of the participants to read the consent form, sign it, and keep a copy for themselves. Within each sex condition, participants were randomly assigned to one of the five message conditions using a random numbers table.

Participants were then asked to complete the questionnaire. To ensure that participants read the message before continuing on with the survey, the message was inserted and paper clipped to the questionnaire packet. On the page preceding the paper clipped message, participants were instructed to “STOP!!! And read the message on the next page! (i.e., the green piece of paper that is attached to the survey).” Participants had to detach the message in order to read it. This particular method was used as an additional step to ensure that each participant read the message *before* completing the remaining survey questions. The questionnaire took approximately 30 minutes to complete. Upon finishing the questionnaire, the researcher and/or the research assistants answered any questions from participants and then thanked them for their involvement in the research.

Chapter 3

RESULTS

Following formative research and a pilot study to guide measurement and message development and refinement, a cross-sectional survey was administered to participants derived from the concepts in the MFGAM. Three research questions and four hypotheses were evaluated.

Preliminary data analysis

Before data analyses were conducted to test hypotheses and research questions, order effects were addressed, as social influence research has demonstrated that the order that individuals encounter questions affects their responses. All analyses were conducted using the 11.5 version of the Statistical Package for the Social Sciences (SPSS).

Data distribution. Descriptive statistics were examined to assess whether any variables fell outside the skewness and kurtosis range of -2 to +2 (Curran, West, & Finch, 1996). Several of the guilt appeal items were highly peaked (i.e., kurtosis above -2 to +2 range). For example, the item “the characters in this story (i.e., Sarah & Jordan) may feel bad because they put themselves at risk for an STI” was highly peaked (kurtosis = 7.85; skewness = .33). This item, and the other guilt appeal items that were also high in kurtosis, were retained because inspection of the items revealed that most participants “agreed” with these statements.

Results of order effect. Due to the length of the survey, two versions of the survey were created to control for any order effects. Eight one-way ANOVAs were conducted, using survey version as the independent variable (two types) and items that measured

anger and guilt regarding use of protection, embarrassment regarding the use of latex barriers, perceived control, reinforcement of attitudes, self- and response efficacy, health orientation, and behavioral intentions as the dependent variables. Four items were found to be significantly different at the .05 level: (a) if I were to engage in unprotected oral sex I would not feel guilty; (b) I do not feel guilty for not using condoms (c) I'm very motivated to be physically healthy; and (d) I really want to prevent myself from getting out of shape. The Bonferroni correction (.05 significance level divided by eight comparisons) was used to set the significance level to .006. Using this correction, none of the items were statistically different between the two versions. However, the second item, "I do not feel guilty for not using condoms," was removed because of the unclear wording and because retaining this item lowered reliability.

Manipulation checks. A series of manipulation checks were conducted to ascertain whether or not participants perceived differences between the message conditions regarding how the message was framed (i.e., positive, negative, control) and to ensure that perceptions of the presence of a guilt appeal were consistent across the gain- and loss-framed conditions.

There was a total of 13 different manipulation check items. Five message framing items were semantic differential items and two were Likert-type statements, with all these items scored on five-point scales. One-way ANOVAs were performed to assess the effectiveness of the experimental manipulations. All of the necessary items were recoded, so that the means were all in the same direction (i.e., lower numbers represent costs/losses; higher numbers indicate benefits/gains). Three framing manipulation check

items were categorical variables and as a result, Chi-squares were conducted. One item assessed the content of the information presented (i.e., oral, vaginal, or all behaviors) and a chi-square was conducted to assess this item. Two items assessed the direction of transmission (i.e., passing versus catching); these items were categorical and therefore, Chi-squares were performed to evaluate these experimental manipulations.

There were significant differences between participants who received a loss-framed ($M = 1.78$, $SD = 1.03$) versus gain-framed ($M = 2.39$, $SD = 1.39$) and the control message ($M = 2.41$, $SD = 1.23$) for the statement (frame2) “Overall, I think the information in the message talks about...the benefits(costliness) of (un)protected oral sex” ($F(2, 456) = 14.06$; $p < .001$; $\eta^2 = .06$). As expected, individuals in the gain-framed ($n = 188$) and control conditions ($n = 86$), respectively, reported higher scores for perceived benefits compared to individuals in the loss-framed condition ($n = 185$). To assess pairwise differences among the three message conditions for this item, the Bonferroni follow-up procedure ($p = .05$) was performed. The results indicated significant differences between the loss-framed and both the gain-framed ($p < .001$) and control ($p < .001$) messages, respectively; but no significant differences between the gain-framed and control conditions.

Significant differences emerged for the statement (frame3) “Overall, I think the information in the message talks about...the potential gains(losses) from (un)protected oral sex” ($F(2, 456) = 22.27$; $p < .001$; $\eta^2 = .09$). Essentially, participants in the gain-framed ($M = 2.47$, $SD = 1.30$) and control ($M = 2.56$, $SD = 1.23$), conditions reported higher scores, indicating perceived potential gains of a particular behavior (i.e., protected

oral sex), compared to participants in the loss-framed ($M = 1.75$, $SD = 1.05$) condition.

See Table 3 for a summary of all the ANVOA results. Post hoc analyses revealed significant differences between the loss-framed and both the gain-framed ($p < .001$) and control ($p < .001$) messages, respectively; but no significant differences between the gain-framed and control conditions.

There were also significant differences between message conditions for the item (frame4) “Overall, I think the information in the message talks about...the costs(benefits) of being sexually ir(responsible),” ($F(2, 456) = 9.38$; $p < .001$; $\eta^2 = .04$). Once again, individuals in the gain-framed ($M = 2.26$, $SD = 1.25$) and control ($M = 2.33$, $SD = 1.11$) conditions, respectively, reported higher scores for perceived benefits compared to individuals in the loss-framed ($M = 1.79$, $SD = 1.13$) condition. Post hoc analyses showed significant differences between the loss-framed and both the gain-framed ($p < .001$) and control ($p < .001$) messages, respectively; but no significant differences between the gain-framed and control conditions.

An analysis of variance indicated significant differences between the three message conditions for the item (frame6) “the message stressed the positive results of following the behavior” ($F(2, 456) = 23.60$; $p < .001$; $\eta^2 = .09$); ($M_{Loss} = 2.63$; $M_{Gain} = 3.18$; $M_{Control} = 3.58$). The Bonferroni post hoc tests revealed significant differences among all three message conditions; such that, there were significant differences between the loss-framed and the gain-framed conditions ($p < .001$), and differences between the loss-framed and control conditions ($p < .001$), as well as, significant differences between the gain-framed and the control conditions ($p < .05$).

For the second Likert-type manipulation check item (frame7), an analysis of variance indicated significant differences between conditions for the item “the message focused on the costs of not following the recommended behavior” ($F(2, 456) = 9.92; p < .01; \eta^2 = .04$); ($M_{Loss} = 1.91; M_{Gain} = 2.23; M_{Control} = 2.42$). Post hoc tests indicated significant differences between the loss-framed and the control conditions ($p < .001$), and the loss-framed and gain-framed conditions ($p < .001$), but no difference between the gain-framed and control conditions (see Table 3).

There were significant differences between participants who received a loss-framed ($M = 2.26, SD = .90$) versus gain-framed ($M = 2.68, SD = 1.11$) and the control message ($M = 2.51, SD = 1.02$) for perceptions that the information suggested (negt) “that the behavior has/ is” *very negative* (or *not very negative*) ($F(2, 456) = 7.90; p < .001; \eta^2 = .03$). Once again, individuals in the gain-framed and control conditions, respectively, reported higher scores indicating that they perceived the information as less negative than individuals in the loss-framed condition. Post hoc analyses showed significant differences between the loss-framed and the gain-framed ($p < .001$) condition. There were no differences between the loss-framed and control conditions or between the gain-framed and control conditions.

Significant differences emerged for perceptions that the statement (costben) “Overall, I think the information in the message suggests that the behavior can...cost(benefit) your health” ($F(2, 456) = 8.73; p < .001; \eta^2 = .04$); such that individuals in the gain and control conditions noted the benefits of the behavior compared to individuals in the loss-framed condition ($M_{Loss} = 2.07; M_{Gain} = 2.59; M_{Control} = 2.64$).

The remaining three message framing manipulation-check items were categorical variables. Therefore, separate chi square tests were conducted for each. Consistent with the argument that factually equivalent information will be perceived differently based on the frame (i.e., positive/ negative), participants were asked to check one response to the following “I think the information in the message focused on:” (a) disadvantages of unprotected oral sex, (b) advantages of protected oral sex, or (c) does not apply. A chi-square goodness of fit test showed that the number of participants in the loss-framed condition who noted the disadvantages of unprotected oral sex, $n = 154$ (58.8%) was significantly greater than those in the gain-framed condition, $n = 108$ (41.2%), $X^2(1, N = 262) = 355.1, p < .001, \phi = .71$. Conversely, those in the gain-framed, $n = 73$ (73%) condition were significantly more likely to note the advantages of protected oral sex compared to those in the loss-framed condition $n = 27$ (27%); $X^2(1, N = 100) = 116.7, p < .001$. Thus the experimental manipulation was successful.

Similarly, when participants were asked to note which statement the message contained: (a) “remember you stand to lose health benefits if you do not take preventive measures,” (b) “you can make safer sex fun and enjoyable with your partner and have the peace of mind that you are both doing what you can to protect yourself and one another,” or (c) “remember you stand to gain health benefits if you do not take preventive measures” there were significant differences between those in the loss-framed compared to the gain-framed condition regarding perceptions of the loss of health benefits. More specifically, a chi-square goodness of fit test showed that the number of participants in the loss-framed condition who noted the potential for losing health benefits by neglecting

to take preventive measures, $n = 144$ (67.9%) was significantly greater than those in the gain-framed condition, $n = 68$ (31.2%); $X^2(1, N = 212) = 266.0, p < .001$. On the other hand, those in the gain-framed condition $n = 64$ (85.3%) were significantly more likely to report the potential to gain health benefits by engaging in preventive measures compared to those in the loss-framed condition $n = 11$ (14.7%); $X^2(1, N = 75) = 62.5, p < .001$.

Table 3. Summary of Message Framing, Likert-type and Semantic Differential, Manipulation Check Items.

Message Condition	Loss $n = 185$	Gain $n = 188$	Control $n = 86$	F	p	η^2	<i>Bonferroni Post Hoc Tests</i>
Variable							
Frame2	1.78(1.03)	2.39(1.39)	2.41(1.23)	14.06	< .001	.058	<.001 (L-G) <.001 (L-C) ns (G-C)
Frame3	1.75(1.05)	2.47(1.30)	2.56(1.23)	22.27	< .001	.09	<.001 (L-G) <.001 (L-C) ns (G-C)
Frame4	1.79(1.13)	2.26(1.25)	2.33(1.11)	9.38	< .001	.040	<.001 (L-G) <.01 (L-C) ns (G-C)
Frame6	2.63(.99)	3.18(1.04)	3.58(1.53)	23.60	< .001	.094	<.001 (L-G) <.001 (L-C) <.05 (G-C)
Frame7	1.91(.69)	2.23(1.03)	2.42(1.25)	9.92	< .001	.042	<.01 (L-G) <.001 (L-C) ns (G-C)
Negt	2.26 (.90)	2.68(1.11)	2.51(1.02)	7.90	< .001	.033	<.001 (L-G) ns (L-C) ns (G-C)
Costben	2.07(1.14)	2.59(1.50)	2.64(1.41)	8.73	< .001	.037	<.001 (L-G) <.01 (L-C) ns (G-C)

As expected, significant differences were observed, with participants in the loss-framed condition reporting greater potential for the loss of health benefits, compared to participants in the gain-framed condition reporting greater potential to gain health benefits.

The final message framing manipulation check item asked participants to answer “I think the information in the message focused on:” (a) gaining health benefits by using protection, (b) losing health benefits by not using protection, or (c) does not apply. A chi-square goodness of fit test showed that the number of participants in the loss-framed condition who reported losing health benefits by *not* using protection, $n = 174$ (58.6%) was significantly greater than those who in the gain-framed condition, $n = 123$ (41.4%); $X^2(1, N = 972) = 402.9, p < .001$. Whereas, those in the gain-framed condition $n = 60$ (89.6%) were significantly more likely to report the gaining health benefits by using protection compared to those in the loss-framed condition $n = 7$ (10.4%); $X^2(1, N = 67) = 44.9, p < .001$. In other words, as expected, there were significant differences between individuals in the loss-framed condition and their perceptions of losing health benefits (i.e., risks associated with not using protection) compared to individuals in the gain-framed condition and their perceptions of gaining health benefits.

There was one item that assessed the content of the information presented (i.e., oral, vaginal, or all behaviors). A chi-square goodness of fit test showed that the number of participants in the *experimental* condition, $n = 354$ (77.1%), that reported that the information in the message focused on oral sex was significantly greater than those in the *control* condition, $n = 29$ (6.3%); and individuals in the *control* condition, $n = 52$

(11.3%), reported that the information in the message focused on all sexual behaviors more so than individuals in the *experimental* condition, $n = 18$ (3.9%); $X^2(1, N = 459) = 1195.14, p < .001$.

There were two manipulation check items to assess the direction of transmission. More specifically, the two items assessed whether the message focused on giving versus receiving oral sex, or catching versus passing an STI between partners. A chi-square goodness of fit test showed that the number of participants in the *receive* condition who reported the act of giving (performing) unprotected oral sex, $n = 48$ (30.8%) was significantly less than those in the *give* condition, $n = 108$ (69.2%); $X^2(1, N = 156) = 192.6, p < .001$. On the other hand, participants in the *receive* condition who reported the act of receiving unprotected oral sex, $n = 122$ (76.7%) was significantly greater than those in the *give* condition, $n = 37$ (23.3%); $X^2(1, N = 159) = 172.5, p < .001$. In other words, individuals in the *receive* condition were more likely to report the message focused on *receiving* unprotected oral sex compared to individuals in the *give* condition; whereas individuals in the *give* condition were more likely to report the message focused on *giving(performing)* unprotected oral sex.

There were significant differences between those in the *receive* condition compared to the *give* condition with respect to perceptions of catching versus passing an STI. More specifically, a chi-square goodness of fit test showed that the number of participants in the *receive* condition who reported the message focused on “catching an STI (i.e., unprotected oral sex),” $n = 146$ (74.9%) was significantly greater than those in the *give* condition, $n = 49$ (25.1%); $X^2(1, N = 195) = 219.97, p < .001$. Conversely, those

in the receive condition who reported the message focused on “passing an STI (i.e., unprotected oral sex),” $n = 35$ (25.5%) was significantly less than those in the give condition, $n = 102$ (74.5%); $X^2(1, N = 137) = 155.7, p < .001$. As expected, individuals in the *receive* condition were more likely to report that the message focused on *catching* an STI, while individuals in the *give* condition were more likely to report that the message focused on *passing* an STI.

In sum, the experimental manipulation check of the gain- and loss-frames worked as intended. Unfortunately, the control message was perceived as similar to the gain-framed message. That is, participants attributed more benefits of performing safer behaviors and did not see the message as neutral (i.e., did not stress the benefits of costs of a behavior). As a result, the gain and control conditions were collapsed for all subsequent analyses, and will simply be referred to as the gain condition.

Results

Hypotheses Tests

Hypothesis one. A 2 (frame) x 2 (sex) MANCOVA was conducted to test the first hypothesis, which predicted differences between participants who have used protection for oral sex and those who have not. The decision to run a MANCOVA was based on: (a) the types of variables involved (i.e., level of measurement, correlated DVs) and (b) the inclusion of a multidimensional construct (i.e., health orientation). More specifically, in order to reduce inflating error in an analysis with a multidimensional construct and other constructs a MANCOVA was conducted. Behavioral intentions to use protection, self-efficacy (i.e., the *mechanics* of using and *partner's disapproval* regarding use of protection), response efficacy, perceived control, reinforcement of attitudes, anger,

embarrassment, and guilt as the dependent variables and use of protection for oral sex, and message framing as the independent variables, while controlling for health orientation and intensity of mutual commitment. The gain and control conditions were collapsed because they were not found to be perceived by the participants as significantly different from one another. See Tables 4.1 and 4.2 for correlations between the predictor variables, covariates and behavioral intentions.

Table 4.1 Correlations for predictor variables, covariates and behavioral intentions for individuals who *have used* and *have not used* protection for oral sex [see notations following Table 4.2 for explanations of variable labels].

	BI	SE-M	SE-PD	RE	Rein	PC	A	E	G
BI	1.00	.04	.12*	.25**	.65**	.09	-.42**	-.21**	.74**
SE-M		1.00	.34**	.26**	.08	.12*	-.17**	-.38**	-.05
SE-PD			1.00	.36**	.19**	.06	-.48**	-.77**	.08
RE				1.00	.49**	.23**	-.34**	-.31**	.34**
Rein					1.00	.14**	-.35**	-.20**	.68**
PC						1.00	-.18**	-.12*	.06
A							1.00	.63**	-.37**
E								1.00	-.09
G									1.00
AK									
PK									
HO-1									
HO-2									
H-V1									
H-V2									
MC									

Note: * $p < .05$, ** $p < .01$ ($N = 371$)

Table 4.2 Correlations for predictor variables, covariates and behavioral intentions for individuals who *have use* and *have not used* protection for oral sex (Cont.).

	AK	PK	HO-1	HO-2	H-V1	H-V2	MC
BI	-.11*	-.06	.11*	.19**	.12*	.21**	.22**
SE-M	-.03	.06	.19**	.22**	.18**	.24**	-.17**
SE-PD	-.03	.04	.26**	.28**	.39**	.33**	-.21**
RE	.05	-.04	.33**	.35**	.44**	.30**	-.05
Rein	-.04	-.03	.19**	.25**	.25**	.23**	.14*
PC	-.05	-.01	.19**	.17**	.20**	.12*	-.01
A	.09	.03	-.21**	-.21**	-.32**	-.25**	.05
E	.07	.00	-.23**	-.25**	-.34**	-.29**	.23**
G	.04	-.01	.16**	.18**	.20**	.21**	.20**
AK	1.00	.11*	.07	-.00	.03	.04	-.02
PK		1.00	.02	-.02	.00	.00	-.11*
HO-1			1.00	.78**	.50**	.67**	-.06
HO-2				1.00	.54**	.81**	-.08
H-V1					1.00	.55**	-.22**
H-V2						1.00	-.15**
MC							1.00

Note: * $p < .05$, ** $p < .01$ ($N = 371$)

BI = Behavioral Intentions; SE-M = Self-efficacy Mechanics; SE-PD = Self-efficacy Partner's Disapproval; RE = Response efficacy; Rein = Reinforcement; PC = Perceived control; A = Anger regarding use of protection; E = Embarrassment regarding use of latex barriers; G = Guilt regarding use of protection; AK = Actual knowledge; PK = Procedural knowledge; HO-1 = Motivation for healthiness; HO-2 = Motivation to avoid unhealthiness; H-V1 = Value own health; H-V2 = Value other's health; MC = Mutual commitment.

Two of the covariates were significant (*value other's health* ($F_{(11, 306)} = 5.94$; $p < .001$; partial $\eta^2 = .18$) and intensity of mutual commitment ($F_{(11, 306)} = 4.14$; $p < .001$; partial $\eta^2 = .13$). After controlling for the effects of the covariates, the results revealed a multivariate main effect for the use of protection for oral sex ($F_{(11, 306)} = 4.05$; $p < .001$; partial $\eta^2 = .13$); there was no multivariate main effect for frame ($F_{(11, 306)} = .50$; $p = .91$; partial $\eta^2 = .02$). Univariate tests indicated significant differences between those who have use protection compared to those who have not on behavioral intentions ($F_{(1, 316)} = 24.55$; $p < .001$; partial $\eta^2 = .07$), self-efficacy partner's disapproval ($F_{(1, 316)} = 8.79$; $p <$

.01; partial $\eta^2 = .03$), response efficacy ($F_{(1, 316)} = 3.82$; $p < .05$; partial $\eta^2 = .01$), reinforcement of attitudes ($F_{(1, 316)} = 13.29$; $p < .001$; partial $\eta^2 = .04$), anger ($F_{(1, 316)} = 13.77$; $p < .001$; partial $\eta^2 = .04$), embarrassment ($F_{(1, 316)} = 21.40$; $p < .001$; partial $\eta^2 = .06$) and guilt ($F_{(1, 316)} = 12.20$; $p < .001$; partial $\eta^2 = .04$).

Closer examination of the means showed that individuals who have used ($M = 3.07$, $SD = .98$) protection for oral sex reported greater behavioral intentions to use protection than did individuals who have not used ($M = 2.39$, $SD = .77$) protection for oral sex. In addition, participants who reported previous use of protection for oral sex also reported less concern regarding partner's disapproval (i.e., self-efficacy regarding partner's disapproval) ($M = 4.20$, $SD = .77$), greater response efficacy ($M = 4.32$, $SD = .55$), reinforcement of attitudes ($M = 3.93$, $SD = .63$) and less embarrassment ($M = 1.80$, $SD = .74$), anger ($M = 2.17$, $SD = .75$), and greater guilt ($M = 3.14$, $SD = .75$) regarding the use of protection for oral sex compared to participants who have never used protection in the past ($M_{SEPartner'sDisapproval} = 3.85$, $SD_{SEPartner'sDisapproval} = .70$; $M_{ResponseEfficacy} = 4.17$, $SD_{ResponseEfficacy} = .49$; $M_{Reinforcement} = 3.56$, $SD_{Reinforcement} = .61$; $M_{Embarrassment} = 2.32$, $SD_{Embarrassment} = .67$; $M_{Anger} = 2.60$, $SD_{Anger} = .67$; $M_{Guilt} = 2.76$, $SD_{Guilt} = .62$) (see Table 4.3). Hypothesis one was supported.

Table 4.3. Use of protection versus non-use of protection Means and Standard Deviations on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner's Disapproval, Response Efficacy, Reinforcement, Perceived Control, Anger, Embarrassment, and Guilt.

	Have Used		Have Not Used	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Behavioral Intention	3.07	.98	2.39	.77
Self-Efficacy Mechanics	4.03	.91	3.86	.84
Self-Efficacy Partner's Disapproval	4.20	.77	3.85	.70
Response Efficacy	4.32	.55	4.17	.49
Reinforcement	3.93	.63	3.56	.61
Perceived Control	3.55	.50	3.55	.49
Anger	2.17	.75	2.60	.67
Embarrassment	1.80	.74	2.32	.67
Guilt	3.14	.75	2.76	.62
Actual Knowledge	8.96	.85	9.05	.91
Procedural Knowledge	4.99	.57	4.83	.64

$F_{(11, 306)} = 4.05; p < .001; \text{partial } \eta^2 = .13.$

Research question one. Research question one asked whether men and women would differ in their responses. To answer this question a MANCOVA was conducted with behavioral intentions to use protection, self-efficacy (i.e., the *mechanics* of using and *partner's disapproval* regarding use of protection), response efficacy, perceived control, reinforcement of attitudes, anger, embarrassment, and guilt as the dependent variables and sex as the independent variable, while controlling for health orientation and intensity of mutual commitment (see Tables 4.1 and 4.2 for correlations).

Two of the covariates were significant (*value other's health* ($F_{(11, 306)} = 5.34; p < .001; \text{partial } \eta^2 = .16$) and intensity of mutual commitment ($F_{(11, 306)} = 5.13; p < .001; \text{partial } \eta^2 = .16$). After controlling for the effects of the covariates, results revealed a multivariate main effect for the sex ($F_{(11, 306)} = 7.74; p < .001; \text{partial } \eta^2 = .22$).

Univariate tests indicated significant differences between men and women on behavioral intentions ($F_{(1, 316)} = 7.75; p < .01; \text{partial } \eta^2 = .02$) and self-efficacy mechanics ($F_{(1, 316)} = 32.26; p < .001; \text{partial } \eta^2 = .09$), such that women ($M = 2.56, SD = .83$) reported greater intentions to use protection, but were less efficacious in terms of the ‘mechanics’ of using protection ($M = 3.67, SD = .91$) compared to men ($M_{BehavioralIntentions} = 2.31, SD_{BehavioralIntentions} = .83; M_{SE-Mechanics} = 4.17, SD_{SE-Mechanics} = .69$). Univariate tests also revealed significant differences between men and women on self-efficacy partner’s disapproval ($F_{(1, 316)} = 7.50; p < .01; \text{partial } \eta^2 = .02$), reinforcement of attitudes ($F_{(1, 316)} = 7.95; p < .01; \text{partial } \eta^2 = .03$), anger ($F_{(1, 316)} = 11.16; p < .001; \text{partial } \eta^2 = .03$), guilt ($F_{(1, 316)} = 6.07; p < .05; \text{partial } \eta^2 = .02$) and actual knowledge ($F_{(1, 316)} = 6.86; p < .01; \text{partial } \eta^2 = .02$)

Closer inspection of the means indicate that women ($M = 3.97, SD = .71$) reported greater perceptions of self-efficacy regarding partner’s disapproval (i.e., less concerned with rejection) than men ($M = 3.77, SD = .69$). Additionally, women reported feeling less angry ($M = 2.44, SD = .64$), felt more guilty ($M = 2.87, SD = .64$), had less actual knowledge ($M = 8.90, SD = .91$), and that the message reinforced ($M = 3.67, SD = .57$) the notion of using protection for oral sex compared to men ($M_{Anger} = 2.69, SD_{Anger} = .73; M_{Guilt} = 2.70, SD_{Guilt} = .66; M_{ActualKnowledge} = 9.17, SD_{ActualKnowledge} = .89; M_{Reinforcement} = 3.49, SD_{Reinforcement} = .67$).

Table 5.1. Multivariate Analysis of Variance: Sex of Target Sex on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner's Disapproval, Response Efficacy, Reinforcement, Perceived Control, Anger, Embarrassment, Guilt, Actual and Procedural Knowledge.

Sex	df	<i>F</i>	<i>p</i>	η^2
Behavioral Intention	1	7.75	.01	.02
Self-Efficacy Mechanics	1	32.26	.00	.09
Self-Efficacy Partner's Disapproval	1	7.50	.01	.02
Response Efficacy	1	4.28	.04	.01
Reinforcement	1	7.95	.01	.03
Perceived Control	1	1.00	.32	.00
Anger	1	11.16	.00	.03
Embarrassment	1	2.99	.09	.01
Guilt	1	6.07	.01	.02
Actual Knowledge	1	6.86	.01	.02
Procedural Knowledge	1	3.53	.06	.01

Table 5.2. Means and Standard Deviations for Men and Women on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner's Disapproval, Response Efficacy, Reinforcement, Perceived Control, Anger, Embarrassment, Guilt, Actual and Procedural Knowledge.

	Men		Women	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Behavioral Intention	2.31	.83	2.56	.83
Self-Efficacy Mechanics	4.17	.69	3.67	.91
Self-Efficacy Partner's Disapproval	3.78	.69	3.97	.71
Response Efficacy	4.12	.55	4.22	.45
Reinforcement	3.49	.67	3.67	.57
Perceived Control	3.59	.51	3.54	.48
Anger	2.69	.73	2.44	.64
Embarrassment	2.34	.68	2.21	.70
Guilt	2.70	.66	2.87	.64
Actual Knowledge	9.17	.89	8.90	.91
Procedural Knowledge	4.92	.60	4.78	.66

$F_{(11, 306)} = 7.74; p < .001; \text{partial } \eta^2 = .22.$

Hypothesis two. In view of the primary focus on the process by which framing messages achieves effects, and the rationale associated with segmenting audiences

associated with biological sex, health value orientation, and relationships type, the second hypothesis was evaluated with a hierarchical regression. More specifically, a hierarchical forward sequential method was conducted to test the predictive ability of certain audience characteristics, guilt, anger, knowledge, perceived behavioral control and self- and response efficacy on behavioral intentions to use protection for oral sex for individuals who were exposed to a gain-framed guilt appeal message, and had not used protection in the past. In response to the question that asked participants what type of relationship they were in, those who responded “a committed, exclusive relationship” were selected for a test of the second hypothesis. Additionally, only individuals who never used protection for oral sex (i.e., nonusers) and were exposed to a gain-framed guilt appeal message were selected to test hypothesis two. This would be the appropriate strategy in segmenting this group for health promotion based on the need to address both the lack of experience with protection and their relational status.

From the manipulation checks items, there were no differences between the gain and control conditions, therefore the two were collapsed for these analyses. Pearson correlations were conducted to measure the relation between the predictor variables and the behavioral intentions (see Table 6.1 and 6.2) for individuals in committed relationships, who have never used protection for oral sex and were exposed to a gain-framed guilt appeal message.

Table 6.1 Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a gain-framed guilt appeal message.

	BI	SE-M	SE-PD	RE	PC	A	E	G
BI	1.00	-.09	-.04	.25**	.05	-.32**	-.13	.73***
SE-M		1.00	.25**	.05	.12	-.18*	-.23*	-.05
SE-PD			1.00	.35***	.27**	-.47***	-.72***	-.02
RE				1.00	.41***	-.33***	-.20*	.36***
PC					1.00	-.30***	-.25**	.10
A						1.00	.66***	-.21*
E							1.00	.05
G								1.00
AK								
PK								
HO-1								
HO-2								
H-V1								
H-V2								
MC								

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ ($N = 85$)

Table 6.2 Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a gain-framed guilt appeal message (Cont.)

	AK	PK	HO-1	HO-2	H-V1	H-V2	MC
BI	-.11	.19*	.15	.25**	.11	.18*	-.02
SE-M	.00	.12	.15	.14	.19*	.21*	.00
SE-PD	.09	-.02	.26**	.17	.44***	.24**	.00
RE	.06	.00	.35***	.32***	.54***	.36***	-.02
PC	-.02	.01	.22*	.19*	.38***	.29***	-.09
A	.11	.23*	-.08	-.10	-.29***	-.20*	-.02
E	.00	.08	-.15	-.13	-.35***	-.18*	.05
G	.07	-.01	.21*	.19*	.16	.21*	.10
AK	1.00	-.07	.06	.16	.05	.17	-.01
PK		1.00	.06	-.02	.03	.01	.01
HO-1			1.00	.72***	.52***	.59***	-.03
HO-2				1.00	.57***	.80***	-.04
H-V1					1.00	.58***	-.10
H-V2						1.00	-.07
MC							1.00

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, ($N = 85$)

Sex of the target was entered into the first block. The four dimensions of health orientation (i.e., motivation to avoid unhealthiness [HO-1]; motivation for healthiness [HO-2]; value other's health [HV-1]; value own health [HV-2]) were entered into the second block. Intensity of mutual commitment was entered into the third block. Guilt and embarrassment were entered in the fourth block, anger, in the fifth, as a way to partially test RQ2A and test RQ2B. Actual knowledge [AK] and procedural knowledge [PK] were entered into the sixth block, perceived behavioral control in the seventh block and [PC] and self-efficacy mechanics [SE-M], self-efficacy partner's disapproval [SE-PD] and response efficacy [RE] were entered into the eighth block.

Sex was a significant predictor of intentions to use protection ($F_{(1, 83)} = 7.38, p < .01, R^2_{adj} = .07; \beta = .29, t = 2.72, p < .01$) and accounted for approximately 8% of the variance, as well as partially answering RQ2A. The health orientation variables were entered in the second block ($F_{(5, 79)} = 2.38, p = .05, R^2_{adj} = .08$) and were significant. Intensity of mutual commitment was entered in the third block ($F_{(6, 78)} = 1.98, p = .08, R^2_{adj} = .07$) and was not a significant contributor to the regression equation. Guilt and embarrassment were entered into the fourth block ($F_{(8, 76)} = 15.83, p < .001, R^2_{adj} = .59$) and emerged as significant predictors. Guilt accounted for 48% of the variance, $\beta = .76$ ($t = 9.89, p < .001$) and embarrassment accounted for 3.6% of the variance $\beta = -.21$ ($t = -2.74, p < .01$). Anger was entered into the fifth block ($F_{(9, 75)} = 14.49, p < .001, R^2_{adj} = .59$) and did not emerge as a significant predictor ($\beta = -.14$ ($t = -1.43, p = .16$)). The sixth block contained actual and procedural knowledge ($F_{(11, 73)} = 14.48, p < .001, R^2_{adj} = .64$). Actual knowledge contributed approximately 4% of the variance, ($\beta = -.20, t = -2.97,$

$p < .01$) and procedural knowledge accounted for 1.7% of the variance, ($\beta = -.14$, $t = -2.05$, $p < .04$). The last two blocks did not significantly contribute to the regression equation. See Table 6.3 for a summary of the results. Hypothesis two was only partially supported, such that, sex, guilt, embarrassment, and actual knowledge contributed to intentions to use protection for oral sex.

Table 6.3. Table Hierarchical Regression Predicting Behavioral Intentions for those in committed relationships exposed to a Gain-framed guilt appeal.

Predictor Variables	Part Correlation	B	SE B	β	t	Block ΔR^2
Block 1						
Sex	.29	.44	.16	.29	2.72**	.08
Block 2						.05
HO – 1	-.05	-.11	.22	-.08	-.49	
HO – 2	.13	.34	.28	.26	1.24	
HV – 1	-.03	-.07	.22	-.04	-.32	
HV – 2	.03	.07	.28	.05	.25	
Block 3						.00
Mutual Commitment	-.04	-.28	.74	-.04	-.37	
Block 4						.49
Guilt	.69	.92	.09	.76	9.89***	
Embarrassment	-.19	-.24	.09	-.21	-2.74**	
Block 5						.01
Anger	-.10	-.16	.11	-.14	-1.43	
Block 6						.05
Actual Knowledge	-.20	-.17	.06	-.20	-2.97**	
Procedural Knowledge	-.13	-.21	.10	-.14	-2.05*	
Block 7						.00
Perceived Behavioral Control	-.05	-.09	.12	-.05	-.72	
Block 8						.02
SE – Mechanics	-.03	-.03	.07	-.03	-.47	
SE – Partner’s Disapproval	-.13	-.24	.12	-.21	-1.92	
Response Efficacy	.01	.02	.12	.01	.15	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ ($N = 85$)

Research question 2A. Research question two asked if there were differences between men and women on self-efficacy mechanics and partner's disapproval, response efficacy, perceived behavioral control, behavioral intentions, anger, embarrassment, and guilt. Only individuals who reported they were in "a committed, exclusive relationship," were 'nonusers' and were exposed to a gain-framed guilt appeal message were selected to answer research question 2A. The multivariate main effect for sex was significant ($F_{(8, 84)} = 2.84; p < .01; \text{partial } \eta^2 = .21$). Univariate tests indicated significant differences between men and women on behavioral intentions ($F_{(1, 91)} = 4.58; p < .05; \text{partial } \eta^2 = .05$) and response efficacy ($F_{(1, 91)} = 8.12; p < .01; \text{partial } \eta^2 = .08$), such that women ($M = 2.33, SD = .82$) reported greater intentions to use protection and higher response efficacy ($M = 4.29, SD = .45$) compared to men ($M_{BehavioralIntentions} = 1.97, SD_{BehavioralIntentions} = .71; M_{ResponseEfficacy} = 3.96, SD_{ResponseEfficacy} = .69$). Univariate tests also revealed significant differences between men and women on self-efficacy mechanics ($F_{(1, 91)} = 5.58; p < .05; \text{partial } \eta^2 = .06$). Inspection of the means indicate that men ($M = 4.26, SD = .64$) feel more confident in their ability to use protection than women ($M = 3.87, SD = .86$) (see Table 7.1).

Table 7.1. Means and Standard Deviations for Men and Women in committed relationships exposed to a Gain-framed guilt appeal message on Behavioral Intentions, Self-Efficacy Mechanics, Self-Efficacy Partner's Disapproval, Response Efficacy, Perceived Control, Anger, Embarrassment, and Guilt.

	Men		Women	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Behavioral Intention	1.97	.71	2.33	.82
Self-Efficacy Mechanics	4.26	.64	3.87	.86
Self-Efficacy Partner's Disapproval	3.85	.71	4.10	.63
Response Efficacy	3.96	.69	4.29	.45
Perceived Control	3.21	.67	3.62	.41
Anger	2.67	.73	2.57	.62
Embarrassment	2.25	.70	2.15	.66
Guilt	2.49	.65	2.74	.63

$F_{(8, 84)} = 2.84; p < .01; \text{partial } \eta^2 = .21 (n = 93).$

Research question 2B. Research question 2B asked if embarrassment and anger contributed to the prediction of behavioral intentions. Once again, only individuals who reported they were in “a committed, exclusive relationship,” were ‘nonusers’ and were exposed to a gain-framed guilt appeal message, were selected to answer research question 2B. Embarrassment, which was entered into the fourth block, emerged as a significant predictor and accounted for 3.6% of the variance $\beta = -.21 (t = -2.74, p < .01)$ (see Table 6.3).

Hypothesis three. A hierarchal forward sequential method was conducted to test the predictive ability of certain audience characteristics, guilt, anger, embarrassment, knowledge, perceived behavioral control and self- and response efficacy on behavioral intentions to use protection for oral sex for individuals who were exposed to a loss-framed guilt appeal message, and had not used protection in the past. More specifically,

'nonusers' who responded they were in "a committed, exclusive relationship" and were exposed to a loss-framed guilt appeal were selected for a test of the third hypothesis. Pearson correlations were conducted to measure the relation between the predictor variables and the behavioral intentions (see Table 8.1 and 8.2) for individuals in committed relationships, who have never used protection for oral sex and were exposed to a loss-framed guilt appeal message.

Sex of the target was entered into the first block. The four dimensions of health orientation (i.e., motivation to avoid unhealthiness [HO-1]; motivation for healthiness [HO-2]; value other's health [HV-1]; value own health [HV-2]) were entered into the second block. Intensity of mutual commitment was entered into the third block. Guilt was entered in the fourth block, anger in the fifth block, and embarrassment in the sixth block. Actual knowledge [AK] and procedural knowledge [PK] were entered into the seventh block, perceived behavioral control in the eighth block and [PC] and self-efficacy mechanics [SE-M], self-efficacy partner's disapproval [SE-PD] and response efficacy [RE] were entered into the ninth block.

Table 8.1. Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a loss-framed guilt appeal message.

	BI	SE-M	SE-PD	RE	PC	A	E	G
BI	1.00	-.01	.26*	.14	-.32	-.14	-.24	.77**
SE-M		1.00	.37*	.53**	.56**	-.10	-.30*	-.09
SE-PD			1.00	.34*	.18	-.57**	-.78**	.27*
RE				1.00	.43*	-.18	-.45**	.22
PC					1.00	-.16	-.24*	.14
A						1.00	.74**	-.30*
E							1.00	-.22
G								1.00
AK								
PK								
HO-1								
HO-2								
H-V1								
H-V2								
MC								

Note: * $p < .05$, ** $p < .01$ ($N = 56$)

Table 8.2. Correlations for predictor variables and behavioral intentions for Individuals in committed relationships that have never used protection for oral sex and were exposed to a loss-framed guilt appeal message (Cont.)

	AK	PK	HO-1	HO-2	H-V1	H-V2	MC
BI	-.21	-.03	-.10	.13	.14	.06	-.07
SE-M	-.02	-.02	.26*	.31*	.22*	.29*	.12
SE-PD	-.02	-.05	.16	.19	.31*	.22*	-.21
RE	-.05	.01	.31*	.46**	.43**	.41**	.22*
PC	-.05	-.06	.30*	.38*	.35*	.33*	.08
A	.08	.03	-.22*	-.28*	-.38*	-.21	.30*
E	.08	-.03	-.34*	-.38*	-.47**	-.41**	.13
G	-.10	.12	.00	.13	.09	.18	-.13
AK	1.00	.40***	.05	-.11	-.23*	-.06	-.04
PK		1.00	-.13	-.13	-.18	.06	-.28*
HO-1			1.00	.73**	.49**	.66**	.02
HO-2				1.00	.61**	.75**	.05
H-V1					1.00	.55**	-.03
H-V2						1.00	-.09
MC							1.00

Note: * $p < .05$, ** $p < .01$ ($N = 56$)

Sex was not a significant predictor of intentions to use protection ($F_{(1, 54)} = 1.93$, $p = .17$, $R^2_{adj} = .02$). The health orientation variables were entered in the second block ($F_{(5, 50)} = 1.46$, $p = .22$, $R^2_{adj} = .04$) and intensity of mutual commitment was entered in the third block ($F_{(6, 49)} = 1.26$, $p = .29$, $R^2_{adj} = .03$) and none of these variables emerged as significant predictors. Guilt ($F_{(7, 48)} = 12.99$, $p < .001$, $R^2_{adj} = .60$) and anger ($F_{(8, 47)} = 12.63$, $p < .001$, $R^2_{adj} = .63$), which were entered into blocks four and five respectively, each emerged as significant predictors. Guilt accounted for 60.8% of the variance, $\beta = .76$ ($t = 8.51$, $p < .001$) and anger accounted for 3% of the variance $\beta = -.21$ ($t = -2.04$, $p < .05$). Embarrassment ($F_{(9, 46)} = 11.19$, $p < .001$, $R^2_{adj} = .63$), which was entered into the sixth block was not a significant contributor ($\beta = .10$, $t = .75$, $p = .46$). The last three remaining blocks did not significantly contribute to the regression equation. See Table 8.3 for a summary of the results. Hypothesis three was only partially supported. That is, for individuals in committed relationships who have never used protection for oral sex and were exposed to a loss-framed guilt appeal, both guilt and anger emerged as significant predictors. Guilt motivates people to want to change their behaviors and anger has the inverse relationship.

Table 8.3. Table Hierarchical Regression Predicting Behavioral Intentions for those in committed relationships exposed to a Loss-framed guilt appeal.

Predictor Variables	Partial Correlation	B	SE B	β	t	Block ΔR^2
Block 1						
Sex	.19	.30	.22	.19	1.39	.03
Block 2						.09
HO – 1	-.27	-.63	.32	-.40	-1.98	
HO – 2	.21	.46	.31	.35	1.48	
HV – 1	.09	.20	.31	.11	.65	
HV – 2	-.00	-.00	.26	-.00	-.02	
Block 3						.00
Mutual Commitment	-.08	-.33	.57	-.08	-.58	
Block 4						.52
Guilt	.78	.94	.11	.76	8.51***	
Block 5						.03
Anger	-.18	-.22	.11	-.21	-2.04*	
Block 6						.00
Embarrassment	.06	.12	.16	.10	.75	
Block 7						.01
Actual Knowledge	-.05	-.06	.09	-.06	-.63	
Procedural Knowledge	-.04	-.07	.14	-.05	-.49	
Block 8						.01
Perceived Behavioral Control	.01	.17	.15	.11	1.19	
Block 9						.01
SE – Mechanics	.07	-.06	.09	-.06	-.65	
SE – Partner's Disapproval	-.03	-.07	.14	-.05	-.46	
Response Efficacy	-.09	.17	.15	.11	1.19	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ ($N = 56$)

Hypothesis four. A hierarchal forward sequential method was conducted to test the predictive ability of certain audience characteristics, anger, embarrassment, guilt, knowledge, perceived behavioral control and self- and response efficacy on behavioral intentions to use protection for oral sex for individuals who were exposed to either a gain-framed or loss-framed guilt appeal message, and had not used protection in the past. The gain and control conditions were collapsed because they were not found to be perceived by the participants as significantly different from one another.

If individuals reported that they were either in one of the following three categories: (a) “committed, non-exclusive (i.e., you both can see other people) relationship,” (b) “casually dating, one person,” or (c) “casually dating, multiple people,” then they were collapsed into the “non-committed relationship” category and were selected for a test of the fourth hypothesis. Participants that self-identified into one of the above categories did not complete the intensity of mutual commitment measure. In addition, only individuals who never used protection for oral sex (i.e., nonusers) were selected for a test of the fourth hypothesis. Pearson correlations were conducted to measure the relation between the predictor variables and the behavioral intentions (see Table 9.1 and 9.2) for individuals in non-committed relationships, who have never used protection for oral sex, regardless of message frame.

Table 9.1. Correlations for predictor variables and behavioral intentions for Individuals in non-committed relationships that have never used protection for oral sex.

	BI	SE-M	SE-PD	RE	PC	A	E	G
BI	1.00	.01	.02	.25**	.05	-.41***	-.08	.60***
SE-M		1.00	.37***	.34***	.06	.07	-.33**	-.04
SE-PD			1.00	.24*	-.02	-.37***	-.77**	-.04
RE				1.00	.28**	-.26**	-.22*	.35***
PC					1.00	-.08	-.12	-.05
A						1.00	.53***	-.19*
E							1.00	.13
G								1.00
AK								
PK								
HO-1								
HO-2								
H-V1								
H-V2								

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ ($N = 76$)

Table 9.2. Correlations for predictor variables and behavioral intentions for Individuals in non-committed relationships that have never used protection for oral sex (Cont.)

	AK	PK	HO-1	HO-2	H-V1	H-V2
BI		.01	.11	.09	.22*	.33**
SE-M		.06	.18	.19*	.15	.19*
SE-PD		.23*	.01	.14	.26**	.22*
RE		-.05	.48***	.48***	.42***	.43***
PC		-.07	.20*	.22*	.07	.09
A		-.07	-.15	-.15	-.17	-.19
E		-.08	-.14	-.12	-.28**	-.13
G		.06	.25*	.18	.35***	.29**
AK		.21*	.08	.00	-.02	.04
PK		1.00	.10	.14	.14	.13
HO-1			1.00	.85***	.57***	.69***
HO-2				1.00	.52***	.75***
H-V1					1.00	.58***
H-V2						1.00

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ ($N = 76$)

Message frame was entered into the first block. Sex of the target was entered into the second; the four dimensions of health orientation (i.e., motivation to avoid unhealthiness [HO-1]; motivation for healthiness [HO-2]; value other's health [HV-1]; value own health [HV-2]) were entered into the third block. In the fourth, fifth, and sixth blocks were anger, embarrassment and guilt, respectively. Actual knowledge [AK] and procedural knowledge [PK] were entered into the seventh block, and perceived behavioral control, self-efficacy mechanics [SE-M], self-efficacy partner's disapproval [SE-PD] and response efficacy [RE] were entered into the eighth block.

The variables that were entered into the two blocks: (a) frame ($F_{(1, 74)} = .98, p = .32, R^2_{adj} = .00$) and (b) sex ($F_{(2, 73)} = .52, p = .56, R^2_{adj} = -.01$) were not significant predictors. The health orientation variables were entered into the third block ($F_{(6, 69)} = 2.36, p = .02, R^2_{adj} = .12$). *Motivation to avoid unhealthiness* did not account for any variance, $\beta = -.03$ ($t = -.16, p = .79$); *motivation for healthiness* accounted for 3.2% of the variance, $\beta = -.38$ ($t = -1.62, p = .11$); *value other's health* accounted for roughly .6%, $\beta = .10$ ($t = .71, p = .48$); and *value own health* accounted for 12.3% of the variance, $\beta = .57$ ($t = 3.22, p < .01$). Anger was entered in the fourth block ($F_{(7, 68)} = 4.25, p < .001, R^2_{adj} = .23$) and accounted for 11.6% of the variance, $\beta = -.36$ ($t = -3.41, p < .001$) and embarrassment ($F_{(8, 67)} = 4.26, p = .001, R^2_{adj} = .26$), which was entered in the fifth block accounted for roughly 3.2% of the variance, $\beta = .23$ ($t = 1.82, p = .07$). Guilt ($F_{(9, 66)} = 7.87, p < .001, R^2_{adj} = .45$) was entered into the sixth block and did contribute significantly to the regression equation. Guilt accounted for 18% of the variance in intentions to use protection for oral sex, $\beta = .51$ ($t = 4.97, p < .001$). The last two

remaining blocks did not significantly contribute to the regression equation. See Table 9.3 for a summary of the results. Hypothesis four was only partially supported. That is, for individuals in non-committed relationships who have never used protection for oral sex, regardless of message frame, anger, embarrassment, and guilt emerged as significant predictor.

Table 9.3. Table Hierarchical Regression Predicting Behavioral Intentions for those in non-committed relationships.

Predictor Variables	Part Correlation	B	SE B	β	t	Block ΔR^2
Block 1						.01
Frame	-.12	-.17	.17	-.12	-.99	
Block 2						.00
Sex	.03	.05	.17	.03	.27	
Block 3						.17
HO – 1	-.02	-.04	.27	-.03	-.16	
HO – 2	-.18	-.42	.26	-.38	-1.62	
HV – 1	.08	.15	.21	.10	.71	
HV – 2	.35	.61	.19	.57	3.22**	
Block 4						.12
Anger	-.34	-.39	.12	-.36	-3.41***	
Block 5						.03
Embarrassment	.18	.25	.14	.23	1.82	
Block 6						.18
Guilt	.43	.62	.13	.51	4.97***	
Block 7						.00
Actual Knowledge	-.01	-.01	.07	-.01	-.14	
Procedural Knowledge	-.04	-.05	.09	-.05	-.51	
Block 8						.03
Perceived Behavioral Control	.07	.12	.15	.08	.84	
SE – Mechanics	.08	.09	.10	.11	.88	
SE – Partner's Disapproval	-.15	-.30	.18	-.28	-1.71	
Response Efficacy	.00	.00	.23	.00	.01	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ ($N = 76$)

Chapter 4

Motivating people to engage in healthy behaviors and/or less risky behaviors has been, and continues to be, a challenge for researchers and health educators. The context of sexual health involves its own set of unique challenges, given the cultural, social, and moral spheres that shape our sexual behaviors and practices. Knowledge of pregnancy and disease prevention alone are not enough to influence behavior. Many people know that regular and consistent condom use, along with limiting the number of sexual partners, can significantly decrease chances of contracting a sexually transmitted infection. Regardless of present statistics concerning contraction/ transmission rates, individuals continue to engage in unprotected sexual activities. This dissertation attempts to add to the health communication literature by providing significant theoretical and practical contributions to the message design process.

This research was guided by two overarching goals related to message design. First, a guilt appeal was integrated into prospect theory to examine the effects and effectiveness of such a negative appeal on message processing. Second, the role of affect on individual predisposition factors such as self- and response efficacy, perceived behavioral control, and behavioral intentions to use protection for oral sex were assessed. Over the years, persuasion scholars have noted the importance and potential influence of affect on message processing (e.g., Dillard & Peck, 2001). More recently, attention has been directed toward examining “the role of receiver affect, including initial states and traits, as related to cognitive, affective, and behavioral outcomes in health campaigns” (Parrott, Egbert Anderton, & Sefcovic, 2002, p. 652). One goal of this research was to

address this concern by incorporating negative affect (i.e., guilt appeal) into Prospect Theory, while also considering guilt, embarrassment, and anger as possible explanations of message acceptance (or rejection).

Summary of Findings

Individuals who have used protection for oral sex in the past tend to hold more favorable attitudes toward condoms and are more likely to use protection in the future, when compared to individuals who have not used protection. Therefore, it was important to examine perceptions of ‘users’ to ‘nonusers’ on behavioral intentions, self- and response efficacy, perceived behavioral control, reinforcement of attitudes, anger, embarrassment, and guilt, as well as, health orientation and intensity of relational commitment. As expected, there were differences between ‘users’ and ‘nonusers’ on behavioral intentions, self-efficacy mechanics and partner’s disapproval, response efficacy, reinforcement of attitudes, anger, guilt and actual knowledge.

‘Users’ indicated greater intentions to use protection for oral sex in the future compared to ‘nonusers.’ Additionally, ‘users’ were less concerned with what their partners’ thought of them, they saw the utility of carrying the recommended behavior and their attitudes toward use of protection for oral sex were reinforced compared to ‘nonusers.’ Not surprisingly, ‘nonusers’ reported more anger and less feelings of guilt regarding the use of protection for oral sex than ‘users.’ This raises the question of whether feeling guilty about the thought of *not* using protection motivate ‘users’ to continue using.

It was not surprising to note there were sex differences on several variables such as self-efficacy partner's disapproval, but the direction of this difference was a bit surprising. In other words, men were more concerned about what their partners would think of them or with being rejected if they insisted on using protection for oral sex, compared to women. This could be because fellatio tends to be a more common practice among adolescents and young adults (Remez, 2002) and hence, there may be no need to discuss protective behaviors. Also, it may go against traditional sex roles for men to introduce the use of protection and potentially be very face threatening if a man suggests that a woman use a barrier before either performing fellatio on him, or before he will perform cunnilingus on her.

The second hypothesis examined the predictive ability of certain audience characteristics, guilt, anger, knowledge, and self- and response efficacy on behavioral intentions to use protection for individuals in committed relationships that had never used protection for oral sex. Guilt and anger were both significant predictors of behavioral intentions, accounting for 46% and 4% of the variance, respectively. As mentioned earlier, actual and procedural knowledge also emerged as significant predictors, but there was an inverse relationship between actual and procedural knowledge and behavioral intentions. Results indicate that the more individuals know about STIs, the less likely they are to use protection for oral sex in the future. This finding could be related to partner selection and it could also be due to the knowledge that nonintercourse acts, such as oral sex, are considered 'low risk.' With oral sex there may be no need for the use of

protection *because* there is no risk of pregnancy involved and hence, individuals may not even link the need for protection with the act of oral sex.

The primary focus of this research was on the process by which framing messages achieves effects and therefore, the third hypothesis addressed the predictive ability of certain audience characteristics, guilt, anger, embarrassment, knowledge, and self- and response efficacy on behavioral intentions to use protection for individuals who have not used protection for oral sex and were exposed to a *loss*-framed guilt appeal. Behavioral intentions to use protection for oral sex should be predicted by the same series of variables for individuals exposed to a *gain*-framed guilt appeal. However, it was hypothesized that the order in which different emotions would influence behavioral intentions for individuals exposed to a *loss*-framed guilt appeal would vary slightly from those exposed to a *gain*-framed guilt appeal. The results for hypothesis three were similar to hypothesis two, in that guilt was a significant predictor; in the *loss*-framed guilt appeal, guilt accounted for slightly more variance (60.8%) than in the *gain*-framed guilt appeal condition (48%).

Hypothesis four examined the processes by which *non-committed* individuals would respond to the messages. Once again, anger and guilt were significant predictors; anger was inversely related and was guilt directly related to intentions to use protection. Contradictory to the literature on guilt and how it is generally experienced in close relationships, guilt was still significant for individuals in *non-committed* relationships.

Integration of Affect into Prospect Theory: Effects of Guilt Appeals

The act of being physically intimate with someone can be purely physical, devoid of any emotional entanglements, or it can be incredibly emotional. Relatedly, messages geared toward safer sex behaviors may trigger a host of different emotions from embarrassment, fear, anger, to excitement. The decision to combine the use of a guilt appeal with Prospect Theory was two-fold. First, guilt appeals have been under utilized compared to fear appeals (Huhmann & Brotherton, 1997) and may be particularly effective in certain contexts. More specifically, guilt is a negative emotion that can mobilize individuals to take action and repair a violation (or transgression) to reduce feelings of guilt. According to Vangelisti et al.'s (1991) study, most individuals did not have difficulty recalling a time when they were made to feel guilty or had made others feel guilty, which illustrates how common feelings of guilt are experienced in close relationships. Second, given the dyadic nature of sexual behaviors and the fact that sexual decision making is not always a rational process, it is important to use a theoretical framework that could address the cognitive and affective components of message processing.

This project was not intended to compare gain- to loss-framed messages, but rather to examine the processes by which different segments of the audience respond to positively or negatively framed messages when combined with a negative appeal (i.e., guilt appeal). As stated previously, audience segmentation can be a valuable tool to examine and test theoretical constructs on seemingly similar people, with subtle differences, which can lead to theory refinement (e.g., Parrott et al., 2004). Failure to

identify and acknowledge subtle differences within a particular audience can cost researchers and organizations time, money, and resources on projects that fails to lead to desirable outcomes (i.e., increase in knowledge, change in attitudes or behaviors, etc.). Certain audience characteristics (i.e., health orientation, sex, performance of recommended response, relationship type) could influence *how* participants respond to either a gain- or a loss-framed message.

Within the sexual health context, it remains unclear whether individuals think of health information about safer sex (e.g., to use protection) as a *health* behavior versus a *sexual* behavior. As a result, the research on message framing that delineates the effectiveness of a gain- versus loss-framed message is not very meaningful. Similarly, Finney and Iannotti (2002) noted the difficulty in operationalizing concepts of gain and loss into practical health recommendations. Findings from this project seem to indicate that the underlying processes appear to be the same regardless of the frame, however, the role of different emotions may vary based on the type of frame (i.e., gain versus loss) participants were exposed to.

Message Framing and Guilt Arousal

Guilt is one of the self-conscious emotions that can motivate people to take action. Individuals tend to feel guilty where there is some sort-of perceived transgression (e.g., violated a personal code of conduct) and to alleviate these feelings, individuals will make reparations (i.e., “right the wrong”). As a result, guilt may be an emotion that can be channeled in constructive ways to motivate individuals to follow the recommended course of action. Findings from this study illustrate that regardless of message frame,

guilt is a strong predictor of intentions to use protection for oral sex. These results shed light on the potential influence and value of emotional appeals and of arousing particular emotions within messages. It was somewhat surprising to note that guilt was not related to self- or response efficacy. In other words, individuals' perceived skill level (i.e., talking with partner about use and being able to use protection) and their sense that the use of protection for oral sex could prevent or reduce contraction/ transmission of STIs was not related to guilt.

Another surprising and unexpected result was the emergence of guilt as a significant predictor for behavioral intentions for the *non-committed* individuals, regardless of message frame. The literature on guilt and persuasion and guilt interpersonal relationships underscores the notion that guilt is a developmentally complex emotion typically experienced in close relationships; these feelings are not engendered among strangers (e.g., Vangelisti et al. 1991). However, guilt still emerged as a significant predictor of behavioral intentions for *non-committed* individuals (i.e., 18% compared to 48% and 60.8%, *committed-gain*-framed and *committed-loss*-framed, respectively).

Overall, the findings from this project highlight the role of guilt appeals and of arousing guilt in health messages. Message designers must be careful to note the difference between an emotional appeal and the elicitation of specific discrete emotions. One of the goals of this project was to keep the presence of a guilt appeal constant across all message conditions. However, the presence of a guilt appeal across conditions does not guarantee that the same level or intensity of guilt, or other emotions will be aroused.

Message designers need to be aware of the elicitation of other emotions and how they may influence message processing, as will be discussed in the next sections.

Message Framing and Anger Arousal

Anger is typically elicited when individuals are faced with obstacles that impede goal attainment or when they feel demeaned or offended (Nabi, 2002). There are numerous reasons why individuals choose not to use condoms for vaginal intercourse such as reduced sensation. Additionally, some women may be hesitant to introduce or request the use of condoms for fear of rejection and/or physical violence (Neighbors & O'Leary, 2003; Wingwood & DiClemente, 1997). Hence it could be argued that many individuals might be resistant to the notion of using protection for oral sex. Messages that advocate the use of protection for this nonintercourse act could anger and offend people.

The primary objective of this study was to integrate a guilt appeal into Prospect Theory and ascertain the influence of guilt, as well, as anger and embarrassment on behavioral intentions to use protection for oral sex. The messages were not specifically designed to elicit anger, and yet, given the potential sensitive nature of sexual health information and messages, it seemed likely that anger might be aroused. Additionally, a few studies have found a positive relation between anger and attitude change. More specifically, when anger is intentionally induced there appears to be a positive association between anger and the intended outcome. Conversely, unintentionally induced anger is negatively correlated with the intended outcome (i.e., attitude change) (e.g., Nabi, 1998a as cited in Nabi, 2002).

The order of variable entry varied slightly for hypotheses two, three, and four based on particular audience characteristics and the respective message conditions; such that anger was entered after guilt and embarrassment for H2, it was entered directly after guilt for H3 and it was entered before embarrassment and guilt for H4. Results indicated that anger was a significant predictor for behavioral intentions of use protection for oral sex for hypotheses three and four. Anger may not have emerged as a significant predictor for hypothesis two because, as previously mentioned, it was entered after guilt and embarrassment. Anger and embarrassment were highly correlated ($r = .66, p < .001$); the multicollinearity of these two variables may explain why anger did not emerge as a significant predictor for H2.

Determining the role of anger and its influence on behavioral intentions between *committed* and *non-committed* individuals is unclear for a couple reasons. First, the order of variable entry for *committed* and *non-committed* varied slightly. Relatedly, the results must be interpreted cautiously because of the high correlations between anger and embarrassment. However, it is clear that regardless of message frame or relationship type, anger can influence message processing. Anger was not intentionally aroused in this study and results indicate a negative relation between anger and behavioral intentions to use. Once again, it is critical for message designers to be cognizant of the emotions they are trying to elicit, as well as emotions that may be aroused as a result of the message. Both emotions, guilt and anger, can motivate individuals to take action; however, the particular *direction* outcome(s) taken as a result of either guilt or anger may be very different.

Message Framing and Embarrassment

Like guilt, embarrassment is also part of the family of self-conscious emotions. Feelings of embarrassment are generally elicited when one is made to feel self-conscious or exposed. Fear of rejection, feeling exposed or feeling as if a personal goal is obstructed in some way can arouse various emotions at once. If embarrassment is commonly mentioned as a reason for not using protection for vaginal intercourse (e.g., Galligan & Terry, 1993) it seems plausible that feelings of embarrassment might also occur within the context of protection for oral sex.

As previously mentioned, the order of entry of variables differed, based on certain audience characteristics and the particular message conditions. Embarrassment was a significant predictor of behavioral intentions for *committed* individuals who were exposed to a gain-framed guilt appeal message. However, embarrassment was negatively related to behavioral intentions; that is, the more embarrassed individuals were, the less likely they were to use protection for oral sex.

It is not surprising that embarrassment was negatively related to behavioral intentions to use protection for oral sex. Traditionally, the topic of oral sex has been taboo. Additionally, many individuals do not think of this nonintercourse act as “sex” and/or a risky sexual behavior. Given the complexities and nuances involved with vaginal-penile sex, it is not surprising that there are numerous challenges associated with navigating the sexual landscape of oral or anal sex behaviors. The initiation of and negotiation of the use of protection for oral sex may elicit a host of different emotions, embarrassment being one of them. Since anger and embarrassment were highly

correlated, it is difficult to determine the role and separate influences of each of these emotions.

Scholars have long noted the link between affect and persuasion (e.g., Jorgensen, 1998; Nabi, 1999). Some emotions are defined cognitively, others physiologically, and some are defined as a mixture of both (Metts & Bowers, 1994). The difficulty in defining emotions naturally complicates the construction and application of emotional appeals. Additionally, Jorgensen stated “the identification of emotional appeals is made more difficult by having to distinguish between emotional appeals and the emotional effects of persuasive appeals” (p. 405).

The multiple phases of this project illustrate the intricate and systematic steps necessary for message construction. The idea to use a hypothetical couple to capture the two components of a guilt appeal was based on formative research (i.e., the focus groups), in addition to research that suggests the use of personalized references increases perceptions of susceptibility, which in turn should increase motivation for action (Witte, 1993). Unfortunately there are no templates for message design that are effective across all contexts. The selection and inclusion of a guilt appeal will depend on the audience. Guilt is an emotion that emerges later developmentally; therefore, a message that contains a guilt appeal may be less effective for an audience of middle school children versus an audience of high school students. Also, given the ubiquitous nature of emotions and emotional appeals it is important to pilot and test measures before going into the field. Researchers may believe that have constructed an emotional appeal and intend to

arouse certain emotions, yet, the intended audience may receive the message very differently.

Relatedly, emotional appeals may elicit different emotions simultaneously. For example, research on fear appeals indicates that feelings other than fear may be aroused, which can inhibit message acceptance (e.g., Dillard, Plotnick, Godbold, Freimuth, & Edgar, 1996). Results from this project reveal that guilt, anger, and embarrassment all predicted behavioral intentions to use protection for oral sex. However, embarrassment and anger, respectively, were inversely related to the dependent variable. For example, increases in anger led to reduced intentions to use, whereas, increases in guilt led to greater intentions to use. Based on emotions literature, these findings are not surprising. Unintentionally induced anger has been negatively correlated with changes in attitudes (Nabi, 2002). In addition, results indicated that guilt and behavioral intentions were moderately correlated; therefore, these findings should be interpreted with caution. The challenge remains for message designers to determine how to construct emotional appeals, to elicit certain emotions but not others *and* to channel emotional responses in constructive ways.

Limitations

Although the results of this study are useful and interesting, there are several limitations that must be addressed. Finney and Iannotti (2002) noted the inherent difficulties of operationalizing theoretical terms into recommendations for health outcomes. As mentioned earlier, the literature on Prospect Theory provides contradictory findings. Some studies focused on levels of perceived risk to explain the relative

effectiveness of gain- versus loss-framed messages (e.g., Rothman & Salovey, 1997). Broemer (2002) found that gain-framed messages are more effective when levels of perceived risk are not salient. For example, in the case of safer oral sex messages, if individuals do not think they are at risk (i.e., low risk of contracting a STI through oral sex), then a gain-framed message should be more effective than a loss-framed message. However, perceptions of risk were not measured in this study. It is possible that young adults do not associate oral sex as a 'risky' behavior, and hence perceived risk would be low across all message conditions. Nonetheless, inclusion of such a measure could help elucidate this notion.

A second limitation is that there was no true control group. The experimental manipulation of the loss- versus gain-frame was successful; unfortunately, the same was not true for the gain and control conditions. Based on the pilot study, it was expected that the gain-framed and control message could be perceived different in terms of the components of a guilt appeal but this did not happen. Therefore, the gain-framed and control conditions were collapsed because they were not found to be perceived by the participants as significantly different from one another. Without a true control group it is difficult to know whether the effects were due to the integration of a guilt appeal with message framing *or* the message itself.

This study employed a posttest only design; as result, baseline data was not obtained from participants. More specifically, individuals' moods or emotional states before the message were not assessed. *Message-irrelevant* affect is independent of the message and can be beneficial to assessing the impact of affect on message processing

(Dillard & Wilson, 1993). In contrast, *message-induced affect* is affect that occurs in direct response to a stimulus (Dillard & Wilson, 1993) and with posttest design only it is unclear whether the emotional appeal (i.e., the guilt appeal) produced *message-induced affect* or was a result of *message-irrelevant affect*.

The intensity of mutual relational commitment was assessed; however, there was little variance in this measure, which could also be a limitation. Only individuals who responded that they were in “a committed, exclusive relationship” were asked to answer the intensity of mutual commitment scale, as an additional level of information regarding their perceptions of the relationship. However, there was little variance on this scale (i.e., most participants noted they were very committed to the relationship); therefore, it did not necessarily provide any additional information above and beyond the *relationship type* question. In the future, it may be helpful to have individuals in “committed, exclusive” and “committed, non-exclusive” relationships complete this measure to see if there are variations in perceptions based on exclusivity and how that influences perceptions of commitment among young adults.

A final limitation pertains to the small sample for the number of variables in the different regression models. Power statistics in this study were below the desirable range (.8); however, even with the limited statistical power, the results of this study should be considered of value for future research in this realm.

Future Research Directions

The inclusion of specific information and knowledge is one principle associated with effective health message design (Parrott et al., 2002). However, results from this

study reveal an inverse relation between actual knowledge and behavioral intentions to use, which is particularly troubling. Such a relationship between knowledge and attitude/behavior change leaves health educators and message designers in a quandary. The resulting challenge is to construct messages that contain the relevant information in ways that are meaningful and applicable to audience members' lives.

According to Prospect Theory, gain-framed messages highlight positive outcomes associated with behavior change, whereas, loss-framed messages emphasize negative consequences of not adopting the prescribed behavior. The results of this study suggest that we need to move away from the gain/loss dichotomy and concentrate on the processes associated with individuals' responses to messages. The use of a guilt appeal combined with either a gain- or loss-framed message can trigger different emotions, which in turn influences message acceptance. Previous research has highlighted the role of guilt on persuasion and how "guilt is readily interpreted as an effort to right a perceived wrong" (Dillard & Peck, 2001, p. 59). It would be interesting to examine the effectiveness of this type of negative appeal across different health behaviors and interpersonal contexts.

In this study participants were presented with a text message. However, with generations continually becoming more technologically savvy, message designers must also continually strive to develop strategies that match the needs and preferences of the audience. Additional research could use web-based messages. For example, participants go to a particular web-site and complete preliminary questions used to segment an audience, such as prior experience, frequency and use of protective measures. As a result,

messages could be tailored to specific subpopulations to increase effectiveness and message acceptance.

In addition, given the conceptual “fuzziness” associated with emotions (i.e., defined as cognitive, physiological, or both) it is advantageous to design studies that can measure affect via different methods. For example, development of techniques that allow researchers to obtain self-report, observational and physiological data will provide a more complete picture of our emotional landscapes. Results from this study show that some concepts such as guilt and behavioral intentions, or anger and embarrassment are highly correlated; questions remain as to why. We do not have a clear definitions or measures of emotions, which translates into disjointed research efforts and a reduction in progress toward understanding the intricate relations between affect, persuasion, and communication. Research that can advance conceptual as well as measurement concerns in the area of affect and persuasion are warranted.

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Appendix A

Focus Group Script & Questions

*As students enter the room – have them **Sign-In** [need their signatures for extra credit purposes] → folder marked “Sign-In Sheets” for each individual group, according to the date, time, type of group and moderator ☺*

Hello! My name is _____. I will serve as the group moderator and I would like to thank all of you for coming this afternoon (or evening)!

As mentioned, the purpose of this focus group is to explore young adults’ perceptions of relationships and personal codes of conduct regarding sexual behavior. Please keep in mind there are no “right” or “wrong” answers and anything said during this focus group discussion remains confidential – that is – we ask that you agree to **not** discuss or repeat what is said in this room to others.

Also, try not to think of this as a “research project” – we want and *need* your honest responses to questions. Some people may hesitate to talk about relationships and sex so candidly...or some people may use fairly explicit language – please talk about these topics the way you would with your friends...and remember to be respectful of others’ perspectives.

May want to reference the brochures at this point...Ex: On the table over there, we have different brochures that may be useful...feel free to help yourself to whatever at the end of the focus group.

Now, before we actually begin our discussion I’m going to distribute copies of the consent form. Each person will receive two copies – please read through the form and when you are finished sign and date one copy – the second copy is for you to hold onto for your own records. As noted in the consent forms, this focus group will be audiotaped, if you do not wish to be audiotaped, please note on the consent form and come see me.

*Distribute copies of the consent forms and wait until each group member returns their signed form – If anyone decides that s/he does not wish to be recorded, they will be dismissed from the group – and thank her/him for their willingness to participate – **BE SURE** to go over the consent forms*

- ***ALL participants MUST consent to being audiotaped before proceeding!***

Now, that I have everyone’s consent forms – I’m going to have you complete a brief questionnaire. Again, I’d like to welcome all of you and thank you for your time this afternoon (or evening). My job as the moderator is to simply help ‘move’ the conversation along and I will periodically toss out different questions for discussion.

Please feel free to jump in and offer your thoughts and perspectives. I ask that we do our best to take turns speaking – so we can all be sure to hear one another.

I will ask that everyone introduce themselves – by first names only!

Distribute Name Tags

Keep in mind that all personal identifiers will be removed when this focus group discussion is transcribed – each person will be assigned a code number.

To start with, we are going to go next door to view an ad and once we're done, we'll come back to this room. I'm assuming that everyone is okay and comfortable talking about relationships and sex. If *FOR SOME REASON* you feel incredibly anxious and do not wish to participate, as we move from this room to the next, please discretely excuse yourself.

*Take participants into 224 and log onto → <http://whitebedroom.com>...go to **The Spots**...you will see 2 columns, with 4 rows each...click on the Shirley Manson Ad [2nd column, 3rd box down – “what do you WORRY about when having sex? OR 2nd column, 4th box down – “What EXCUSE do you use?”]*

- *Please be sure to mention which ad you had them view – so we can have a record on tape! ☺*

*After viewing the ad...Note: **Let them know you will turn on the tape recorder at this point!***

TURN ON TAPE RECORDER!!! ☺

1. What do you think about this ad? [Specify Ad]

- **1a. How does this ad make you feel?**

- **1b. Did this ad change your mind about condoms?**

- **1c. Why...or why not? [try to get participants to elaborate on this]**

2. Do you think you would change your behavior, in terms of using condoms, after watching this ad?

- **2a. Why...or why not? [again, try to elicit more than Yes/No answers]**

For the rest of our time today, we'll focus on three general topics... first we'll cover personal codes, next we'll touch on personal patterns of behavior and then we'll talk about relationships.

To start with...

3. What are your thoughts on personal codes of conduct regarding sexual behavior?

Now, when I talk about "Personal codes of conduct," I really mean, your standard of behavior – that is, your own personal sense of morals or ethics with regard to your sexual behavior.

- **3a. For you, what is "OK," and what is "not OK" to do?**

- **3b. If you were to violate your own moral code or your own beliefs about sexual behavior, what should you do about it?**

- **3c. Do you think there are rules of conduct concerning sexual activity? ...what are they?**

- **3d. In terms of personal codes of conduct, do you think there are differences between women and men regarding *safer sex* behaviors?**

→ **If YES – what kind of differences do you mean?**

→ **If NO – why don't you think they're any different from each other?**

*May want to make some statement that... a **physically intimate relationship** with someone "runs the gamut from A to Z" → and if a participant(s) gives a vague response such as "we hooked up" – asked them to define, explain, elaborate on what that means exactly.*

4. So, if you are involved in a physically intimate relationship with someone, what type of behavior do you think is "okay" or acceptable?

- **4a. Versus what types of behaviors would be unacceptable?**

5. If you are involved in a physically intimate relationship with someone, what types of behaviors or conduct would make YOU feel guilty?

(If little response, move on, trying this...)

- **5a. Okay, let's think of it this way...and YOU can fill in the blank...
→ "If I were involved in an intimate relationship, I would feel guilty *IF*..."**

If still little response...probe...

- **5b. Would you feel guilty if you put your partner at risk for contracting a disease? [i.e., by not using protection]**

- **5c. Alright, how about....Have you ever felt or *DO* you feel guilty if you don't use protection?**

- **5d. Do you feel guilty if you don't use protection for vaginal sex?
...why? why not?**

- **5d. Do you feel guilty if you don't use protection for oral sex?
...why? why not?**

6. If involved in a committed relationship, what kinds of actions or behaviors would make students feel guilty?

7. Are there certain explicit and implicit rules in sexual relationships?

- **7a. What are they?**

- **7b. Do they vary depending on the level of commitment?**

- **7c. Do these explicit/implicit rules vary based on the type of relationship?
....How? [ask to elaborate here, if need be]**

Have students read ONE message at a time...example: let's read the "yellow" message first" – and then ask the questions...do the same for the "green" message.

- *Also. make sure that during the discussion YOU reference the message – so when*

transcribing the data, we'll know which one participants' are referring to ☺

- *If you are running short on time – have them read one message and then wrap-up.*

Given our discussion here this afternoon (or evening), I would like to now direct your attention toward two different messages. We will read and discuss them separately. Take a few minutes to read _____.

Repeat the following questions for each message!

8. How did the message make you feel?

9. What kind of emotions did you feel when reading this message?

- **9a. Did it make you happy, angry, sad, fearful, guilty, etc.?**

10. What are your impressions of this message?

More importantly...

11. How would you change this message?

- **11a. How would change this message to have a greater impact? (on young adults)?**

- **11b. Improve them?...wording? the focus of the content?**

Once again, I would like to thank you all for your participation this afternoon (evening).

- Is there anything that wasn't brought up that you think should have been? [or that we missed?]
- Does anyone have any comments or questions for me?

THANK YOU FOR YOUR TIME! ☺

Appendix B

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH

The Pennsylvania State University

Title of Project: Phase I – Focus Groups: A Test of the Message
Framing Guilt Appeals Model
Principal Investigator: Judith L. Weiner, Penn State Building,
University Park, PA 16802 (814) 865-0100 jlw350@psu.edu
Other Investigator(s): Roxanne L. Parrott, Penn State Building, University Park,
PA 16802 (814) 865-6255 rlp18@psu.edu

1. Purpose of the Study: The purpose of this research study is to explore how college students talk about relationships and personal codes of conduct regarding sexual behavior.
2. Procedures to be followed: You will be asked to participate in a focus group discussion and respond to two different messages regarding sexual health.
3. Discomforts and Risks: There are no risks in participating in this research beyond those experienced in everyday life. Some of the questions are personal and might cause discomfort.
4. Benefits:
 - a. You might learn more about yourself by participating in this study. In addition, you might have a better understanding of how important relationships are to you and realize that others have had similar experiences as you have.
 - b. This research might provide a better understanding of how relationships affect college students. This information could help plan, revise and advance educational programs regarding sexual health.
5. Duration: It will take approximately one hour to participate in to complete the focus group.
6. Statement of Confidentiality: Only the person in charge, and her/his assistants, will know your identity. If this research is published, no information that would identify you will be written. If participants speak about the contents of the focus groups outside of the group, it is expected that participants will not reveal to other people what individual participants said.
7. Right to Ask Questions: You can ask questions about the research. The person in charge will answer your questions. Contact Judith L. Weiner at 865-0100 with questions. If you have questions about your rights as a research participant, contact Penn State's Office for Research Protections at (814) 865-1775.

8. Compensation: Participants will receive extra credit points for their CAS 100A course (i.e., 8% on a 10% assignment). There is another option to participating to receive the extra credit. This option is to read a speech and write a 2-page written critique. You may select a speech from the following web site, as long as it is not one for which you have already written a critique: <http://www.americanrhetoric.com/newtop100speeches.htm>.
9. Voluntary Participation: You do not have to participate in this research. You can end your participation at any time by telling the person in charge. You do not have to answer any questions you do not want to answer.

I, _____ (please print name) agree to participate as a volunteer in this experiment as an authorized part of the education and research program of the Pennsylvania State University.

I understand the information given to me, and I have received answers to any questions I may have had about the research procedure. I understand and agree to the conditions of this study as described. To the best of my knowledge and belief, I have no physical or mental illness or difficulties that would increase the risk of me participating in this study.

I understand that I will receive extra credit for participating, and that I am entitled to no other compensation.

I understand that my participation in this research is voluntary, and that I may withdraw from this study at any time by notifying the person in charge.

I am 18 years of age or older.

I understand that my participation in this study will be audiotaped. All information will be kept confidential and no one will have access to the audiotapes except for the researchers. The data will be kept in a locked filing cabinet of the principal investigator's office for five years after results have been published.

_____ Yes, I consent to being audiotaped.

_____ No, I do not consent to being audiotaped.

I understand that I will receive a signed copy of this consent form.

Participant's Signature

Date

The informed consent procedure has been followed.

Investigator Signature

Date

Appendix C
Focus Group Questionnaire

Please answer the following questions:

Are you: FEMALE MALE

Would you describe yourself as: ASIAN LATINO/LATINA
BLACK WHITE Other: _____[please indicate]

What is your highest level/grade of education completed?

- a. College Freshman
- b. College Sophomore
- c. College Junior
- d. College Senior
- e. Other (_____)

You identify as: Heterosexual Bisexual Homosexual

Are you currently in...[please circle one]:

- a. a committed, exclusive relationship
- b. a committed, non-exclusive (i.e., you both can see other people) relationship
- c. casually dating, one person
- d. casually dating, multiple people

How many sexual partners have you had within the last 12 months? _____

How many sexual partners have you had within the last month (i.e., within the last 30 days?) _____

Have you had unprotected oral sex without a condom or a dental dam within the last six months?

_____ Yes _____ No

Have you had unprotected vaginal sex without a condom within the last six months?

_____ Yes _____ No

Appendix D

C-Y

Protect Yourself and Your Partner!

Have you ever had oral sex without a condom? You know what I mean, gone down on him or her with pretty much one thing in mind – pleasure!

You may be left with something besides the memorable physical experience. You may have shared more than physical intimacy. In fact, you may have started the biological chain leading to a sexually transmitted infection (STI). Sometimes “in the heat of the moment” you may not be thinking clearly and do not want to interrupt the excitement of being physically intimate. As a result, protection (e.g., condoms or dental dams) may not have been used and after the fact, you may wonder whether your health or the health of your partner has been compromised.

The fact is that sexually transmitted infections (STIs) are on the rise. The reality is roughly 2/3 of new STI cases occur in people ages 15-24.

Most people think “well s/he looks clean”...or “I don’t have any physical symptoms, so I must be okay” – the truth is, one of the reasons the rate of STI transmissions is so high is because many people *are* asymptomatic and do not have any physical symptoms. If you don’t think you have an STI, you may be less inclined to use protection.

How can I “have something” and not know it? Well, let’s consider stress for a moment. It’s a fact. College students are under a lot of stress. School, work, family, friends....It’s a lot to manage. Not surprisingly, your body reacts to the stress you put it under. Little signs like cold sores or fever blisters may appear – it’s your body’s way of letting you know “something is wrong.”

“But I don’t have any symptoms...I’m clean!” Are you? ”I’m not *that* kind of person – I’m not dirty!” STIs do not discriminate – ALL types of people are at risk for contracting STIs if you engage in unprotected behaviors.

Just like it may take awhile for visible signs and symptoms of stress to reveal themselves on your body, the same is true for STIs. The best way to protect yourself and your partner is to use protection for *all* types of sexual behavior.

There are a number of reasons why people do not use condoms (i.e., they are not romantic, they are embarrassing, a pain to use, etc.). The flip side is, there are just as many, if not more reasons *to use* condoms and engage in safer sex with your partner...you show respect, care and concern not only for yourself but also, for your partner! You can make safer sex fun and enjoyable with your partner and have the peace of mind that you are both doing what you can to protect yourselves and one another.

Appendix E

A-G *Know the Facts...Protect Yourself and Your Partner*

We are sexual beings from the moment we are born. Yet, there are many health risks associated with being sexually active. Lots of people think that reducing these risks means using condoms during vaginal intercourse, but unfortunately, unprotected oral sex is also *extremely risky!* Genital herpes, as well as HIV and gonorrhea can be passed from partner to partner during unprotected oral sex. Latex barriers such as dental dams and condoms should **always** be used during oral sex because you cannot tell whether someone has a sexually transmitted infection (STI) simply by “looking at” her/him. For example, genital herpes can go undetected, in part because it has a wide range of physical signs (Bechtel, 1993). And herpes simplex I – the “cold-sore” virus can *also* infect the genitals (American Social Health Association, 2001).

Recent estimates show that 65 million people in the United States are living with an incurable sexually transmitted infection (STI)¹. According to the American Social Health Association (2001), 2/3 of all new STIs occur in people 25 years of age or younger. In addition, 1 out of 4 people in the United States will contract a STI by the time they reach adulthood. The most common STI in the US is the Human PapillomaVirus (HPV). This is the virus that causes genital warts and more than 5 million people are infected with HPV each year. HPV has also been linked to cervical cancer in women.

The numbers are overwhelming and you may be left wondering, “how do I know if I’m at risk?” Your partner (or previous partner) may have “looked clean,” but unfortunately, many people may be infected without even knowing it. STIs can be asymptomatic (i.e., no physical “signs”/symptoms). In addition, some STIs can be transmitted simply through skin-to-skin contact, even *without any sexual penetration*. An example of such an STI is genital crabs (American Social Health Association, 2001).

Revealing you have an STI can be embarrassing causing some people to lie or deceive their sexual partners. This is another reason you may not know if your partner has been infected. So, regardless of your health status, you owe it to yourself *and* your partner to use protection to use protection during oral sex. You will feel bad if you infect someone with an STI, and you definitely do not want to contract one yourself. Using condoms (or dental dams) during oral sex decreases your risk of passing or contracting an STI.

By engaging in “safer sex” behaviors you’ll protect yourself and your partner’s sexual health. Remember there are many benefits to being a sexually responsible young adult. Proper precautions today can guarantee a healthy tomorrow. You stand to gain health benefits if you take preventive measures (e.g., regular and consistent use of condoms for oral sex).

Appendix F
Instrument Phase
Female – Oral Sex Message

C10

When Harry Met Sally, and Sally Got an STI, Couldn't Conceive Later, and Increased Her Risk for Cervical Cancer

Have you ever had oral sex without a condom? You know what I mean, gone down on him with pretty much one thing in mind – pleasure!

You may be left with something besides the pleasurable physical experience. You may have shared more than physical intimacy. In fact, you may have started the biological chain leading to a sexually transmitted infection (STI). Sometimes “in the heat of the moment,” you may not be thinking clearly and do not want to interrupt the excitement of being physically intimate. As a result, you may not have used protection (e.g., condoms or dental dams) and after the fact, you may find out that your health or the health of your partner has been compromised. Or, even worse, you and your partner may never know until one of you begins to have some more serious health problems, such as infertility or ED--erectile dysfunction, and your doctor says, "Well, a lot of times, these things relate to having had an STI. You probably had one and just never noticed..."

You care about your partner and would not think of hurting her/him deliberately. Unfortunately, engaging in unprotected sex is careless and destructive for you *and* your partner. If you could predict that two out of the three times that you have unprotected oral sex, you would cause your partner some harm and increase your own risk for disease, how would that make you feel? Doesn't sound like quite the same pleasurable experience you were thinking about? The fact is that sexually transmitted infections (STIs) are on the rise. The reality is that roughly 2/3 of new STI cases occur in people ages 15-24.

You feel confident that you won't harm your partner. O.K. Most people do think, “well s/he looks clean”...or “I don't have any physical symptoms, so I must be okay.” The truth is, one of the reasons the rate of STI transmissions is so high is because many people *are* asymptomatic and do not have any physical symptoms. Is it worth the risk? The use of protection can be fun and enjoyable for you and your partner – it can also increase intimacy and trust because you both have taken steps to protect one another.

Doesn't sound like much fun and you think your partner will object? Worried that s/he will think you think s/he has something or that you do? Again, just play the odds. Let's consider stress for a moment. It's a fact that college students are under a lot of stress. School, work, family, friends...It's a lot to manage. Not surprisingly, your body reacts to the stress you put it under. Little signs like cold sores or fever blisters may appear, but they may be almost invisible in the beginning. Do you want to risk it? ALL types of people are at risk for contracting STIs if you engage in unprotected behaviors.

Just like it may take awhile for visible signs and symptoms of stress to reveal themselves on your body, the same is true for STIs. The best way to protect yourself and your partner is to use protection for *all* types of sexual behavior. Sex is meant to be pleasurable and erotic *and* safe! Knowing that you are protecting yourself and your partner can make sex more enjoyable because you know you're safe.

Appendix G
Instrument Phase
Female – Vaginal Sex Message

C11

When Harry Met Sally, and Sally Got an STI, Couldn't Conceive Later, and Increased Her Risk for Cervical Cancer

Have you ever had vaginal sex without a condom? You know what I mean, “forgot” to use protection because you were focused on pleasure!

You may be left with something besides the pleasurable physical experience. You may have shared more than physical intimacy. In fact, you may have started the biological chain leading to a sexually transmitted infection (STI). Sometimes “in the heat of the moment,” you may not be thinking clearly and do not want to interrupt the excitement of being physically intimate. As a result, you may not have used protection (e.g., condoms) and after the fact, you may find out that your health or the health of your partner has been compromised. Or, even worse, you and your partner may never know until one of you begins to have some more serious health problems, such as infertility or ED--erectile dysfunction, and your doctor says, "Well, a lot of times, these things relate to having had an STI. You probably had one and just never noticed..."

You care about your partner and would not think of hurting her/him deliberately. Unfortunately, engaging in unprotected sex is careless and destructive for you *and* your partner. If you could predict that two out of the three times that you have unprotected vaginal sex, you would cause your partner some harm and increase your own risk for disease, how would that make you feel? Doesn't sound like quite the same pleasurable experience you were thinking about? The fact is that sexually transmitted infections (STIs) are on the rise. The reality is that roughly 2/3 of new STI cases occur in people ages 15-24.

You feel confident that you won't harm your partner. O.K. Most people do think, “well s/he looks clean”...or “I don't have any physical symptoms, so I must be okay.” The truth is, one of the reasons the rate of STI transmissions is so high is because many people *are* asymptomatic and do not have any physical symptoms. Is it worth the risk? The use of protection can be fun and enjoyable for you and your partner – it can also increase intimacy and trust because you both have taken steps to protect one another.

Doesn't sound like much fun and you think your partner will object? Worried that s/he will think you think s/he has something or that you do? Again, just play the odds. Let's consider stress for a moment. It's a fact that college students are under a lot of stress. School, work, family, friends...It's a lot to manage. Not surprisingly, your body reacts to the stress you put it under. Little signs like cold sores or fever blisters may appear, but they may be almost invisible in the beginning. Do you want to risk it? ALL types of people are at risk for contracting STIs if you engage in unprotected behaviors.

Just like it may take awhile for visible signs and symptoms of stress to reveal themselves on your body, the same is true for STIs. The best way to protect yourself and your partner is to use protection for *all* types of sexual behavior. Sex is meant to be pleasurable and erotic *and* safe! Knowing that you are protecting yourself and your partner can make sex more enjoyable because you know you're safe.

Appendix H
Instrument Phase
Male – Oral Sex Message

C00

When Harry Met Sally, and Harry Got an STI and Increased His Risk for Erectile Dysfunction

Have you ever had oral sex without a condom? You know what I mean, gone down on her with pretty much one thing in mind – pleasure!

You may be left with something besides the pleasurable physical experience. You may have shared more than physical intimacy. In fact, you may have started the biological chain leading to a sexually transmitted infection (STI). Sometimes “in the heat of the moment,” you may not be thinking clearly and do not want to interrupt the excitement of being physically intimate. As a result, you may not have used protection (e.g., condoms or dental dams) and after the fact, you may find out that your health or the health of your partner has been compromised. Or, even worse, you and your partner may never know until one of you begins to have some more serious health problems, such as infertility or ED--erectile dysfunction, and your doctor says, "Well, a lot of times, these things relate to having had an STI. You probably had one and just never noticed..."

You care about your partner and would not think of hurting her/him deliberately. Unfortunately, engaging in unprotected sex is careless and destructive for you *and* your partner. If you could predict that two out of the three times that you have unprotected oral sex, you would cause your partner some harm and increase your own risk for disease, how would that make you feel? Doesn't sound like quite the same pleasurable experience you were thinking about? The fact is that sexually transmitted infections (STIs) are on the rise. The reality is that roughly 2/3 of new STI cases occur in people ages 15-24.

You feel confident that you won't harm your partner. O.K. Most people do think, “well s/he looks clean”...or “I don't have any physical symptoms, so I must be okay.” The truth is, one of the reasons the rate of STI transmissions is so high is because many people *are* asymptomatic and do not have any physical symptoms. Is it worth the risk? The use of protection can be fun and enjoyable for you and your partner – it can also increase intimacy and trust because you both have taken steps to protect one another.

Doesn't sound like much fun and you think your partner will object? Worried that s/he will think you think s/he has something or that you do? Again, just play the odds. Let's consider stress for a moment. It's a fact that college students are under a lot of stress. School, work, family, friends...It's a lot to manage. Not surprisingly, your body reacts to the stress you put it under. Little signs like cold sores or fever blisters may appear, but they may be almost invisible in the beginning. Do you want to risk it? ALL types of people are at risk for contracting STIs if you engage in unprotected behaviors.

Just like it may take awhile for visible signs and symptoms of stress to reveal themselves on your body, the same is true for STIs. The best way to protect yourself and your partner is to use protection for *all* types of sexual behavior. Sex is meant to be pleasurable and erotic *and* safe! Knowing that you are protecting yourself and your partner can make sex more enjoyable because you know you're safe.

Appendix I
Instrument Phase
Male – Oral Sex Message

C01

When Harry Met Sally, and Harry Got an STI and Increased His Risk for Erectile Dysfunction

Have you ever had vaginal sex without a condom? You know what I mean, “forgot” to use protection because you were focused on pleasure!

You may be left with something besides the pleasurable physical experience. You may have shared more than physical intimacy. In fact, you may have started the biological chain leading to a sexually transmitted infection (STI). Sometimes “in the heat of the moment,” you may not be thinking clearly and do not want to interrupt the excitement of being physically intimate. As a result, you may not have used protection (e.g., condoms) and after the fact, you may find out that your health or the health of your partner has been compromised. Or, even worse, you and your partner may never know until one of you begins to have some more serious health problems, such as infertility or ED--erectile dysfunction, and your doctor says, "Well, a lot of times, these things relate to having had an STI. You probably had one and just never noticed..."

You care about your partner and would not think of hurting her/him deliberately. Unfortunately, engaging in unprotected sex is careless and destructive for you *and* your partner. If you could predict that two out of the three times that you have unprotected vaginal sex, you would cause your partner some harm and increase your own risk for disease, how would that make you feel? Doesn't sound like quite the same pleasurable experience you were thinking about? The fact is that sexually transmitted infections (STIs) are on the rise. The reality is that roughly 2/3 of new STI cases occur in people ages 15-24.

You feel confident that you won't harm your partner. O.K. Most people do think, “well s/he looks clean”...or “I don't have any physical symptoms, so I must be okay.” The truth is, one of the reasons the rate of STI transmissions is so high is because many people *are* asymptomatic and do not have any physical symptoms. Is it worth the risk? The use of protection can be fun and enjoyable for you and your partner – it can also increase intimacy and trust because you both have taken steps to protect one another.

Doesn't sound like much fun and you think your partner will object? Worried that s/he will think you think s/he has something or that you do? Again, just play the odds. Let's consider stress for a moment. It's a fact that college students are under a lot of stress. School, work, family, friends...It's a lot to manage. Not surprisingly, your body reacts to the stress you put it under. Little signs like cold sores or fever blisters may appear, but they may be almost invisible in the beginning. Do you want to risk it? ALL types of people are at risk for contracting STIs if you engage in unprotected behaviors.

Just like it may take awhile for visible signs and symptoms of stress to reveal themselves on your body, the same is true for STIs. The best way to protect yourself and your partner is to use protection for *all* types of sexual behavior. Sex is meant to be pleasurable and erotic *and* safe! Knowing that you are protecting yourself and your partner can make sex more enjoyable because you know you're safe.

Appendix J
[Female, Gain, Give, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ...YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *he* developed genital herpes. But *how* they discovered Jordan contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed having oral sex. They didn't realize that when Sarah had a cold sore on her mouth she could transfer herpes to Jordan. He did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Jordan started to feel ill. He had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over his genitals.

This "news" surprised them both, considering they were in an exclusive relationship and Sarah did not have any symptoms (i.e., signs) of herpes on her genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). The use of latex condoms or dental dams¹ during oral sex has the **benefit** of protecting your health and your partner's health, too.

Sarah was upset because she had always taken steps to protect her health and then this happened. I guess you could say she is feeling guilty because she feels like she should have known better. And she feels responsible for *giving* Jordan an STI – 'I should have known better than to *perform unprotected oral sex* on my partner.'

So, the **advantages of practicing "safer" oral sex** include: (1) you gain peace of mind knowing you protected your health and your partner's health, too; (2) you gain confidence by practicing a behavior and increasing control over your health; and (3) you can keep yourself free of disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By engaging in "safer sex" behaviors you'll protect yourself and your partner's sexual health. There are many **benefits to being a sexually responsible** young adult. Remember that **you stand to gain health benefits** if you take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

¹A dental dam refers to a thin latex square that is placed over the female's genitals for use during oral sex (i.e., cunnilingus).

For additional information about STIs and sexual health, in general contact: The AIDS Project, 315 South Allen Street, Suite #116, State College, PA 16801

American Social Health Association (2001). STD Statistics. [Online]. Available: <http://www.ashastd.org/stdfaqs/statistics.html>.

<http://www.cdc.gov/std/Herpes/STDFact-Herpes.htm>

Appendix K
Female, Gain, Receive, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ... YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *she* developed genital herpes. But *how* they discovered Sarah contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed oral sex. They didn't realize that when Jordan had a cold sore on his mouth he could transfer herpes to Sarah. She did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Sarah started to feel ill. She had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over her genitals.

This “news” surprised them both, considering they were in an exclusive relationship and Jordan did not have any symptoms (i.e., signs) of herpes on his genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). The use of latex condoms or dental dams¹ during oral sex has the **benefit** of protecting your health and your partner's health, too.

Sarah was upset because she had always taken steps to protect her health and then this happened. I guess you could say she is feeling guilty because she feels like she should have known better. And she feels responsible for *catching* an STI – ‘I should have known better than to *receive unprotected* oral sex from my partner.’

So, the **advantages of practicing “safer” oral sex** include: (1) you gain peace of mind knowing you protected your health and your partner's health, too; (2) you gain confidence by practicing a behavior and increasing control over your health; and (3) you can keep yourself free of disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By engaging in “safer sex” behaviors you'll protect yourself and your partner's sexual health. There are many **benefits to being a sexually responsible** young adult. Remember that **you stand to gain health benefits** if you take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

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Appendix L
[Female, Loss, Give, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ...YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *he* developed genital herpes. But *how* they discovered Jordan contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed having oral sex. They didn't realize that when Sarah had a cold sore on her mouth she could transfer herpes to Jordan. He did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Jordan started to feel ill. He had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over his genitals.

This “news” surprised them both, considering they were in an exclusive relationship and Sarah did not have any symptoms (i.e., signs) of herpes on her genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). Not using latex condoms or dental dams¹ during oral sex can **cost** you your health and your partner's health, too.

Sarah was upset because she had always taken steps to protect her health and then this happened. I guess you could say she is feeling guilty because she feels like she should have known better. And she feels responsible for *giving* Jordan an STI – ‘I should have known better than to *perform unprotected* oral sex on my partner.’

So, the **disadvantages of not practicing “safer” oral sex** include: (1) you lose peace of mind knowing your put your health at risk and your partner's health, too; (2) you lose confidence by avoiding a behavior and decreasing control over your health; and (3) you risk getting a disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By *not* engaging in “safer sex” behaviors you will fail to protect yourself and your partner's sexual health. There are many **costs to being a sexually irresponsible** young adult. Remember that **you stand to lose health benefits** if you do not take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

¹A dental dam refers to a thin latex square that is placed over the female's genitals for use during oral sex (i.e., cunnilingus).

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Appendix M
 [Female, Loss, Receive, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ... YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *she* developed genital herpes. But *how* they discovered Sarah contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed oral sex. They didn't realize that when Jordan had a cold sore on his mouth he could transfer herpes to Sarah. She did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Sarah started to feel ill. She had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over her genitals.

This “news” surprised them both, considering they were in an exclusive relationship and Jordan did not have any symptoms (i.e., signs) of herpes on his genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). Not using latex condoms or dental dams¹ during oral sex can **cost** you your health and your partner's health, too.

Sarah was upset because she had always taken steps to protect her health and then this happened. I guess you could say she is feeling guilty because she feels like she should have known better. And she feels responsible for *catching* an STI – ‘I should have known better than to *receive unprotected* oral sex from my partner.’

So, the **disadvantages of not practicing “safer” oral sex** include: (1) you lose peace of mind knowing your put your health at risk and your partner's health, too; (2) you lose confidence by avoiding a behavior and decreasing control over your health; and (3) you risk getting a disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By *not* engaging in “safer sex” behaviors you will fail to protect yourself and your partner's sexual health. There are many **costs to being a sexually irresponsible** young adult. Remember that **you stand to lose health benefits** if you do not take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

¹A dental dam refers to a thin latex square that is placed over the female's genitals for use during oral sex (i.e., cunnilingus).

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Appendix N
[Male, Gain, Give, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ...YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *she* developed genital herpes. But *how* they discovered Sarah contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed having oral sex. They didn't realize that when Jordan had a cold sore on his mouth he could transfer herpes to Sarah. She did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Sarah started to feel ill. She had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over her genitals.

This “news” surprised them both, considering they were in an exclusive relationship and Jordan did not have any symptoms (i.e., signs) of herpes on his genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). The use of latex condoms or dental dams¹ during oral sex has the **benefit** of protecting your health and your partner's health, too.

Jordan was upset because he had always taken steps to protect his health and then this happened. I guess you could say he is feeling guilty because he feels like he should have known better. And he feels responsible for *giving* Sarah an STI – ‘I should have known better than to *perform unprotected* oral sex on my partner.’

So, the **advantages of practicing “safer” oral sex** include: (1) you gain peace of mind knowing you protected your health and your partner's health, too; (2) you gain confidence by practicing a behavior and increasing control over your health; and (3) you can keep yourself free of disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By engaging in “safer sex” behaviors you'll protect yourself and your partner's sexual health. There are many **benefits to being a sexually responsible** young adult. Remember that **you stand to gain health benefits** if you take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

¹A dental dam refers to a thin latex square that is placed over the female's genitals for use during oral sex (i.e., cunnilingus).

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Appendix O
 [Male, Gain, Receive, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ...YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *he* developed genital herpes. But *how* they discovered Jordan contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed having oral sex. They didn't realize that when Sarah had a cold sore on her mouth she could transfer herpes to Jordan. He did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Jordan started to feel ill. He had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over his genitals.

This "news" surprised them both, considering they were in an exclusive relationship and Sarah did not have any symptoms (i.e., signs) of herpes on her genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). The use of latex condoms or dental dams¹ during oral sex has the **benefit** of protecting your health and your partner's health, too.

Jordan was upset because he had always taken steps to protect his health and then this happened. I guess you could say he is feeling guilty because he feels like he should have known better. And he feels responsible for *catching* an STI – 'I should have known better than to *receive unprotected* oral sex from my partner.'

So, the **advantages of practicing "safer" oral sex** include: (1) you gain peace of mind knowing you protected your health and your partner's health, too; (2) you gain confidence by practicing a behavior and increasing control over your health; and (3) you can keep yourself free of disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By engaging in "safer sex" behaviors you'll protect yourself and your partner's sexual health. There are many **benefits to being a sexually responsible** young adult. Remember that **you stand to gain health benefits** if you take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

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Appendix P
 [Male, Loss, Give, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ...YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *she* developed genital herpes. But *how* they discovered Sarah contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed having oral sex. They didn't realize that when Jordan had a cold sore on his mouth he could transfer herpes to Sarah. She did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Sarah started to feel ill. She had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over her genitals.

This “news” surprised them both, considering they were in an exclusive relationship and Jordan did not have any symptoms (i.e., signs) of herpes on his genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). Not using latex condoms or dental dams¹ during oral sex can **cost** you your health and your partner's health, too.

Jordan was upset because he had always taken steps to protect his health and then this happened. I guess you could say he is feeling guilty because he feels like he should have known better. And he feels responsible for *giving* Sarah an STI – ‘I should have known better than to *perform unprotected* oral sex on my partner.’

So, the **disadvantages of not practicing “safer” oral sex** include: (1) you lose peace of mind knowing your put your health at risk and your partner's health, too; (2) you lose confidence by avoiding a behavior and decreasing control over your health; and (3) you risk getting a disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By *not* engaging in “safer sex” behaviors you will fail to protect yourself and your partner's sexual health. There are many **costs to being a sexually irresponsible** young adult. Remember that **you stand to lose health benefits** if you do not take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

¹A dental dam refers to a thin latex square that is placed over the female's genitals for use during oral sex (i.e., cunnilingus).

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Appendix Q
[Male, Loss, Receive, Guilt Appeal]
Use of Protection for Oral Sex

Have you ever considered using protection for oral sex? ...YOU may think twice about engaging in unprotected oral sex after reading the following:

Last year, when my friend, Sarah, was dating this guy, Jordan, they found out that *he* developed genital herpes. But *how* they discovered Jordan contracted genital herpes came as a surprise to them both! Just like other couples, Sarah and Jordan enjoyed having oral sex. They didn't realize that when Sarah had a cold sore on her mouth she could transfer herpes to Jordan. He did not have any symptoms for awhile, in part because the virus can lay dormant (i.e., hidden or inactive) for some time. But then Jordan started to feel ill. He had flu-like symptoms (headache, fever, swollen glands in lymph nodes near groin) and a severe breakout, with sores (blisters that almost looked like pimples) all over his genitals.

This "news" surprised them both, considering they were in an exclusive relationship and Sarah did not have any symptoms (i.e., signs) of herpes on her genitals. They did not realize that sexually transmitted infections (STIs) could be transmitted through oral sex. For example, genital herpes, genital chlamydia, as well as HIV, and gonorrhea can be passed from partner to partner during unprotected oral sex (American Social Health Association, 2001). Not using latex condoms or dental dams¹ during oral sex can **cost** you your health and your partner's health, too.

Jordan was so upset because he had always taken steps to protect his health and then this happened. I guess you could say he is feeling guilty because he feels like he should have known better. And he feels responsible for *catching* an STI – 'I should have known better than to *receive unprotected* oral sex from my partner.'

So, the **disadvantages of not practicing "safer" oral sex** include: (1) you lose peace of mind knowing your put your health at risk and your partner's health, too; (2) you lose confidence by avoiding a behavior and decreasing control over your health; and (3) you risk getting a disease.

Using some form of protection during oral sex may not be appealing. However, the possibility of getting an STI is something *most* people would like to avoid. By *not* engaging in "safer sex" behaviors you will fail to protect yourself and your partner's sexual health. There are many **costs to being a sexually irresponsible** young adult. Remember that **you stand to lose health benefits** if you do not take preventive measures (e.g., regular and consistent use of condoms or dental dams for oral sex).

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Appendix R [Control Message]

Use of Protection for *All* Sexual Behaviors

How do you know if you are sick? That is an important question to consider. The answer is, you usually don't. Some illnesses simply do not make themselves known until they've been damaging your body for some time. That is often the case with sexually transmitted infections (STIs)¹.

This fact has led to what some health experts are calling an epidemic. For example, recent estimates show that 65 million people in the United States are living with an incurable sexually transmitted infection (STI)². Another 15 million people become infected each year. STIs affect people of *all* ages, races, ethnicities, and economic groups.

According to the American Social Health Association (2001) 2/3 of all new STIs¹ occur in people 25 years of age or younger. In addition, 1 out of 4 people in the United States will contract a STI by the time they reach adulthood. The most common STI is chlamydia – 4 million new cases are recorded every year. In most cases, the person will not know they are infected. And when people are unaware that they have an infection, they can pass the infection on to their sexual partners.

Another very common STI in the US is the Human PapillomaVirus (HPV), the virus that causes genital warts, and more than 5 million people are infected with HPV each year. All this information can be overwhelming and the statistics vary depending on different age groups in the population, however, one thing remains constant – individuals need to protect themselves.

The surest way to avoid transmission of sexually transmitted diseases is to abstain from *any* sexual contact/ behavior, or to be in a long-term mutually monogamous relationship with a partner who has been tested and you know is uninfected.

Revealing you have an STI can be extremely embarrassing and as a result, many people choose to lie/deceive their sexual partners. There are often negative consequences associated with deceiving one's partner.

There are a number of reasons why people do not use protection (i.e., latex condoms or dental dams³). For example, using some form of protection may not be seen as romantic; some individuals may be embarrassed or feel awkward using a latex condom or a dental dam; and another common reason for not using protection is – it's inconvenient.

The flip side is, there are just as many, if not more reasons *to use* protection and engage in “safer sex” with your partner...you show respect, care and concern not only for yourself but also, for your partner! You can make safer sex fun and enjoyable with your partner and have the peace of mind that you are both doing what you can to protect yourselves and one another.

¹(2003, Summer). A silent epidemic: Chlamydia, the most common sexually transmitted infection, usually has no symptoms. *Living Well*, 15

²American Social Health Association (2001). STD Statistics. [Online]. Available: <http://www.ashastd.org/stdfaqs/statistics.html>.

³A dental dam refers to a thin latex square that is placed over the female's genitals for use during oral sex (i.e., cunnilingus).

For additional information about STIs and sexual health, in general contact: The AIDS Project, 315 South Allen Street, Suite #116, State College, PA 16801

<http://www.cdc.gov/std/Herpes/STDFact-Herpes.htm>

Appendix S

Message clarity.

Directions: Rate the message you read by placing a check mark on the line that best reflects your opinion.

For example, imagine you were asked to rate the statement: “Children should eat ice cream everyday for lunch.” As in the example below **, you would put an “X” in the far left position on the scale if you think that this is a very bad idea. If you think this is a very good idea, you would put an “X” in the far right position on the scale. If you held a neutral position, you would mark the middle position on the scale, and so on. **Please be sure to put an “X” on each of the lines for each scale.**

****Example:** BAD X 1 _____ 2 _____ 3 _____ 4 _____ 5 GOOD

I think the overall information in the message is:

(Please be sure to put an “X” on **each of the lines** for each scale.)

Well-explained _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Unclear

Supported _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Unsupported

Technical _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Straightforward

Understandable _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Confusing

Helpful _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Not-helpful

Appendix T

Message framing.

I think the information in the message focused on: (Please check **one**.)

Disadvantages of *unprotected* oral sex

Advantages of *protected* oral sex

Does not apply

Overall, I think the information in the message suggests that the behavior has/ is/ can _____.
(Please be sure to put an "X" on **each of the lines** for each scale.)

Very Negative _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Not very Negative

Cost your health _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Benefit your health

Overall, I think the information in the message talks about _____.

The **benefits** _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 The **costs**
of **protected** oral sex of **unprotected** oral sex

Overall, I think the information in the message talks about _____.
(Please be sure to put an "X" on **each of the lines** for each scale.)

Potential **Gains** from _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 Potential **Losses**
from protected oral sex unprotected oral
sex

The **costs** of being _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 The **benefits** of sexually
irresponsible being sexually
responsible

The message contained the following statement: (Please check **one**.)

Remember **you stand to lose health benefits** if you do not take preventive measures.

You can make safer sex fun and enjoyable with your partner and have the peace of mind that you are both doing what you can to protect yourselves and one another.

Remember **you stand to gain health benefits** if you do take preventive measures.

Appendix T (Cont.)

1. The message stressed the positive results of following the behavior. (SD to SA)
2. The message focused on the costs of not following the recommended behavior. (SD to SA)

I think the information in the message focused on: (Please check one.)

- Gaining health benefits by using protection
 Losing health benefits by *not* using protection
 Does not apply

Appendix U

Message induced affect.

Directions: Rate the message you read by placing a check mark on the line that best reflects your opinion.

For example, imagine you were asked to rate the statement: “Children should eat ice cream everyday for lunch.” As in the example below **, you would put an “X” in the far left position on the scale if you think that this is a very bad idea. If you think this is a very good idea, you would put an “X” in the far right position on the scale. If you held a neutral position, you would mark the middle position on the scale, and so on. **Please be sure to put an “X” on each of the lines for each scale.**

****Example:** BAD X 1 2 3 4 5 GOOD

When I read this message, it makes me feel:

(Please be sure to put an “X” on **each of the lines** for each scale.)

Calm	_____	1	_____	2	_____	3	_____	4	_____	5	Anxious
Regretful	_____	1	_____	2	_____	3	_____	4	_____	5	Not Regretful
Afraid	_____	1	_____	2	_____	3	_____	4	_____	5	Unafraid
Angry	_____	1	_____	2	_____	3	_____	4	_____	5	Content
Guilty	_____	1	_____	2	_____	3	_____	4	_____	5	Not Guilty
Embarrassed	_____	1	_____	2	_____	3	_____	4	_____	5	Comfortable
Ashamed	_____	1	_____	2	_____	3	_____	4	_____	5	Unashamed
Fearful	_____	1	_____	2	_____	3	_____	4	_____	5	Not Fearful
Not Concerned	_____	1	_____	2	_____	3	_____	4	_____	5	Concerned
Responsible	_____	1	_____	2	_____	3	_____	4	_____	5	Irresponsible

Appendix V*Message content.***I think the information in the message focused on:** (Please check **one**.)

- Oral sex (i.e., mouth-to-genital contact)
- Vaginal intercourse (i.e., vaginal-penile penetration)
- All sexual behaviors

I think the information in the message focused on: (Please check **one**.)

- Giving (performing) unprotected oral sex
- Receiving unprotected oral sex
- Does not apply

I think the information in the message focused on: (Please check **one**.)

- Catching an STI (i.e., unprotected oral sex)
- Passing an STI (i.e., unprotected oral sex)
- Does not apply

Appendix W*Guilt Appeal items.*

1. The characters in this story (i.e., Sarah & Jordan) may feel bad because they put themselves at risk for an STI.
2. The information in this message provides a clear method to protect oneself during oral sex.
3. The characters in the story (i.e., Sarah & Jordan) feel guilty because they neglected to protect themselves during oral sex.
4. The information in the message talks about a way to avoid what happened to Sarah and Jordan.
5. The characters in this story (i.e., Sarah & Jordan) feel guilty since they did not protect themselves – that is, they risked their health by not using protection during oral sex.
6. The information in this message provides a way to protect oneself during oral sex.
7. The characters in this story (i.e., Sarah & Jordan) may feel bad because they “broke an unwritten rule” (i.e., do no harm).
8. The information in this message suggests a strategy to reduce the risk of disease that may be spread during oral sex.
9. The characters in this story (i.e., Sarah & Jordan) may feel guilty because they unintentionally compromised their health by not using protection during oral sex.

Appendix X

Health orientation.

Value own health

1. I work very hard to take care of my health.
2. Protecting my health is one of my most important goals.
3. I really don't worry much about my health. **R**

Motivation to avoid unhealthiness

4. I do things that keep me from becoming physically unhealthy.
5. I am motivated to keep myself from becoming physically unhealthy.
6. I try to avoid engaging in behaviors that undermine my physical health.
7. I really want to prevent myself from getting out of shape.
8. I am really motivated to avoid being in terrible physical shape.

Motivation for healthiness

9. I'm very motivated to be physically healthy.
10. I'm strongly motivated to devote time and effort to my physical health.
11. I have a strong desire to keep myself physically healthy.
12. It's really important to me that I keep myself in proper physical health.
13. I strive to keep myself in tip-top physical shape.

Value other's health

14. I care about the health of the person I am physically intimate with.
15. Protecting the health of the people I care about is an important goal.
16. I really don't worry much about the health of the people I have sex with. **R**
17. I try to protect the health of the person I have sex with.

Note: **R** = reverse-coded item.

Appendix Y

Anger regarding use of protection.

1. I would feel angry if a sexual partner insisted we use a condom for oral sex.
2. The thought of using condoms for oral sex makes me angry.
3. I would feel angry if a sexual partner insisted we use protection (i.e., condom, dental dam, saran wrap) for oral sex.
4. The thought of using protection (i.e., condom, dental dam, saran wrap) for oral sex makes me angry.
5. It makes me mad to have to use condoms for protection when having oral sex.
6. I am glad to use latex condoms (or dental dams) for protection when having oral sex. **R**

Note: **R** = reverse-coded item.

Appendix Z*Embarrassment regarding use of protection.*

1. I would be embarrassed if a new partner insisted that we use a latex condom for oral sex.
2. I would be embarrassed to tell my partner during foreplay that I am not willing to have sexual intercourse unless we use a condom.
3. I would be embarrassed to provide a condom during lovemaking.
4. I would be embarrassed to talk to my partner about condom use.
5. I would be embarrassed if a new partner insisted that we use protection (i.e., condom, dental dam, saran wrap) for oral sex.
6. I would be embarrassed to tell my partner that I am not willing to have oral sex unless we use protection.
7. I would be embarrassed to provide protection (i.e., condom, dental dam, saran wrap) during oral.
8. I would be embarrassed about talking to my partner about the use of protection (i.e., condom, dental dam, saran wrap) for oral sex.

Appendix AA*Guilt regarding use of protection.*

1. I would feel guilty if I did not use protection for oral sex.
2. I would feel irresponsible if I did not use a condom for oral (sex).
3. I see no reason to feel guilty for not using condoms. **R**
4. Engaging in unprotected oral sex would not make me feel guilty. **R**
5. I do not feel guilty for not using condoms. **R**
6. I see no reason to feel guilty for not using protection for oral sex. **R**
7. If I were to engage in unprotected oral sex, I would not feel guilty.
8. I feel guilty for not using condoms.
9. I would feel bad if I didn't use protection during oral sex.
10. You will feel bad if you don't use protection for oral sex.
11. You owe it to yourself to use protection when having oral sex.

Note: **R** = reverse-coded item.

Appendix BB*Perceived behavioral control.*

1. I have control over whether I use condoms during oral sex.
2. My partner has control over whether we use condoms during oral sex. **R**
3. I am free to decide whether I want to use protection (i.e., condom, dental dam, saran wrap) during oral sex.
4. No one but me controls what I do when it comes to using protection (i.e., condom, dental dam, saran wrap) for oral sex.

Note: **R** = reverse-coded item.

Appendix CC

Reinforcement

1. The message persuaded me that protecting myself during oral sex is the right thing to do.
2. The message reinforced the idea that it is “smart” to use protection during oral sex
3. The message reinforced the idea that the use of protection (i.e., condom, dental dam, saran wrap) during oral sex is the right thing to do.
4. The message persuaded me to use protection during oral sex.

Appendix DD

Self-efficacy.

Partner's Disapproval

1. If I were to suggest using protection (i.e., condom, dental dam, saran wrap) to a partner, I would be afraid that s/he would reject me. **R**
2. If I were unsure of my partner's feeling about using condoms, I would not suggest using one. **R**
3. I would not feel confident suggesting using condoms with a new partner because I would be afraid that s/he would think I have a STI. **R**
4. I would not feel confident suggesting using protection (i.e., condom, dental dam, saran wrap) with a new partner because I would be afraid that s/he would think I have a STI. **R**
5. I would not feel confident suggesting using protection (i.e., condom, dental dam, saran wrap) with a new partner because I would be afraid that s/he would think I thought s/he had a STI. **R**
6. If I were unsure of my partner's feeling about using protection (i.e., condoms, dental dams, saran wrap) I would not suggest using it. **R**
7. If I were to suggest using a condom to a partner, I would be afraid that s/he would reject me. **R**
8. I would not feel confident suggesting using protection (i.e., condoms, dental dam, saran wrap) with a new partner because I would be afraid that s/he would think I have had a past homosexual experience. **R**

Mechanics

9. I feel confident in my ability to put a condom on myself or my partner quickly.
10. I feel confident in my ability to put a condom on myself or my partner.
11. I feel confident in my ability to use protection (i.e., condom, dental dam, saran wrap) with my partner.

Note: **R** = reverse-coded item.

Appendix EE*Response efficacy.*

1. I think consistent use of protection during sexual activity is an excellent way to prevent the spread of STIs.
2. I believe that regular use of protection during oral sex can decrease the spread of STIs.
3. I think consistent use of protection during sexual activity is an excellent means of contraception.
4. I believe that regular use of protection during oral sex can prevent the spread of STIs.
5. I think consistent use of protection during sexual activity is an excellent way to prevent the spread of STIs.

Appendix FF*Behavioral Intentions.*

1. I will use protection (i.e., condom, dental dam, saran wrap) next time I have oral sex.
2. I will use a condom next time I have oral sex.
3. I will tell my partner to use protection (i.e., condom, dental dam, saran wrap) for oral sex.

Appendix GG

Actual knowledge.

1. Not having sex is the only *sure* way to avoid getting a sexually transmitted infection.
2. Birth control pills do *not* protect a woman against sexually transmitted infections.
3. You can only get an STI through sexual penetration (i.e., vaginal-penile insertion).
4. Latex condoms offer effective protection against sexually transmitted infections, if used properly.
5. You can get an STI through unprotected oral (i.e., mouth-to-genital contact) sex.
6. Use of a latex condom during *oral* sexual contact can decrease chances of getting an STI.
7. Oral sex is considered to be less dangerous a practice than intercourse.
8. Use of protection (i.e., latex condom, dental dam, saran wrap) during *oral* sexual contact can decrease chances of getting an STI.
9. Genital herpes has physical symptoms that are not visible.
10. Oral-to-genital contact (i.e., oral sex) can spread STIs (such as genital herpes, gonorrhea, and syphilis).
11. Proper use of barrier methods can reduce the risk of transmission of STIs associated with sexual activities.

Appendix HH

Procedural knowledge.

1. Latex condoms can be reused to have sex.
2. Washing the genital area with soap after having sex protects against STIs.
3. Oil-based lubricants (e.g., Vaseline) can harm the effectiveness of latex condoms.
4. To prevent against the spread of STIs, a latex condom should be placed on an erect (i.e., hard) penis before there is any contact with the vagina.
5. To apply a condom, you should roll the condom rim all the way to the base of the penis.
6. You should pinch the end of the condom if there is no reservoir tip to leave room for the sperm to collect.
7. To prevent against the spread of STIs, a latex condom should be placed on an erect (i.e., hard) penis before there is any contact with the mouth.

Appendix II*Mutual commitment.*

1. My partner and I are both committed to not dating other people.
2. My partner and I are dating each other exclusively.
3. My partner and I are mutually committed to each other.
4. My partner and I have made an explicit commitment to each other.

Appendix JJ

Demographics.

Are you: FEMALE MALE How old are you?
 _____ years

Would you describe yourself as: ASIAN LATINO/LATINA BLACK
 WHITE Other: _____

[please indicate]

What is your highest level/grade of education completed?

- a. College Freshman
- b. College Sophomore
- c. College Junior
- d. College Senior
- e. Other (_____)

You identify as: Heterosexual Bisexual Homosexual

Are you currently in...[please circle one]:

- a. a committed, exclusive relationship
- b. a committed, non-exclusive (i.e., you both can see other people) relationship
- c. casually dating, one person
- d. casually dating, multiple people
- e. none (i.e., not currently dating)

If you answered a – please answer the following four questions. SD=strongly disagree; D=disagree; N=neither agree nor disagree; A=agree; SA=strongly agree. Circle one response on each line.					
My partner and I are both committed to not dating other people.	SD	D	N	A	SA
My partner and I are dating each other exclusively.	SD	D	N	A	SA
My partner and I are mutually committed to each other.	SD	D	N	A	SA
My partner and I have made an explicit commitment to each other.	SD	D	N	A	SA

Appendix KK

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH The Pennsylvania State University

Title of Project: Phase III– Survey Design: A Test of the Message
Framing Guilt Appeals Model

Principal Investigator: Judith L. Weiner, Penn State Building, University Park,
PA 16802 (814) 865-0100 jlw350@psu.edu

Other Investigator(s): Roxanne L. Parrott, Penn State Building, University Park,
PA 16802 (814) 865-6255 rlp18@psu.edu

1. Purpose of the Study: The purpose of this research study is to explore college students' understanding of relationships and personal codes of conduct regarding sexual behavior.
2. Procedures to be followed: You will be asked to complete a survey.
3. Discomforts and Risks: There are no risks in participating in this research beyond those experienced in everyday life. Some of the questions are personal and might cause discomfort.
4. Benefits:
 - a. You might learn more about yourself by participating in this study. In addition, you might have a better understanding of how important relationships are to you and realize that others have had similar experiences as you have.
 - b. This research might provide a better understanding of how relationships affect college students. This information could help plan, revise and advance educational programs regarding sexual health.
5. Duration: It will take approximately half an to participate and complete a survey.
6. Statement of Confidentiality: Only the person in charge, and her/his assistants, will know your identity. If this research is published, no information that would identify you will be written.
7. Right to Ask Questions: You can ask questions about the research. The person in charge will answer your questions. Contact Judith L. Weiner at 865-0100 with questions. If you have questions about your rights as a research participant, contact Penn State's Office for Research Protections at (814) 865-1775.

8. Compensation: Participants will receive participation credit for their CAS 100A course. There is another option to participating to earn course participation credit. This option is to read a speech and write a 2-page written critique. You may select a speech from the following web site, as long as it is not one for which you have already written a critique:
<http://www.americanrhetoric.com/newtop100speeches.htm>.
9. Voluntary Participation: You do not have to participate in this research. You can end your participation at any time by telling the person in charge. You do not have to answer any questions you do not want to answer.

I, _____ (please print name) agree to participate as a volunteer in this experiment as an authorized part of the education and research program of the Pennsylvania State University.

I understand the information given to me, and I have received answers to any questions I may have had about the research procedure. I understand and agree to the conditions of this study as described. To the best of my knowledge and belief, I have no physical or mental illness or difficulties that would increase the risk of me participating in this study.

I understand that I will receive course participation credit for participating, and that I am entitled to no other compensation.

I understand that my participation in this research is voluntary, and that I may withdraw from this study at any time by notifying the person in charge.

I am 18 years of age or older.

If you consent to participate in this research study and to the terms above, please sign your name and indicate the date below.

I understand that I will receive a signed copy of this consent form to keep for my records.

Participant Signature

Date

The informed consent procedure has been followed.

Investigator Signature

Date

VITA

Judith L. Weiner

Address: The Annenberg School for Communication
3620 Walnut Street
University of Pennsylvania
Philadelphia, PA 19104-6220
E-mail: JWeiner@asc.upenn.edu

Education

The Pennsylvania State University

Roxanne L. Parrott, advisor
Ph.D. in Communication Arts & Sciences
December, 2004

Kent State University

M.A. in Communication Studies
December, 1998

Queens College

B.A., Interdisciplinary: Biology/ Physical Education
February, 1995

Publications

- Afifi, W. A., & **Weiner, J. L.** (in press). Toward a theory of motivated information management. *Communication Theory*.
- Silk, K. J., **Weiner, J. L.**, & Parrott, R. L. (in press). Gene cuisine or Frankenfood?: The theory of planned behavior as an audience segmentation strategy for messages about GM foods. *Journal of Health Communication*.
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Awards

Department of Communication Arts & Sciences, Health Communication Dissertation Research Award (\$500.00), Pennsylvania State University, Spring 2004.
Research and Graduate Student Office (RGSO) Graduate Student Dissertation Support Grant (\$2000.00), Pennsylvania State University, Fall 2003.