

Japanese College Students' Exposure to Sexually Explicit Internet Material (SEIM)
and Sexual Attitudes

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ABSTRACT

This study examined Japanese college students' ($N=476$) use of sexually explicit material in mass media (i.e., print, electronic, and the Internet) and its association with their sexually permissive attitudes and perceptions of women. Results indicated that Japanese college students were most exposed to sexually explicit material in the print media followed by the Internet and the electronic media. In addition, participants' exposure to sexually explicit Internet material (SEIM) was a stronger predictor of their sexually permissive attitudes than their exposures to sexually explicit material in the traditional media (i.e., print and electronic media). However, participants' exposures to sexually explicit material in the traditional media were stronger predictors of Japanese college students' perceptions of women than their exposure to SEIM. Furthermore, sexual interest mediated the relationship between exposure to sexually explicit material on the internet and perceptions of women. Results are discussed in light of cultivation theory, the uses and gratifications perspective, and prior literature in the use of sexually explicit material and its associations with sexually permissive attitudes and perceptions of women.

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TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	vi
CHAPTER ONE: Introduction.....	1
Sexually Explicit Internet Material (SEIM).....	2
Sexual Explicit Material on the Internet and in the Traditional Media....	3
Dependent Variables.....	4
Sexually Explicit Material in Japan.....	6
Definitions.....	7
Theoretical Frame Works.....	8
Research Questions and Hypotheses.....	9
CHAPTER TWO: Method.....	13
Participants.....	13
Procedures.....	13
Measurements.....	14
CHAPTER THREE: Results.....	17
Exposure to SEM on the Internet and in the Traditional Media.....	17
Exposure to sexually explicit material and Pre-existing Conditions.....	17
SEIM and Sexually Permissive Attitudes and Perceptions of Women....	21

Mediation Analyses-Sexual Interest as a Mediator.....	25
CHAPTER FOUR: Discussion.....	28
Summary.....	28
The Use of Sexually Explicit Material.....	28
Sexually Permissive Attitudes.....	31
Perceptions of Women.....	32
Limitations and Future Study.....	33
Conclusion.....	35
REFERENCES.....	36
APPENDICES.....	42
A. Survey Questionnaire English Version.....	42
B. Survey Questionnaire Japanese Version.....	47

CHAPTER ONE

Introduction

The study of the Internet and sexuality has received attention since the mid-1990s and the amount of research is increasing over the years due to the concern that adolescents and young adults rely more on the media for knowledge about sex instead of conventional socialization channels such as parents and schools (Aubrey, Harrison, Kramer, & Yellin, 2003; Brown & L'Engle, 2009; Lo & Wei, 2005; Peter & Valkenburg, 2006b). However, most of the studies have focused on pathological outcomes, for example, Internet addiction and its negative consequences (e.g., violence and criminal acts; Griffin-Shelley, 2003). Hence, Carroll et al., (2008) call for more research on other dependent variables to expand our understanding of the use of Internet and its effects. In addition, media studies of sexually explicit material have been conducted in a few countries to date (e.g., Hong Kong, Netherlands, Sweden, Taiwan, and the United States). Thus, we know little about the cultural and social influences on adolescents' and young adults' use of sexually explicit material in media and its subsequent influences on them (Peter & Valkenburg, 2008b). More research from different cultures is needed to have a better understanding of the social and cultural influences on the use of SEIM and its subsequent effect (Peter & Valkenburg, 2008b). Extending previous research on the effects of sexually explicit material in media, the present study considers college students' perspectives in the Japanese cultural context.

College students are considered as older adolescents and might use SEIM more often than younger adolescents (Carroll et al, 2008; Ybarra & Mitchell, 2005). According to the information and communications white paper (The ministry of internal affairs and communications (MIC) Japan, 2007), older adolescents used Internet the most (94.4%) in

Japan in 2006 among all age groups. In addition, it is difficult to conduct research on adolescents under 18 years old due to ethical and legal problems. Hence, the first goal of this study is to examine the use of SEIM and its association with sexually permissive attitudes and perceptions of women.

Another purpose of this study is to test the mediation model of sexual interest between the use of SEIM and sexually permissive attitudes and perceptions of women. Peter and Valkenburg's study (2008b) demonstrates that the use of SEIM influenced sexual interest, but it does not show how adolescents think about sex as a result of using SEIM. Potentially, the present study could enhance our understanding of the direct and indirect effects of exposure to SEIM on sexually permissive attitudes and perceptions of women.

Sexually Explicit Internet Material (SEIM)

The Internet boasts of its share of sexually explicit material due to its "triple-A" engine of accessibility, affordability, and anonymity (Cooper, 1998). There has been a large increase in Internet usage in Japan, jumping dramatically from 9.2% in 1997 to 44.9% in 2002, whereas, in the U.S., Internet use was 22.1% in 1997 and 55.2% in 2002 (Ono & Zavondny, 2006). About 69% Internet use in Japan was reported in a 2007 IT white paper (The Japanese ministry of internal affairs and communications, 2007). Peter and Valkenburg (2006a) argue that "More than any other medium, the Internet is a sexual medium" (p.178). Sex-related words appear constantly on the most frequently used terms in search engines (Cooper, Scherer, Boies, & Gordon, 1999; Peter & Valkenburg, 2006b). Young adults could easily find sexually explicit material through those search engines. People often come across sexually explicit material even when they are looking at non-related home pages (Shim, Lee, & Paul, 2007). Once a person clicks (even accidentally) the link of web pages which contain

sexually explicit material, this person may possibly get many advertisements about similar web pages' related material on her/his e-mail (Shim, Lee, & Paul, 2007). Based on previous purchases or 'Internet activity', one of the big bookstores on the net automatically selects the books or items which might interest the Internet users. Hence, it is difficult to avoid sexual materials during their online activities (Shim, Lee, & Paul, 2007).

Sexual Explicit Material on the Internet and in the Traditional Media

This study focused on the use of SEIM with users' sexually permissive attitudes and perceptions of women. However, adolescents and young adults might look for sexual content not only on the Internet but also in other media (Lo & Wei, 2005; Peter & Valkenburg, 2006a). Bleakley, Hennessy, Fishbein & Jordan's (2009) three wave longitudinal survey found that television and movies were reported as the most informative media among cotemporary media outlets (i.e., television, movies, music, Internet, magazines, and video games). However, other previous research showed that the most used source of sexually explicit material among adolescents and young adults was the Internet (Lam & Chan, 2007; Lo & Wei, 2005; Peter & Valkenburg, 2006a). Thus, the current study would examine not only sexual explicit material on the Internet but also in other media.

The term 'traditional media' has been used in several studies with slightly different interpretations among scholars (Lo & Wei, 2005; Peter & Valkenburg, 2007a; Traeen, Nilsen & Stigum, 2006). For example, Lo and Wei (2005) examined the use of Internet pornography included seven traditional forms of pornographic material (i.e., R-rated movies, R-rated rental films, R-rated movies on cable, sexually explicit movies on special cable channels, pornographic magazines, pornographic books, and pornographic comics). On the other hand, Traeen, Nilsen, and Stigum (2006) included only two forms of material under traditional

media (magazines and films). In this study, traditional media include both print media and electronic media. Print media refer to magazines, books, and comic books. Electronic media refer to movies, videos, TV, and DVDs, including animation on those media outlets. SEIM differ in many ways from what we call traditional media. SEIM allow the users to search for specific content according to their preferences (Isaac & Fisher, 2008). The Internet also enables people to access sexually explicit material more easily and privately, and less expensively (Cooper, McLoughlin, & Campbell, 2000).

Dependent Variables

Two dependent variables, sexually permissive attitudes and perceptions of women, were included in the study on which the influence of the use of sexually explicit material in media was examined. These dependent variables were frequently studied in previous research examining exposure to sexually explicit material on the Internet (Barak, Fisher, Belfry & Lashambe, 1999; Lo & Wei, 2005; Peter & Valkenburg, 2008a). Previous research indicated that sexually explicit Internet material (SEIM) typically shows unaffectionate and uncommitted sex with male dominance and the objectification of women (Brown & L'Engle, 2009; Lam & Chan, 2007; Peter & Valkenburg, 2007a). Much concern has been raised that the use of SEIM may be associated with young adults' development of unrealistic and/or undesirable ideas about sexuality (Lo & Wei, 2005; Peter & Valkenburg, 2006a, 2008a). Thus, the present study examined the association between exposure to SEIM and sexually permissive attitudes and perceptions of women among Japanese college students.

Sexually permissive attitudes. In most of the Western and Eastern societies, extramarital sex is considered wrong or immoral (Lo & Wei, 2005). Prior studies found that the exposure to sexually explicit material was associated with viewers' sexually permissive

attitudes (Carroll et al., 2008; Lo & Wei, 2005). For example, Lo and Wei (2005) found that Taiwanese adolescents' exposure to SEIM was positively associated with their sexually permissive attitudes. In general, sexually permissive attitudes refer to allowance to pre-marital/extra-marital sex, and/or having more than one sexual partners. Prior studies also show that the more adolescents and young adults exposed themselves to sexually explicit material, the more likely they were to be accepting of casual sex (Carroll et al, 2008; Lo & Wei, 2005; Peter & Valkenburg's, 2006a). Sexually permissive attitudes might be positively associated with pre-marital or unwanted pregnancy, ethos of monogamy, and increased risk for sexually transmitted infections (Carroll et al., 2008).

Perceptions of women. Perceptions of women in this study refer to the notions of women as sexual objects and being sexually promiscuous. The notion of sexual objects refers to men considering sexual appeal in terms of women's outer appearance (Peter & Valkenburg, 2007a). In the past three decades, numerous research projects have been conducted to examine the association between exposure to sexually explicit material and variety of gender stereotypes and sexual beliefs (Peter & Valkenburg, 2007a; Ward, 2003). However, the study of the association between SEIM and viewer's sexual belief is scarce (Isaacs & Fisher, 2008; Lam & Chan, 2007; Peter & Valkenburg, 2007a).

Peter and Valkenburg's (2007a) research with Dutch adolescents found that exposure to SEIM was positively associated with the perceptions of women as sex objects. They also found that exposure to audiovisual sexually material on the Internet was a stronger predictor of perceptions of women as sex objects than exposure to such material on video or DVD. Many studies have indicated that mass media typically portray women as sexually promiscuous and indiscriminating (Weaver, 1994; Harris & Scott, 2002). For example,

Zillmann and Bryant's (1988) research shows that sexually explicit material depicts women as enjoying sexual aggression and rape. Additionally, much sexually explicit material does not show the consensus between sex partners as a basis for sexual activities, which might misinform the viewers about women's attitudes toward extreme sexual aggression (Peter & Valkenburg, 2007b). This misperception of women is dangerous because it might accelerate sexual harassment and other unwelcome sexual behavior against women (Brown & L'Engle, 2009).

Sexually Explicit Material in Japan

The majority of the studies examining the effects that exposure to sexually explicit material in mass media has on adolescents' and adults' perceptions of women and sexual attitudes have been conducted in the West (Traeen, Nilsen, & Stigum, 2006; Peter & Valkenburg, 2008b; Ybarra & Mitchell, 2005). For example, Peter and Valkenburg's studies (2006a, 2007a, and 2008a) were conducted in the Netherlands which usually is referred to as liberal to sexually explicit material and people's attitudes toward sex (Peter & Valkenburg, 2006a). In contrast, the Japanese society is considered as conservative in terms of people's attitudes towards sexually explicit material. Also, Japan has been considered one of the most interesting countries in terms of the use of sexually explicit material (Harris & Scott, 2002). Japan has concrete constitutional codes about sexually explicit material. Section 175 of the Japanese Criminal Code prohibits the selling of obscene material in Japan (Alexander, 2003). However, the ambiguity of the definition of obscene has complicated consequences. On the one hand, comics and books which depict sexually explicit scenes are sold in normal bookstores and everybody is able to buy them in Japan (Diamond & Uchiyama, 1999). On the other hand, exposure of sexual genitals of grown men and women is prohibited even for

adults in Japan. Playboy and Penthouse magazines were banned totally in Japan until 1975 due to their display of pubic hair. Now they are allowed to be imported into Japan, if pictures of pubic hair were 'sandpapered' or rendered opaque (Diamond & Uchiyama, 1999).

However, the Internet enables Japanese people to access sexually explicit material that include banned material. Thus, Japanese people could access the same level of sexually explicit material like people in other countries due to the development of the Internet.

Definitions

When studying the effects of sexually explicit material, conceptual and operational definitions of terms are important. Conceptually, any material which gives people a sexual physiological reaction in any way can be called sexually explicit material (SEM), although what would be the erotic cues varied among individuals (Fisher & Barak, 2001). In this paper, the operational definition of the sexually explicit material (SEM) is developed from Peter and Valkenburg's (2007a) definition. Sexually explicit material in current study includes semi-explicit material that depicts sexual matters in indirect ways (e.g., it may contain nudity, but it is not the focus of the depiction, and sexual intercourse may be implied or depicted, but the depiction remains discreet) as well as sexually explicit material that is not allowed for people under 18 years old, including banned material in Japan (i.e., pictures, movies, comics, and animations that portray exposed genitals and/or people having sex). In general, research of sexually explicit material has not included comics and animations as outlets of such material. Japanese comics are popular among Japanese people regardless of their age or gender. Japanese comic's depiction of violence and sex is also notorious (Daliot-Bul, 2007). Hence, in order to fully understand Japanese college students' use of sexually explicit material, the current study also included comics and animations as outlets of sexually explicit

material.

Theoretical Frame Works

Gerbner's cultivation theory has been used as a theoretical framework for most correlation analyses on sexual attitudes, behaviors, and the use of sexually explicit material in media (Aubrey, Harrison, Kramer, & Yellin, 2003). Cultivation theory explains the relationship between heavy consumption of media and its influence on a person's perceptions of the world (Signorielli, Gerbner, & Morgan, 1995). Cultivation theory assumes that an individual's repeated exposure to the media cultivates that person's perspective that is more similar to what the media has created.

Many studies rely on cultivation theory to explain the relationship between media use and its effect, however, some media researchers have realized that it exaggerates the effects of total exposure across program types and downplays individuals' variations in media selection and consumption patterns (Potter, 1993). In that regard, the uses and gratifications perspective provides an additional framework for understanding media effects by considering the influence of the media environment and characteristics differences (Shah, McLeod, & Yoon, 2001). According to the uses and gratifications perspective, the audience plays an important role, that is, it is up to the individual to choose media or media content to fulfill their own needs or gratifications (Roggiero, 2000). The message received by that individual is filtered or mediated by the receiver's characteristics and social context. Hence, media effects vary depending on the receiver's feelings of gratification from the message and their social and psychological circumstances (Rubin, 2002). The current study examines the association between some preexisting characteristics (e.g., gender, age, personality characteristics, and social context) and the use of sexually explicit material in the media.

The uses and gratifications framework argues that there are certain pre-media use variables that affect patterns of media use and effect, and this approach has been used in coordination with analyses of media influence on a given set of criterion variables (Holbert & Stephenson, 2003). Researchers have recognized the importance of indirect effects for some time, and the uses and gratifications perspective bolstered it theoretically. However, indirect effects have been overlooked in most empirical studies (Holbert & Stephenson, 2003). Holbert and Stephenson (2003) stated that, “Each specific indirect effect isolates and assesses the role of single intervening variable in a given relationship” (p.557). Guided by the uses and gratifications perspective and prior research in sexually explicit material (e.g., Peter & Valkenburg, 2006a, 2008b), the current study considers both the direct and indirect effects (i.e., mediation effect) that the use of sexually explicit material has on users’ sexually permissive attitudes and perceptions of women.

Research Questions and Hypotheses

SEIM satisfies individual’s needs and gratifications more easily than any other traditional media. The Internet has created an unprecedented opportunity for individuals to have anonymous, cost-free, and unregulated access to an unlimited range of sexually explicit material (e.g., Bussell, 2001; Fisher & Barak, 2001). In addition, the contents of SEIM differ from those found in other traditional media, such as magazines, books, TV programs, and videos in its interactive features (e.g., erotic chat channels and cybersex) and availabilities of rare contents (e.g., gay and lesbian contents) (Traeen, Nilsen & Stigum, 2006). Thus, Cooper and Griffin-Shelley (2002) called SEIM as next sexual revolution. In addition, previous studies indicated that the Internet was used the most as a source of sexually explicit material among adolescents and young adults (Lam & Chan, 2007; Lo & Wei, 2005; Peter &

Valkenburg, 2006a). Thus, this study hypothesizes:

H1: College students will expose themselves to sexually explicit Internet material (SEIM) more frequently than they do in each traditional media (i.e., print and electronic).

To what extent and which pre-existing conditions affect college students' use of sexually explicit material has been inconsistent among studies. Steele and Brown's (1995) study indicated that gender, ethnicity, developmental characteristics (e.g., sexual experience), and social context variables (e.g., parental control) were associated with adolescents' selection of media content. Specifically, Peter and Valkenburg (2006b) found that gender and personality characteristics were related to exposure to sexually explicit material online. However, age, ethnicity, pubertal status, sexual experience, parental control, religiosity, and peer culture were not associated with exposure to sexually explicit material online. Also, Peter and Valkenburg (2006a) found that the adolescents' sexual interests were positively associated with their exposure to SEIM. Thus, my first research question is:

RQ1: To what extent will pre-existing conditions (i.e., gender, age, personality characteristics, and social context) affect college students' exposure to sexually explicit materials (SEM) in the media?

Specifically, prior research has shown strong correlations between gender and exposure to sexually explicit material. Males are more likely to have higher interest in sexually explicit material. Males might have a stronger desire to seek sexually explicit material than women (Brown & L'Engle, 2009; Lo & Wei, 2005; Peter & Valkenburg, 2006b). Sexually explicit material in media might be appealing to male audiences more because the target audience of that material is typically men (Harris & Scott, 2002). Thus, this study predicts that:

H2: Controlling for other preexisting conditions, gender will be a significant predictor of exposure to sexual explicit material (SEM) with male participants having a higher exposure than female participants.

Many studies suggested that the use of sexually explicit material was associated with people's attitudes and behaviors toward sex. Lo and Wei (2005) found that Internet pornography exposure was more strongly correlated with sexually permissive attitudes than exposure to traditional forms of pornography (e.g., print and electronic). Prior research has demonstrated that use of sexually explicit material was associated with undesirable perceptual consequences toward women. Prior studies showed that the exposure to sexually explicit material was positively related to the formation and reinforcement of inappropriate or undesirable perceptions of women (Peter & Valkenburg, 2007a, Weaver, 1994, Zillmann & Bryant, 1988). Zillmann and Bryant's (1988) experiment with college students outlined the relationship between exposure to sexually explicit material and the acceptance of premarital sex. Furthermore, research suggested that sexually explicit on-line movies were positively related to notions of women as sex objects (Peter & Valkenburg, 2007a). Thus, this study hypothesizes:

H3: Participants' exposure to sexually explicit Internet material (SEIM) will be a stronger predictor of their sexually permissive attitudes and perceptions of women than their exposure to sexually explicit material in the traditional media (i.e., print and electronic)

Many researchers suggested that in order to examine contributions of exposure to SEIM, mediation effects had to be considered. Peter and Valkenburg's (2008b) three-wave panel study selected 'sexual preoccupancy' as an outcome variable, which is labeled as sexual interest in this study. Both sexual preoccupancy and sexual interest refer to the degree

the participants think about or are interested in sex. Peter and Valkenburg's (2008b) three-wave panel study demonstrated that Dutch adolescents' exposure to SEIM affected their sexual interests. In addition, another study showed that sexually permissive attitudes were positively related to sexual interest (Snell, Fisher, & Schuh, 1992). However, the mediation effect of sexual interest between SEIM and people's attitudes toward sex and perceptions of women has not been studied. Hence, the current study tests the mediation model of sexual interest between the use of SEIM and sexual permissive attitudes and perceptions of women. Thus, my second research question is proposed.

RQ2: Will sexual interest mediate relationships between exposure to sexually explicit Internet material (SEIM) and college students' sexually permissive attitudes and perceptions of women?

CHAPTER TWO

Method

Participants

This survey was conducted with Japanese college students who were 18 years old or older ($N= 476$). This survey was conducted in six different universities in Tokyo area ($n = 292$), Aichi prefecture ($n = 89$), and Niigata prefecture ($n = 95$). Tokyo is the capital city and located on the Eastern side of the main island in Japan. Aichi prefecture is a big city located near the center of the Japanese main island. Niigata prefecture is medium sized city located on the Northern part of the Japanese main island. Participants were college students who were volunteers and recruited through word of mouth with the help of several Japanese nationals. Respondents were assured of confidentiality and anonymity, and were informed that they could withdraw at any time. Among the 476 participants, 192 were males (i.e., 40.3%) and two participants did not indicate their gender (M age = 19.53 years old, $SD = 1.25$, Range = 18 - 29). The survey lasted about 30 minutes. The original survey was designed in English, which was then translated to Japanese by the researcher and two other bilingual Japanese graduate students who were studying in the United States. Back translation was used to make sure that the translated measurement represents the original meaning of the constructs.

Procedures

Participants were asked to complete a questionnaire composed of two major sections (see Appendix A and B). In the first section, participants answered questions regarding their demographics (e.g., gender and age), social context variables (e.g., parental control, sexual experiences), personality characteristics (e.g., life satisfaction), and sexually

explicit media uses. In the second section, participants answered questions measuring their attitudes toward sex and perceptions of women.

Measurements

Social context variables. Parental control, relationship status, and sexual experiences were examined to measure participants' social context variables. Parental control was assessed with an item that was adopted from Peter and Valkenburg (2006a) (i.e., my parents know when I am surfing the Internet) on 5-point scale (1 = disagree and 5 = agree). Higher values indicate higher parental control. The current relationship status was examined by asking participants whether they were currently in a romantic relationship (i.e., Yes or No). Four items were used to measure participants' sexual experience (i.e., "How often you had experience in holding hands with your romantic partners?"; "How often you were kissing your romantic partners?"; "How often you had experienced love touching with romantic partners?"; "How often you had experience of sexual intercourse with romantic partners?") on 5-point scales (1 = Never and 5 = Often). Items were adopted from Lo and Wei (2005). The reliability coefficient was satisfactory (Cronbach's alpha = .96: $M = 2.79$: $SD = .07$).

Sexual interest and life satisfaction. Sexual interest was measured by three items (i.e., I am interested in sex; I often think about sex; I have to struggle to control my sexual thoughts and behavior) on 5-point scales (1 = disagree entirely and 5 = agree entirely). These items were adopted from Peter and Valkenburg (2006a). The reliability coefficient was satisfactory (Cronbach's alpha = .81: $M = 2.60$: $SD = .05$).

Life satisfaction was measured by five items adapted from the life scale (Diner, Emmons, Lansen, & Griffin, 1985). Those items assess whether the participants are satisfied with their lives (e.g., in most ways my life is close to my ideal; if I could live my life over, I

would change almost nothing) on 5-point scales (1 = disagree entirely and 5 = agree entirely).

The reliability coefficient was satisfactory (Cronbach's alpha = .81; $M = 2.50$; $SD = .04$).

Sexually explicit material (SEM) use on the Internet. Ten items developed from Peter and Valkenburg (2006a) and Shim, Lee, and Paul (2007) were used to assess the sexually explicit material use on the Internet on 6-point scales (1 = never, 2 = less than once a month, 3 = one to three times a month, 4 = once a week, 5 = several times a week, 6 = everyday). Examples of the items include, "I saw still pictures of exposed genitals on the Internet in the last in the six months," "I saw movies of people having sex on the Internet in the last six months," and "I purchased sexual explicit magazines on the Internet in the last six months." The reliability coefficient was satisfactory (Cronbach's alpha = .82). A mean index was created to represent the frequency of participants' exposure to sexually explicit material on the Internet ($M = 1.43$; $SD = .03$).

Sexually explicit material (SEM) use in the traditional media. Thirteen items developed from Peter and Valkenburg (2006a) were used to assess the sexually explicit material use in traditional media on 6-point scales (1 = never, 2 = less than once a month, 3 = 1 to 3 times a month, 4 = once a week, 5 = several times a week, 6 = everyday). Those items were divided into two categories: the SEM use in the print media (6 items) and the SEM use in the electronic media (7 items). Sexually explicit comics and animations were included because plenty of sexually explicit comics and animations are available in Japan. Examples of the SEM use in the print media include, "I saw still pictures of exposed genitals in comic books in the last six months," "I saw still pictures of people having sex in magazines in the last six months." The reliability coefficient was satisfactory (Cronbach's alpha = .87).

Examples of the SEM use on the electronic media include, "I saw movies people having sex at

movie theaters in the last six months” and “I saw erotic animation on Video/TV/DVD in the last six months.” The reliability coefficient was satisfactory (Cronbach’s alpha = .74). A mean index was created to represent the frequency of participants’ exposure to sexually explicit material in print media ($M = 1.67$; $SD = .04$) and electronic media ($M = 1.30$; $SD = .02$) respectively.

Sexually permissive attitudes. Sexually permissive attitudes were measured with three items on 5-point scales (1 = strongly disagree and 5 = strongly agree), (i.e., “It is allowable for married men to have extramarital sex,” “It is allowable for married women to have extramarital sex,” “It is allowable for married men/women to have more than one sexual partner.” Items are adopted from Lo and Wei (2005). The reliability coefficient was satisfactory (Cronbach’s alpha = .92; $M = 1.63$; $SD = .44$).

Perceptions of women. Perceptions of women were measured with three items adapted from the Ward scale (2002) (i.e., unconsciously, girls always want to be persuaded to have sex; an attractive woman should expect sexual advances; sexually active girls are more attractive partners) on 5-point scales (1 = disagree completely and 5 = agree completely). The reliability coefficient was satisfactory (Cronbach’s alpha = .79; $M = 2.10$; $SD = .04$).

CHAPTER THREE

Results

H1: Exposure to Sexually Explicit Material (SEM) on the Internet and in the Traditional Media

Hypothesis one predicted that college students would expose themselves to sexually explicit material on the Internet more frequently than they did in each traditional media. Three paired *t* tests were conducted to address hypothesis one. Results indicated that Japanese college students exposed themselves to sexually explicit material in the print media the most ($M = 1.55$, $SD = .69$), followed by Internet ($M = 1.43$, $SD = .57$) with the electronic media ($M = 1.30$, $SD = .46$) in the third place. Participants' exposure to sexually explicit material in the print media was significantly more than the exposure to sexually explicit material on the Internet ($t(364) = -3.80$, $p < .001$). Participants' exposure to sexually explicit material on the Internet was significantly higher than the exposure to sexually explicit material on the electronic media ($t(361) = 5.06$, $p < .001$). Participants' exposure to sexually explicit material in the print media was significantly higher than the exposure to sexually explicit material on the electronic media ($t(366) = 8.39$, $p < .001$). However, the overall exposure to sexually explicit material was low (i.e., significantly below 3) on the 6-point scales: 44% of participants never exposed themselves to the SEIM, 22% of participants never used sexually explicit material in the print media, and 51% of the participants never used sexually explicit material on the electronic media in the last six month.

RQ1 and H2: Exposure to Sexually Explicit Material and Pre-existing Conditions

The research question asked whether pre-existing conditions (i.e., gender, age, sexual interest, life satisfaction, sexual experiences, parental control, and romantic

relationship) would predict participants' exposure to sexually explicit material on the Internet and in the traditional media. Hypothesis two predicted that gender would be a significant predictor of exposure to sexually explicit material on the Internet, in the print media, and on the electric media, controlling for other pre-existing conditions. To address research question one and hypothesis two, three separate hierarchical regression analyses were conducted on the three criterion variables respectively (i.e., sexually explicit material use on the Internet, in the print, and on the electronic media). For each regression analysis, age, sexual interest, life satisfaction, sexual experiences, parental control, and status of romantic relationship were entered in model one and gender was entered in model two as the predictor variable. The results of the analyses are presented in Table 1.

Table 1. Hierarchical multiple regression :Relationships between use of sexually explicit material (SEM) and preexisting conditions

	Use of SEM on the Internet			Use of SEM in the print media			Use of SEM on the electric media		
	R^2/R^2 Change	β	sr^2	R^2 / R^2 Change	β	sr^2	R^2 / R^2 Change	β	sr^2
1. Pre-Existing Conditions	.30***			.29***			.19***		
Age		.11*	.01		.11*	.01		.20***	.04
Sexual interest		.50***	.24		.47***	.21		.34***	.12
Life satisfaction		.03	.00		.07	.00		-.13	.00
Sexual experiences		.06	.26		.05	.00		.10	.01
Parental control		-.08	.01		-.09	.01		.07	.00
Relationship status		.11	.01		.17***	.02		.02	.00
2. Gender	.15***			.05***			.04***		
Age		.01	.00		.07	.00		.14*	.02
Sexual interest		.33***	.09		.36***	.10		.25***	.05
Life satisfaction		.06	.00		.08	.01		.00	.00
Sexual experiences		.07	.00		.06	.10		.12	.01
Parental control		-.06	.00		-.07	.00		.08	.01
Relationship status		.06	.00		.15*	.02		.00	.00
Gender		.44***	.15		.26***	.05		.24***	.04

Note. Total sample ($N = 476$). *** $p < .001$, ** $p < .01$, * $p < .05$.

Use of Sexually Explicit Material on the Internet

Model one statistics. The first set of pre-existing variables predicted a significant amount of variance in the use of sexually explicit material on the Internet ($R^2 = .30$, $F(6, 312) = 22.5$, $p < .001$). Regression analysis results indicated that sexual interest was a significant predictor of college students' exposure to sexually explicit material on the Internet ($\beta = .50$, $sr^2 = 0.24$, $t = 10.34$, $p < .001$).

Model two statistics. In the second model, gender was entered as the predictor variable. Results supported hypothesis two, which predicted that gender would account for a significant proportion of the variance in college students' exposure to sexually explicit material on the Internet controlling for the effects of other pre-existing conditions, R^2 change = .14, $F(1, 311) = 83.4$, $p < .001$. A significant effect for gender revealed that men ($M = 1.89$, $SD = 0.60$) exposed themselves to sexually explicit material on the Internet more than women ($M = 1.17$, $SD = 0.35$), $\beta = .44$, $sr^2 = 0.15$, $t = 9.13$, $p < .001$.

Use of Sexually Explicit Material in the Print Media

Model one statistics. The first set of pre-existing variables predicted a significant amount of variance in participants' sexually explicit material in the print media ($R^2 = .30$, $F(6, 397) = 28.3$, $p < .001$). Regression analysis results indicated that sexual interest ($\beta = .47$, $sr^2 = 0.21$, $t = 10.83$, $p < .001$) and relationships status ($\beta = .17$, $sr^2 = 0.02$, $t = 3.52$, $p < .001$) were significant predictors of Japanese college students' exposure to sexually explicit material in the print media.

Model two statistics. In the second model, gender was entered as the predictor variable. Results supported hypothesis two, which predicted that gender would account for a significant proportion of variance in the college students' exposure to sexually explicit

material in the print media controlling for the effects of other pre-existing conditions, R^2 change = .05, $F(1, 396) = 30.3, p < .001$. A significant effect for gender revealed that men ($M = 1.89, SD = 0.60$) exposed themselves to sexually explicit material in print media more than women ($M = 1.35, SD = 0.48$), $\beta = .26, sr^2 = 0.04, t = 5.50, p < .001$.

Use of Sexually Explicit Material on the Electronic Media

Model one statistics. The first set of pre-existing variables predicted a significant amount of variance in participants' sexually explicit material on the electronic media ($R^2 = .20, F(6, 314) = 13.1, p < .001$). Regression analysis results indicated that age ($\beta = .20, sr^2 = 0.04, t = 3.78, p < .001$) and sexual interest ($\beta = .34, sr^2 = 0.12, t = 6.57, p < .001$) were significant predictors of college students' exposure to sexually explicit material on the electronic media.

Model two statistics. In the second model, gender was entered as the predictor variable. Results supported hypothesis two, which predicted that gender would account for a significant proportion of variance in the college students' exposure to sexually explicit material on the electronic media controlling for the effects of other pre-existing conditions, R^2 change = .04, $F(1, 313) = 17.9, p < .001$. A significant effect for gender revealed that men ($M = 1.53, SD = 0.53$) exposed themselves to sexually explicit material on the electronic media more than women ($M = 1.16, SD = 0.35$), $\beta = .24, sr^2 = 0.04, t = 4.23, p < .001$.

H3: Sexually Explicit Internet Material (SEIM) and Sexually Permissive Attitudes and Perceptions of Women

Hypothesis three predicted that the exposure to sexually explicit Internet material (SEIM) would be a stronger predictor of college students' sexually permissive attitudes and perceptions of women than sexually explicit material in the traditional media (i.e., print and

electronic media). To address hypothesis three, two hierarchical regression analyses were conducted. For each regression analysis, the use of sexually explicit material in the traditional media was entered in model one and the use of SEIM were entered in model two as the predictor variable. Hierarchical regression analyses results indicated that hypothesis three was partially supported. For sexually permissive attitudes, SEIM was a stronger predictor than sexually explicit material in the traditional media (see table2). However, for perceptions of women, SEIM was not a stronger predictor than traditional sexually explicit material. Instead, sexually explicit materials in the traditional media (print and electronic) were stronger predictor of perceptions of women than SEIM (see table3).

Sexually Explicit Internet Material (SEIM) as a Stronger Predictor of Sexually Permissive Attitudes

Model one statistics. The uses of sexually explicit material used in the traditional media (i.e., print media and electronic media) predicted a significant amount of variance in Japanese college students' sexually permissive attitudes ($R^2 = .07$, $F(2, 353) = 13.5$, $p < .001$). Regression analysis results indicated that the uses of sexually explicit material in the print media ($\beta = .15$, $sr^2 = 0.02$, $t = 2.49$, $p < .05$) and on the electronic media ($\beta = .17$, $sr^2 = 0.02$, $t = 2.85$, $p < .01$) were significant predictors in college students' sexually permissive attitudes.

Model two statistics. In the second model, the use of sexually explicit material on the Internet was entered as the predictor variable. Controlling for the effects of the uses of sexually explicit material in the traditional media, the exposure to sexually explicit material on the Internet significantly predicted sexually permissive attitudes and behaviors (R^2 change = .02, F change (2, 353) = .687, $p < .01$). Thus, the more college students exposed

themselves to sexually explicit material on the Internet, the more they endorsed sexually permissive attitudes ($\beta = .17$, $sr^2 = 0.02$, $t = 2.62$, $p < .01$).

Table 2

Relationships between sexually explicit material in the traditional media and on the Internet with sexually permissive attitudes			
	R^2 / R^2 Change	β	sr^2
1. Exposure to SEM in the traditional media	0.07***		
SEM use in the print media		0.15*	0.02
SEM use on the electric media		0.17**	0.02
2. Exposure to SEM on the Internet	0.02**		
SEM use in the print media		0.09	0.01
SEM use on the electric media		0.10	0.01
SEM use on the Internet		0.17**	0.02

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Sexually Explicit Internet Material (SEIM) as a Stronger Predictor of Perceptions of Women

Model one statistics. The uses of the sexually explicit material in the traditional media (i.e., print media and electronic media) predicted a significant amount of variance in Japanese college students' perceptions of women ($R^2 = .06$, $F(2, 351) = 12.7$, $p < .001$). Regression analysis results indicated that the uses of sexually explicit material both on electronic media ($\beta = .15$, $sr^2 = 0.02$, $t = 2.63$, $p < .05$) and in the print media ($\beta = .15$, $sr^2 = 0.02$, $t = 2.58$, $p < .05$) were significant predictors of college students' perceptions of women.

Model two statistics. In the second model, the use of sexually explicit material on the Internet was entered as the predictor variable. However, controlling for the uses of traditional media, the exposure to sexually explicit material on the Internet did not significantly predict perceptions of women (R^2 change = .00, F change (1, 350) = .942, $p < .33$). Contrary to the prediction, the use of SEIM was not a significant predictor of perceptions of women ($\beta = .06$, $sr^2 = 0.00$, $t = .97$, $p > .05$).

Table 3

Relationships between sexually explicit material in the traditional media and on the Internet with perceptions of women			
	R^2 / R^2 Change	β	sr^2
1. Exposure to SEM in the traditional media	0.06***		
SEM use in the print media		0.15**	0.02
SEM use on the electric media		0.15**	0.02
2. Exposure to SEM on the Internet	0.00		
SEM use in the print media		0.13*	0.01
SEM use on the electric media		0.13*	0.01
SEM use on the Internet		0.06	0.00

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

RQ2: Mediation Analyses – Sexual Interest as a Mediator

RQ2 asked whether sexual interest would mediate the relationship between college students' exposure to SEIM and their sexually permissive attitudes and perceptions of women. The correlations (see Table 4) showed that the mediator met the prerequisite conditions for mediation analyses (Baron & Kenny, 1986). The predictor variable, the use of SEIM was significantly correlated with the outcome variables (i.e., sexually permissive attitudes and perceptions of women) and with the mediator variable (i.e., sexual interest). To

test the mediation effects, four regression analyses were performed. The first set of analyses (i.e., two regression analyses) examined the relationships between the sexually explicit material used on the Internet, predictor variable, and the mediator variable (i.e., sexual interest) followed by the second set of analyses (i.e., two hierarchical regression analyses) examining the joint effects of the predictor and the mediator variables on the three criterion variables (see Table 5). Sexual interest mediated the relationship between exposure to sexually explicit material on the Internet and perceptions of women (Goodman test = 5.90, $p < .001$). However, sexual interest did not mediate the relationship between exposure to sexually explicit material on the internet and sexually permissive attitudes (Goodman test = 1.84, $p > .05$).

Table 4

Correlations among SEIM, sexual interest, sexually permissive attitudes, and perceptions of women

Variables	1	2	3	4
1. SEIM	-			
2. Sexual interest	.54***	.49***	-	
3. Sexually permissive attitudes	.27***	.22***	.26***	-
4. Perceptions of women	.20***	.42***	.45***	.25***

Note. Total sample ($N = 476$). *** $p < .001$.

Table 5

Relationships between the mediator and sexually permissive attitudes and perceptions of women

	Sexually permissive attitudes			Perceptions of women		
	R^2 / R^2 Change	β	SE	R^2 / R^2 Change	β	SE
1. SEIM	0.08*	0.27***	0.07	0.20***	0.20***	0.04
2. Mediator	0.21*			0.17***		
SEIM		0.13	0.01		-0.07	0.00
Sexual interest		0.08	0.00		0.39***	0.09

Note. Total sample ($N = 476$). * $p < .05$, ** $p < .01$, *** $p < .001$.

CHAPTER FOUR

Discussion

Summary

This research explored Japanese college students' use of sexually explicit material and its association with their sexually permissive attitudes and perceptions of women. The overall exposure to sexually explicit material was low (i.e., significantly below 3) on the 6-point scale. Male college students exposed themselves to the sexually explicit material more than female college students did. Contrary to prior research in the use of sexually explicit material in mass media, Japanese college students reported that they used the print media the most for sexually explicit material. Supporting hypothesis one, the use of SEIM was a stronger predictor than the use of sexually explicit materials in the traditional media (i.e., print and electronic media) of Japanese college students' sexually permissive attitudes. However, the use of SEIM was not a stronger predictor than the uses of sexually explicit material in traditional media of Japanese college students' perceptions of women. Instead, the uses of sexually explicit material in the traditional media were stronger predictors of Japanese college students' perceptions of women. In addition, this study found that sexual interest fully mediated the relationship between exposure to sexually explicit material on the internet and perceptions of women.

The Use of Sexually Explicit Material

Consistent with previous studies (Lo & Wei, 2005; Peter & Valkenburg, 2006a, 2006b), the overall exposure to sexually explicit material was very low on the 6-point scale: the majority of Japanese college students used sexually explicit material either never or less than once a month in the last six months. Only one percent of Japanese college students used

sexually explicit material almost every day.

Consistent with similar studies (Brown & L'Engle, 2009; Tareen, Nilsen, & Stigum, 2006; Peter & Valkenburg, 2006b), male college students exposed themselves to sexually explicit material more than female college students. There might be a couple of explanations of this finding. First, this result might be explained by different expectations in sexual relationships between men and women. In general, it is more likely that men desire a higher frequency of sexual intercourse and a wider range of sexual experiences, and their motivations to have sex are for fun and to achieve gratification while women's motivations to have sex are usually to express love, intimacy, and commitment (Aubrey, Harrison, Kramer, & Yellin, 2003). Goodson, McCormick, and Evans's study (2001) found that the curiosity was the major motivation among undergraduate students in the U.S. for accessing SEIM. Male college students might have more curiosity towards SEIM than female college students. The uses and gratifications approach posits that individuals choose media or media content to fulfill their own need. In that regard, sexually explicit material in the media fit male college students' needs, because most of the sexually explicit material is made for men by men (Harris & Scott, 2002).

Second, this finding might be explained by the different social and cultural expectations toward men and women. In general, the use of sexual explicit material is more socially acceptable for men than women (Traeen et al., 2006). A woman who uses sexually explicit material frequently might be seen as immoral in the Japanese cultural context, which is conservative regarding sexuality. Previous studies show that the majority of women saw sexually explicit material with their partner, whereas men used sexually explicit material alone (Traeen et al., 2006).

Contradictory to the findings of similar studies (Lo & Wei, 2005; Peter & Valkenburg, 2006a, 2006b) and hypothesis one, Japanese college students reported that they used the print media the most for sexually explicit material, which might be a reflection of the unique social and cultural characteristics in Japan. First, comics and magazines are very popular among college students. Many young adults enjoy comics and magazines on public transportation. There are many comics and magazines that are classified as sexually explicit, which are easy to purchase and usually very inexpensive.

Second, according to the Information and Communications White Paper (The ministry of internal affairs and communications (MIC) Japan, 2007), Japan was the third largest country, after the USA and China, in terms of internet-user population. Technology in Japan allows anyone with a mobile phone to easily access the Internet, however, access to sexually explicit material websites is low. This is because mobile internet usage is often accessed during public situations, such as commuting which is very crowded. “The rate of internet capability in mobile phones has reached 72.3%, which is the top of the world with Korea of 59.1% as the 2nd, followed by Finland of 16.5%. The USA is ranked at the 6th with that of 7.9 %” (Negishi, 2003, p.58). Japanese college students’ life styles are unique in that most of the students have to spend a lot of time on public transportation. Many students commute to their schools by train or bus, and this commute can sometimes be more than two hours. Japanese trains and buses are very crowded during rush hours, especially in the city. Because there is little room to open their lap-top computer, people use their mobile phones to get information from the Internet or communicate with friends. Therefore, if the students are accessing the Internet primarily from their mobile phones, it might be difficult to look at sexually explicit materials sites in the public setting. In addition, compared to SEIM, comic

books might be a more socially acceptable source for sexually explicit material.

Lam and Chan (2007) found that the traditional media (i.e., magazines, videos, comics, and movies) was still the dominating source of sexual media among young Chinese men in Hong Kong. However, they predicted that this domination of traditional sexually explicit material was likely to change with the increasing popularity of the Internet. In Japan it is also possible that SEIM will become more popular as a source of sexually explicit material with the popularization of the broadband technology. According to the Information and communications white paper (The ministry of internal affairs and communications (MIC) Japan, 2008), the ministry of internal affairs and communication (MIC) will promote the introduction of next-generation broadband technologies and will take positive action to achieve the goal of nationwide installation of broadband by 2010.

Sexually Permissive Attitudes

Consistent with previous studies (Carroll et al., 2008; Lam & Chan, 2007; Lo & Wei, 2005), college students' exposure to SEIM was associated positively with sexually permissive attitudes. Controlling for the uses of the traditional media, the exposure to SEIM was a significant positive predictor of sexually permissive attitudes. In addition, mediation analysis indicated that sexual interest did not mediate the relationship between college students' exposure to SEIM and their sexually permissive attitudes. That is, Japanese college students' exposure to SEIM was associated with their sexually permissive attitudes directly. However, due to the correlation design of the study, the current study was not able to specify causality. It is possible that Japanese college students who had sexually permissive attitudes tended to use SEIM more than other participants, or that sexually permissive attitudes and exposure to SEIM influence each other reciprocally. Another explanation of this result might

be that those students who were sexually permissive seek out SEIM to enhance their sex lives with offline partners.

Perceptions of Women

Contrary to hypothesis three, the exposure to SEIM was not a stronger predictor of Japanese college students' perceptions of women compared to the uses of sexually explicit material in the traditional media. The uses of sexually explicit material in the traditional media were a stronger predictor of Japanese college students' perceptions of women. It might be due to the level of explicitness of the sexual content in the media. Prior study shows that the level of explicitness of sexual content was associated with perceptions of women (Pardun, L'Engle, & Brown, 2005). It might be plausible to examine the relationships between the levels of explicitness of sexual content and perceptions of women in future studies.

In addition, the present study found that sexual interest mediated the relationship between the exposure to SEIM and perceptions of women. The relationships between exposure to SEIM and perceptions of women were not direct but mediated by Japanese college students' sexual interest. This finding demonstrates that Japanese college students' exposure to SEIM was associated with perceptions of women via users' sexual interest. That is, the more Japanese college students exposed themselves to SEIM, the more they thought about sex and began to see women as sexual objects.

Limitations and Future Study

The purpose of this research is to examine college students' exposure to sexually explicit material and its association with Japanese college students' sexuality. The design of the study does not allow for full explication of the casual relationships among selection/use and effects of sexually explicit material in media. Essentially, the current study is correlational. This study has several limitations related to generalization of the findings.

First, this study focused on SEIM in Japan. However, as the results of this study indicated, more Japanese college students' exposed themselves to sexually explicit material in the print media than on the Internet. In order to understand Japanese college students' use of sexually explicit material and its effects fully, the use of mobile phone and comic books for sexually explicit material should be considered. Second, the presentation of SEIM varied from digitized moving images and hot chats to interactive sexual games on the Internet (Lo & Wei, 2005). Even though SEIM is categorized mainly two different sexual activities: individual and interactive activities (Traeen, Nilsen & Stigum, 2006), this study mostly examined individual activities. Previous studies indicated that women prefer interactive forms of sexual activities while men prefer watching sexually explicit material (Cooper et al, 2002; Traeen et al., 2006). Future research in the use of interactive forms of activities on SEIM is needed to understand Japanese college students' use of SEIM and its influences on users' attitudes and behaviors. Third, a one-time-only survey study is not sufficient to address causality issues and cultivation effects. It will be important to conduct a longitudinal study in the future in order to examine the effects of sexually explicit material in mass media (Brown & L'Engle, 2009; Peter & Valkenburg, 2008b). Fourth, previous studies indicated that people with lower levels of education use sexually explicit material in magazines and

films more than the Internet (Traeen et al., 2006). The participants of this study were college students who were well educated. In the future study, it might be important to include participants with lower levels of education.

Conclusion

The current study is an initial foray in understanding the role of SEIM in young adults' lives in Japan. Specifically, the current study contributes our understanding of Japanese college students' exposure to sexually explicit material and its association with their sexually permissive attitudes and perceptions of women in several ways. First, Japanese college students used the print media the most for sexually explicit material, while the majority of studies show that the Internet is the mostly used media outlet for sexually explicit material (Lo & Wei, 2005; Peter & Valkenburg, 2006a, 2006b). These findings indicate the social and cultural influences on the use of SEIM. Second, the present study used the mediation model of sexual interest between use of SEIM and two outcome variables (i.e., sexually permissive attitudes and perceptions of women). The mediation analyses indicate that the exposure to SEIM was associated with sexually permissive attitudes directly, whereas the exposure to SEIM was associated with perceptions of women via sexual interest. Overall, the frequency of the use of SEIM was low. However, it is possible that SEIM will become more popular with the popularization of the broadband technology in Japan.

References

- Alexander, J. R. (2003). Obscenity, pornography, and the Law in Japan: Reconsidering Oshima's *In the Realm of the senses*. *Asian-pacific Law & Policy Journal*, 4, 148-168.
- Aubrey Jennifer, S., Harrison Kristen, Kramer Leila, & Yellin Jennifer (2003). Variety versus timing: Gender differences in college students' sexual expectations as predicted by exposure to sexually oriented television. *Communication Research*, 30, 432-460.
- Barak, A., Fisher, W. A., Belfry, S., & Lashambe D. (1999). Sex, guys, and cyberspace: Effects of Internet pornography and individual differences on men's attitude toward women. *Journal of Psychology & Human Sexuality*, 11, 63-91.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bleakley, Amy, Hennessy, Michael, Fishbein, Martin & Jordan, Amy (2009). How sources of sexual information relate to adolescents' beliefs about sex. *American Journal of Health Behavior*, 33, 37 -48.
- Brown, D., Jane & L'Engle, Kelly, L. (2009). X – Rated: Sexual attitudes and behaviors associated with U.S. early adolescents' exposure to sexually explicit media. *Communication Research*, 36, 129-151.
- Busselle, R. W. (2001). Television exposure, perceived realism, and exemplar accessibility in the social judgment process. *Mediapscychology*, 3, 43-67.
- Carroll, Jason, S., Padilla-Walker, Laura, M., Nelson, Larry, J., Olson, Chad, D., Barry

- Carolyn, Mcnamara, & Madsen, Stephanie, D. (2008). Generation XXX: Pornography acceptance and use among emerging adults. *Journal of Adolescent Research, 23*, 6-30.
- Cooper, A. (1998). Sexuality and the Internet: Surfing into the new millennium. *Cyber psychology and Behavior, 1*, 181-187.
- Cooper, A. & Griffin-Shelley, E. (2002). Introduction: The Internet: The next sexual revolution. In A. Cooper (Ed.), *Sex and the Internet: A Guidebook for Clinicians* (pp. 1-15). New York, NY: Brunner & Routledge.
- Cooper, Al., Mcloughlin, Irene. P., Campbell, Kevin, M. (2000). Sexuality in cyberspace: Update for the 21st century. *Cyber Psychology & Behavior, 3* 521-536.
- Cooper, A., Scherer, Coralie, R., Boies, Sylvain, C., & Gordon, Barry, L. (1999). Sexuality on the Internet: From sexual exploration to pathological expression. *Professional Psychology: Research and Practice, 30*, 154-164.
- Daliot-Bul, Michal. (2007). Eroticism, grotesqueness and non-sense: Twenty-first century cultural imagery of Japan in the Israeli media and popular culture. *Journal of Intercultural Studies, 28*, 173-191.
- Diamond, M., & Uchiyama, A (1999). Pornography, rape and sex crime Japan. *International Journal of Law and Psychiatry, 22*, 1-22.
- Diner, E., Emmons, R. A., Lansen, R. J., & Griffin, S (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75.
- Fisher, William, A., & Barak, Azy. (2001). Internet Pornography: A social psychological perspective on Internet sexuality. *The Journal of Sex Research, 38*, 312-323.
- Goodson, P., McCormick, D., & Evans, A. (2001). Searching for sexually explicit materials

- on the internet: An exploratory study of college students' behavior and attitudes. *Archives of Sexual Behavior*, 30, 101 – 118.
- Griffin – Shelley, Eric. (2003). The Internet and sexuality: a literature review – 1983 – 2002. *Sexual and relationship Therapy*, 18, 355 – 370.
- Holbert, R. Lance, Stephenson, T. Michael. (2003). The importance of indirect effects in media effects research: Testing for mediation in structural equation modeling. *Journal of Broadcasting & Electronic Media*, 47, 556-572.
- Harris, Richard Jackson & Scott Christina, L. (2002). Effect of sex in the media. In Bryant, Jennings & Zillmann, Dolf (Ed.), *Media effects: Advances in theory and research (2nd ed.)* (pp. 307 – 331). Mahwah, NJ, US: Lawrence Erlbaum Associates Publications.
- Isaacs, Corey, R. & Fisher, William, A. (2008). A computer-based educational intervention to address potential negative effects of Internet pornography. *Communication studies*, 59, 1-18.
- Lam, Chen, Bun, & Chan, Darius, K-S. (2007). The use of cyber pornography by young men in Hong Kong: Some psychosocial correlations. *Archives of Sexual Behavior*, 36, 588-598.
- Lo, V., & Wei, R. (2002). Third-person effect, gender, and pornography on the Internet. *Journal of Broadcasting & Electronic Media*, 46, 13-33.
- Lo, V., & Wei, R. (2005). Exposure to Internet pornography and Taiwanese adolescents' sexual attitudes and behavior. *Journal of Broadcasting & Electronic Media*, 49, 221-237.
- Negishi Masamitsu (2003). Development of mobile phone culture in Japan and its implications to library services: Prospecting information services in coming

- “Ubiquitous Society”. *NII Journal*, 6, 57-67.
- Ono, H., & Zavodny, M. (2006). Digital inequality: A five country comparison using microdata. *Social Science Research*, 36, 1135-1155.
- Pardun, C. J., L’Engle, K., L., & Brown, J. D. (2005). Linking exposure to outcomes: Early adolescents’ consumption of sexual content in six media. *Mass Communication & Society*, 8, 75-91.
- Peter, J., & Valkenburg, P. M. (2006a). Adolescents' exposure to sexually explicit online material and recreational attitudes toward sex. *Journal of Communication*, 56, 639-660.
- Peter, J., & Valkenburg, P. M. (2006b). Adolescents' exposure to sexually explicit material on the Internet. *Communication Research*, 33, 178-204.
- Peter, J., & Valkenburg, P. M. (2007a). Adolescents' exposure to a sexualized media environment and their notions of women as sex objects. *Sex Roles*, 56, 381-395.
- Peter, J., & Valkenburg, P. M. (2007b). Who looks for casual dates on the internet? A test of the compensation and the recreation hypotheses. *New media & society*, 19, 455-474.
- Peter, J., & Valkenburg, P. M. (2008a). Adolescents’ exposure to sexually explicit Internet material, sexual uncertainty, and attitudes toward uncommitted sexual exploration; is there a link? *Communication Research*, 35, 579-601.
- Peter, J., & Valkenburg, P. M. (2008b). Adolescents’ exposure to sexually explicit Internet material and sexual preoccupation: A three-wave panel study. *Media Psychology*, 11, 207-234.
- Potter, W. J. (1993). Cultivation theory and research: A conceptual critique.

Communication Research, 19, 564-601.

Roggiero, E. Thmos. (2000). Uses and gratifications theory in the 21st century.

Mass Communication & Society, 3, 3-37.

Rubin, A. M., (2002). The uses-and-gratifications perspective of media effects. In Bryant, Jennings & Zillmann, Dole (Eds.), *Media Effects: Advances in Theory and Research* (pp. 525-548). New Jersey: Lawrence Erlbaum Associates.

Shah, Dhaven, McLeod, Jack, M., & Yoon, So-Hyang (2001). Communication, context, and community: And exploration of print, broadcast, and Internet influences.

Communication Research, 28, 464-506.

Shim, J. W., Lee, S., & Paul, B. (2007). Who responds to unsolicited sexually explicit materials on the Internet? The role of individual differences. *Cyber Psychology & Behavior, 10, 71-79.*

Signorielli, N., Gerbner, G., & Morgan, M. (1995). Violence on television: The cultural indicator project. *Journal of Broadcasting & Electronic Media, 39, 278-283.*

Snell, W. E., Fisher, T. D., & Schuh, T. (1992). Reliability and validity of the sexuality scale: A measure of sexual-esteem, sexual-depression, and sexual-preoccupation. *Journal of Sex Research, 29, 261-273.*

Steele, J. R., & Brown, J. D. (1995). Adolescent room culture: Studying media in the context of everyday life. *Journal of Youth and Adolescence, 24, 551-576.*

The ministry of internal affairs and communications (MIC) Japan. (2007, October, 12).

Outline of 2007 information and communications in Japan white paper. pp.1-12.

The ministry of internal affairs and communications (MIC) Japan. (2008, July). *2008 white paper; Information and communication in Japan, "Realization of Dynamic*

Ubiquitous Network Society". pp.1-23.

Traeen, Bente, Nilsen, S. Toril & Stigum, Hein. (2006). Use of pornography in traditional media and on the Internet in Norway. *The Journal of Sex Research*, 43, 245-254.

Ward, M. L. (2002). Does television exposure affect emerging adults' attitudes and assumptions about sexual relationships? correlational and experimental confirmation. *Journal of Youth and Adolescence*, 31, 1-15.

Ward, M. L. (2003). Understanding the role of entertainment media in the sexual socialization of American youth: A review of empirical research. *Developmental Review*, 23, 347-388.

Weaver, J. B. (1994). Pornography and sexual callousness: The perceptual and behavioral consequences of exposure to pornography. In D. Zillman, J. Bryant, & A. Hustin (Eds.), *Media, children, and the family* (pp.215-248). Hillsdale, NH:LEA.

Ybarra, M. L., & Mitchell, K. J. (2005). Exposure to internet pornography among children and adolescents: A national survey. *Cyber Psychology & Behavior*, 8, 473-486.

Zillmann, D., & Bryant, J. (1988). Effects of Prolonged Consumption of Pornography on Family Values. *Journal of Family Issues*, 9, 518-544.

Appendix A

Survey Questionnaire: English Version

Subject# _____

Thank you for filling this questionnaire. If you have questions, please contact the person in charge.

Section1

[Instruction: Please choose the option that best fits you by checking applicable boxes and /or filling in the blanks.]

Gender

1. Female
 2 Male

Age

_____ years old

Student Status

- 1 Freshman
 2 Sophomore
 3 Junior
 4 Senior
 5 Other _____

Major Field of Study

Nationality

1. Japanese
 2 Other _____

Are you currently in a romantic relationship?

- 1 Yes
 2 No
 3 Other _____

[Instruction: Please indicate the extent to which you agree or disagree with each of the following statements by circling a corresponding number.]

My parents know when I am surfing the Internet.

Disagree					Agree
1	2	3	4	5	

[Instructions: Please indicate the extent to which you agree or disagree with each of the following statements by circling a corresponding number (1=Disagree entirely, and 5=Agree entirely.)

	Disagree entirely			Agree entirely	
I often think about sex.	1	2	3	4	5
I am interested in sex.	1	2	3	4	5
I have to struggle to control my sexual thoughts and behavior.	1	2	3	4	5

	Disagree entirely			Agree entirely	
In most ways my life is close to my ideal.	1	2	3	4	5
The conditions of my life are excellent.	1	2	3	4	5
I am satisfied with my life.	1	2	3	4	5
So far I have gotten the important things I want in life.	1	2	3	4	5
If I could live my life over, I would change almost nothing.	1	2	3	4	5

[Instructions: Please indicate the extent to which you agree or disagree with each of the following statements by circling a corresponding number (1=Never, 3=Occasionally, and 5=Often.)

	Never		Occasionally		Often
How often you had experience in holding hands with several romantic partners?	1	2	3	4	5
How often you had kissing with romantic partners?	1	2	3	4	5
How often you had experience love touching with romantic partners?	1	2	3	4	5
How often you had experience of sexual Intercourse with romantic partners?	1	2	3	4	5

[Instructions: Please indicate the frequency the extent to which you exposed to the media with each of the following statements by circling a corresponding number.]

	Never	Less than once a month	1 to 3 times a month	Once A week	Several times a week	Every day
I saw still pictures of exposed genitals on the Internet last 6 months.	1	2	3	4	5	6
I saw still pictures of exposed genitals in magazines last 6 months.	1	2	3	4	5	6
I saw still pictures of exposed genitals in comic books last 6 months.	1	2	3	4	5	6
I saw sill pictures of people having sex on the Internet last 6 months.	1	2	3	4	5	6
I saw still pictures of people having sex in magazines last 6 months.	1	2	3	4	5	6
I saw still pictures of people having sex in comic books last 6 months.	1	2	3	4	5	6
I saw movies showing exposed genitals on the Internet last 6 months.	1	2	3	4	5	6
I saw movies showing exposed genitals at movie theaters last 6 months.	1	2	3	4	5	6
I saw movies showing exposed genitals on Video/TV /DVD last 6 months.	1	2	3	4	5	6
I saw movies of people having sex on the Internet last 6 months.	1	2	3	4	5	6
I saw movies of people having sex at movie theaters last 6 months.	1	2	3	4	5	6
I saw movies of people having sex on Video/TV /DVD last 6 months.	1	2	3	4	5	6
I saw animation of people having sex in last 6 months.	1	2	3	4	5	6

	Never	Less than once a month	1 to 3 times a month	Once A week	Several times a week	Every day
I purchased sexual explicit comic books on the Internet last 6 months.	1	2	3	4	5	6
I purchased sexual explicit magazines on the Internet last 6 months.	1	2	3	4	5	6
I purchased sexual explicit animation on the Internet last 6 months.	1	2	3	4	5	6
I purchased sexual explicit Video/DVD on the Internet last 6 months.	1	2	3	4	5	6
I saw erotic comics in comic books last 6 months.	1	2	3	4	5	6
I saw erotic comics in magazines last 6 months.	1	2	3	4	5	6
I saw erotic animation at the movie theater last 6 months.	1	2	3	4	5	6
I saw erotic animation on the Internet last 6 months.	1	2	3	4	5	6
I saw erotic animation on Video/TV /DVD last 6 months.	1	2	3	4	5	6
I participated to sexual conversation on the Internet last 6 months.	1	2	3	4	5	6

Section2

[Instructions: Please indicate the extent to which you agree or disagree with each of the following statements by circling a corresponding number (1=Strongly disagree, 3=Neutral, and 5=Strongly Agree).]

	Strongly Disagree				Strongly Agree
It is allowable for married men to have extramarital sex.	1	2	3	4	5
It is allowable for married women to have extramarital sex.	1	2	3	4	5
It is allowable for married men/women to have more than one sex partners.	1	2	3	4	5

[Instructions: Please indicate the extent to which you agree or disagree with each of the following statements by circling a corresponding number (1=Disagree completely, 3=Neutral, and 5=Agree completely).]

	Disagree completely				Agree completely
Unconsciously, girls always want to be persuaded to have sex.	1	2	3	4	5
Sexually active girls are more attractive partners.	1	2	3	4	5
An attractive woman should expect sexual advances.	1	2	3	4	5

Appendix B

Survey Questionnaire: Japanese Version

Subject# _____

アンケートにご協力いただき、ありがとうございます。もし、わからない事がありましたらアンケートの監督者、または責任者に質問してください。

Section1

[下記の質問で一番適していると思われる回答にチェック(✓)を入れるか、空白を埋めてください。]

性別

 1 女性 2 男性

年齢

_____才

学年

 1 一年生 2 二年生 3 三年生 4 四年生 5 その他

学部・学科

国籍

 1 日本人 2 その他 _____

現在お付き合いしている人がいますか？

 1 いる 2 いない 3 その他 _____

[次の文章の内容が、どの程度自分にあてはまるか、適切な番号にまるをしてください。1＝全く何も知らない、3＝ある程度知っている、5＝全て知っている]

あなたの両親はあなたがインターネットでどのようなサイトを見ているかをどの程度把握していますか？

全く何も知らない		ある程度知っている		全て知っている
1	2	3	4	5

[次の文章の内容がどの程度自分にあてはまるか、適切な番号にまるをしてください。
1=全くそうは思わない、3=どちらともいえない、5=とてもそう思う]

	全くそう は思わな い		どちらと もいえな い		とてもそ う思う
私はよくセックスの事を考える	1	2	3	4	5
私はセックスに興味がある	1	2	3	4	5
私は自分の性行動や性全般に関しての妄想をコントロールするのに苦慮している	1	2	3	4	5
私の人生は色々な点で自分の理想に近い	1	2	3	4	5
私の今の状況は自分の人生の中で最もすばらしい	1	2	3	4	5
私は自分の人生に満足している	1	2	3	4	5
これまで私は自分が人生で必要とするものを得てきた	1	2	3	4	5
もしもう一度自分の人生をやり直せるとしても、私はほとんど何も変えないだろう	1	2	3	4	5

[次の質問に、適切と思われる番号を選択して答えてください。1=全くない、3=少しある、5=非常にたくさんある]

	全くない		少しある		非常に たくさ んある
過去も現在も含めてあなたは恋人と手をつないだ経験がどのくらいありますか？	1	2	3	4	5
過去も現在も含めてあなたは恋人とキスをした経験がどのくらいありますか？	1	2	3	4	5
過去も現在も含めてあなたは恋人と愛撫した経験がどのくらいありますか？	1	2	3	4	5
過去も現在も含めてあなたは恋人とセックスをした経験がどのくらいありますか？	1	2	3	4	5

[下記の文章について、最も近い頻度の数字にまるをしてください。ポルノとは、18歳未満は視聴を法律的に禁止されているものを指します。官能的(雑誌、漫画、アニメ)とは、18歳未満でも法律的に視聴が許されているものを指します。]

	一度も ない	一ヶ月に 一度未 満	一ヶ月 に1回 から3 回	一週間 に一度	一週間 に数回	毎日
過去6ヶ月にインターネットで性器が露出された写真を見た	1	2	3	4	5	6
過去6ヶ月に雑誌で性器が露出された写真を見た	1	2	3	4	5	6
過去6ヶ月にまんがで性器が露出された写真を見た	1	2	3	4	5	6
過去6ヶ月にインターネットで人がセックスをしている写真を見た	1	2	3	4	5	6
過去6ヶ月に雑誌で人がセックスをしている写真を見た	1	2	3	4	5	6
過去6ヶ月にまんがで人がセックスをしている描写を見た	1	2	3	4	5	6
過去6ヶ月にインターネットで性器が露出された動画を見た	1	2	3	4	5	6
過去6ヶ月に映画館で性器が露出された動画を見た	1	2	3	4	5	6
過去6ヶ月にTV/DVD/ビデオで性器が露出された動画を見た	1	2	3	4	5	6
過去6ヶ月にインターネットで人がセックスをしている動画を見た	1	2	3	4	5	6
過去6ヶ月に映画館で人がセックスをしている動画を見た	1	2	3	4	5	6
過去6ヶ月にTV/DVD/ビデオで人がセックスをしている動画を見た	1	2	3	4	5	6
過去6ヶ月に人がセックスをしているアニメを見た	1	2	3	4	5	6
過去6ヶ月にポルノ漫画をインターネットで買った	1	2	3	4	5	6
過去6ヶ月にポルノ雑誌をインターネットで買った	1	2	3	4	5	6
過去6ヶ月にポルノ・アニメをインターネットで買った	1	2	3	4	5	6
過去6ヶ月にポルノDVD/ビデオをインターネットで買った	1	2	3	4	5	6
過去6ヶ月に官能的な漫画を見た	1	2	3	4	5	6
過去6ヶ月に官能的な雑誌を見た	1	2	3	4	5	6

	一度も ない	一ヶ月に 一度未 満	一ヶ月 に1回 から3 回	一週間 に一度	一週間 に数回	毎日
過去6ヶ月に官能的なアニメを映画館で見た	1	2	3	4	5	6
過去6ヶ月に官能的なアニメをインターネットで見た	1	2	3	4	5	6
過去6ヶ月に官能的なアニメをビデオ/TV/DVDで見た	1	2	3	4	5	6
過去6ヶ月にインターネットで性的な会話をした	1	2	3	4	5	6

Section2

[下記の文章を読んで、どの程度自分の意見にあてはまるか、適切な番号にまるをしてください。

1=全くそうは思わない、3=どちらともいえない、5=とてもそう思う]

	全くそうは 思わない		どちらとも 言えない		とてもそう 思う
結婚している男性が妻以外の人とセックスをしても構わない	1	2	3	4	5
結婚している女性が夫以外の人とセックスをしても構わない	1	2	3	4	5
既婚者に一人以上のセックス・パートナーがいても構わない	1	2	3	4	5

[下記の文章を読んでどの程度自分の意見にあてはまるか、適切な番号にまるをしてください。1

=全くそうは思わない、3=どちらともいえない、5=とてもそう思う]

	全くそうは 思わない		どちらとも いえない		とてもそう 思う
無意識に女の子達はセックスを求められるのを望んでいる	1	2	3	4	5
セックスを積極的にする女の子はより魅力的な相手である	1	2	3	4	5
魅力的な女性は性行動にも積極的であるべきである	1	2	3	4	5