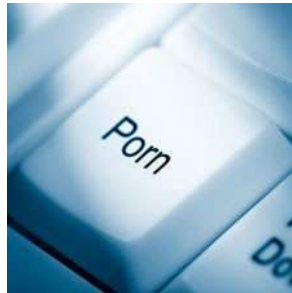


Master Thesis

Master of Psychology in the Field of Safety and Health

Antecedents and consequences of Internet Pornography Consumption among young adults in Germany



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Abstract

Objective: Internet Pornography Consumption (IPC) is a current and important issue within the health-related context, displaying considerable advantageous or disadvantageous individual, interpersonal and accordingly societal consequences, dependent on IPC quantity. The present research aims to identify both positive and negative influential concepts by investigating antecedents and consequences of IPC among young adults in Germany.

Method: This research is designed as cross-sectional study with one measurement moment. A survey is conducted in Germany by means of online questionnaires. In total 231 young adults participated (18-35 years). Four user-groups based on IPC quantity are classified, indicating non-use, low use, moderate use and high use of Internet Pornography.

Results: The concepts presumed to be antecedents (gender, sexual sensation seeking, attitude toward pornography, compulsive IPC and cognitive and affective motives of IPC) are significantly correlated with average weekly Internet Pornography Consumption. Important associated behavioral and cognitive concepts presumed to be consequences of IPC are the average weekly masturbation occasions, sexual permissiveness, overall positive outcome expectancies and previous unhealthy sexual behavior. Against expectation, interpersonal sexual behavior, relationship and sexual satisfaction and overall negative outcome expectancies are not connected to IPC.

Conclusion: A multivariate relational analysis identifies that concerning antecedents the attitude toward pornography and being male yield most explanatory value; concerning consequences, the masturbation behavior and sexual permissiveness represent the strongest determinants regarding IPC. Moreover, focusing on individual differences according to user-group classification, several of the behavioral, cognitive and affective concepts serve as profiling aids, illustrating a picture of a 'typical' Internet Pornography consumer (dependent on IPC quantity). Implications for further research are discussed.

Samenvatting

Doel: Internet Pornografie Consumptie (IPC) is een actueel en belangrijk onderwerp binnen de gezondheidsgerelateerde context. Afhankelijk van IPC kwantiteit worden aanzienlijke voordelige of nadelige consequenties vertoond op individueel, interpersoneel en derhalve maatschappelijk niveau. Het huidige onderzoek probeert zowel positieve als negatieve invloedrijke concepten te identificeren, door antecedenten en consequenties van IPC bij jonge volwassenen in Duitsland te onderzoeken. **Methode:** Dit onderzoek is opgezet als een cross-sectionele studie met één meetmoment. Een survey is doorgevoerd in Duitsland door middel van een online vragenlijst. In totaal 231 jonge volwassenen hebben deelgenomen (18-35 jaren). Er zijn vier gebruiker-groepen ingedeeld op basis van IPC kwantiteit, deze kenmerken niet-gebruik, laag gebruik, moderaat gebruik en hoog gebruik van Internet Pornografie. **Resultaten:** De concepten, die vermoedelijk antecedenten van IPC zijn (geslacht, sexual sensation seeking, attitude ten opzichte van pornografie en cognitieve en affectieve motieven van IPC) zijn significant gecorreleerd met de gemiddelde wekelijkse IPC. Er zijn belangrijke gedragsmatige en cognitieve concepten gevonden die vermoedelijk consequenties van IPC zijn. Enige zijn significant geassocieerd met IPC, met name gemiddelde wekelijkse gevallen van masturbatie, seksuele vrijzinnigheid, algemene positieve uitkomstverwachting en voorafgaand ongezond seksueel gedrag. Tegen de verwachting, interpersoonlijk seksueel gedrag, relatie- en seksuele satisfactie en de algemene negatieve uitkomstverwachting zijn niet gerelateerd aan IPC. **Conclusie:** Multivariate analyses hebben met betrekking tot de antecedenten geïdentificeerd dat de attitude ten opzichte van pornografie en mannelijk zijn de hoogste verklaarende waarde toevoegt. Betreffende de consequenties representeren het masturbatie gedrag en de seksuele vrijzinnigheid de sterkste determinanten ten opzichte van IPC. Daarboven wordt de aandacht op individuele verschillen gevestigd op grond van gebruiker-groepen. Enkele van de gedragsmatige, cognitieve en affectieve concepten doen dienst als profilering-hulp, dus om een beeld van een 'typische' Internet Pornografie consument te schetsen (afhankelijk van IPC kwantiteit). Theoretische implicaties worden bediscussieerd.

1. Introduction

1.1 Internet Pornography Consumption

In recent years the Internet has grown to a great source of entertainment and information on a wide variety of sexual topics. Particularly, it has become the most popular and convenient access to media-related sexual activities (Cooper, McLoughlin, & Campbell, 2000; Fisher & Barak, 2001; Goodson, McCormick, & Evans, 2000; Grubbs, Sessoms, Wheeler, & Volk, 2010; Peter & Valkenburg, 2006a, 2011; Wolak, Mitchell, & Finkelhor, 2007). Döring (2009) evaluated the current state of research concerning Internet sexuality. The term Internet sexuality refers to sexual-related content and activities observable on the Internet (Adams, Oye, & Parker, 2003; Cooper et al., 2000; Leiblum & Döring, 2002). Internet sexuality designates a variety of sexual phenomena related to a wide spectrum of online services and applications and is classified into six areas: Internet pornography, sex education, sex shops, sex work, sex contacts and sexual subcultures. These areas have traditionally been studied as separate areas of research (Döring, 2009). This research focuses on the area of Internet Pornography, specifically on antecedents and consequences of Internet Pornography Consumption.

The Internet Pornography business has expanded to an extensive industry with more than four million Web sites containing pornographic material. Furthermore, a fourth of all daily search engine requests contain sexually explicit terms and 35% of all Internet downloads have pornographic content (Ropelato, 2009). These statistics illustrate that online content with a sexual character is widespread and in demand. According to Cooper (1998), the technological progress has made the Internet a powerful medium with regard to sexuality. He identified three advances which are usually referred to as the triple-A engine: accessibility (millions of sites with sexually explicit content are available 24 hours a day, 7 days a week), affordability (get free pornography) and anonymity (people perceive their accessing of pornography to be anonymous). There are no statistics available concerning Internet Pornography Consumption specifically in Germany, but the following facts lead to the assumption that the above mentioned data are conferrable. According to the CIA World Factbook (2012) Germany ranks on place five in worldwide comparison regarding the number of hosts, which is the indicator of the extent of Internet connectivity. Moreover statistics reveal that at least 98.2% of Germans in the age category of 14 to 30 years old are regularly connected to the Internet (Statistisches Bundesamt, 2011). It is thus anticipated that the technological reality of the Internet also has influenced the Internet Pornography

Consumption in Germany.

To date, there is no clear terminology of Internet Pornography and accordingly no clear definition what the term Internet Pornography implies for people. A recent review (Short, Black, Smith, Wetterneck, & Wells, 2012) detected that the forty-four analyzed studies labeled this class of media using several different terms such as pornographic material, online pornography, sexually explicit Internet material (SEIM; Peter & Valkenburg, 2008, 2011), sexually explicit material (SEM; Goodson, McCormick, & Evans, 2001; Morgan, 2011), erotica (Zillmann, 2000) and online sexual activity (OSA; Cooper, Morahan-Martin, Mathy, & Maheu, 2002; Cooper, Mansson, Daneback, Tikkanen, & Ross, 2003). Furthermore Short et al. (2012) found out that 84 percent did not define Internet Pornography regarding form, particularly content and presentation; the residual 16 percent provided descriptions which considerably varied in wording and level of detail. To avoid indistinctness, in the current research the term Internet Pornography describes professional or user-generated audio- and visual content on or from the Internet (thus streamed or downloaded) that typically intend to arouse the viewer. This sexually explicit material depicts sexual activities and (aroused) genitals in unconcealed ways, often with close-ups of oral, anal, and vaginal penetration (both videos and pictures).

In some studies effort is done to analyze detailed the content of sexually explicit material, though no study is available exclusively focusing on Internet Pornography. Generally, content analyses have shown that sexually explicit material portrays sex primarily as physical and unaffectionate scenes between casual connected individuals (Brosius, Weaver, & Staab, 1993; Jensen & Dines, 1998). The presented intercourse is characterized by its permissiveness (Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010; Grudzen, Elliott, Kerndt, Schuster, Brook, & Gelberg, 2009). Moreover heterosexual pornography often portrays women's sexual ecstasy and men's dominance (Kanuga & Rosenfeld, 2004; Sheer & Cline, 1994; Zillman, 2000) thereby illustrating a more physical, pleasure-oriented approach to sexuality (Bowleg, Lucas, & Tschann, 2004; Peter & Valkenburg, 2008).

Moreover, the ascertainment of accurate prevalence rates of Internet Pornography Consumption is difficult due to striking differences detected in definition of sexually explicit material and varied methodology and measurement, especially concerning quantity (and regarding mode, form and function). Above all demographic disparities (for example age and gender) in the investigated studies make it hardly possible to identify valid levels of Internet Pornography Consumption. Therefore it should be noted that the following prevalence rates, in terms of consuming Internet Pornography averaged on a weekly basis, should be taken with

caution. Unique studies are explained individually to demonstrate examples.

International research conducted to date suggests weekly Internet Pornography Consumption rates in the general (nondeviant) population in the range of 12–48% among men and 3–37% among women; thus variation is evident. There is consistent evidence from diverse cultures that adults regularly are exposed (Australia: McKee, 2007; Canada: Boies, 2002; United States: Carroll, Padilla-Walker, Nelson, Olson, Barry, & Madsen, 2008; Paul & Shim, 2008; Sweden: Cooper et al., 2003; Svedin, Akerman, & Priebe, 2011; Denmark: Hald & Malamuth, 2008; China: Lam & Chan, 2007; Taiwan: Lo, Wei, & Wu, 2010; Switzerland: Luder, Pittet, Berchtold, Akre, Michaud, & Suris, 2011; the Netherlands: Peter & Valkenburg, 2011; Meeker, Van den Eijnden, & Garretsen, 2006; Norway: Træen, Spitznogle, & Beverfjord, 2004; Træen, Sørheim-Nilsen, & Stigum, 2006; for a review see Short et al., 2012). Focusing on European consumption levels, a recent Swiss research detected in a young sample (16-20 years) that males are clearly more often exposed to Internet Pornography than females (74% respectively 36%), while 37% of both genders are exposed several times a week (Luder et al., 2011). According to Hald and Malamuth (2008), there are rates of 98% among men and 78% among women who ever used Internet Pornography in Denmark with an average time of 81 minutes for males and 22 minutes for females per week in the last six month (18-30 years). Regarding other developed countries, Boies (2002) examined Internet Pornography Consumption among 760 university students (average age 20 years) in Canada and found that 72% of men and 24% of women reported using the Internet to view pornography, with 12% of users viewing sexually explicit material once a week or more. Similar levels are found in an U.S. American research with 813 respondents in the same age, where 87% of young men and 31% of young women use Internet Pornography. Regarding frequency of consumption, 48% of male users and 3% of female users consume Internet Pornography once a week or more (Carroll et al., 2008).

In consideration of the widespread occurrence and regular consumption of Internet Pornography, research concerning antecedents and consequences related to Internet Pornography Consumption has grown steadily in the last years. It is evident that Internet Pornography Consumption is associated with a variety of concepts being influenced by and exerting influence on affective, cognitive and behavioral conditions of the respondent. Internet Pornography Consumption has therefore positive or negative impact on individual's health and health behavior, on an individual as well as on an interpersonal level. Consequently, Internet Pornography Consumption could also exert advantageous or disadvantageous impact on society. However, research to date has revealed contradictory

findings (Döring, 2009; Short et al., 2012).

Regarding consequences, studies have found multiple positive effects of Internet Pornography Consumption, including the relief of stress, decrease of boredom, feeling of support, increase of sexual knowledge and reduction of sexual anxiety (Cooper, Galbreth, & Becker, 2004; Cooper et al., 2002; Hald & Malamuth, 2008; Morrison, Harriman, Morrison, Bearden, & Ellis, 2004; Paul & Shim, 2008). Possible negative implications of Internet Pornography Consumption include emotional problems (Philaretou, Malhfouz, & Allen, 2005; Stulhofer, Busko, & Landripet, 2010) and the appearance of compulsive or addictive usage patterns (Griffiths, 2001; Meerkerk et al., 2006; Young, 2008). Moreover several researchers have suggested that Internet Pornography Consumption leads to impairments in interpersonal functioning, in terms of decreased sexual satisfaction (Goodson et al., 2001; Stack, Wasserman, & Kern, 2004), relationship and intimacy difficulties (Groß, Gillespie, Royce, & Lever, 2011; Morahan-Martin & Schumacher, 2000; Morgan, 2011), sexual permissiveness (Lam & Chan, 2007; Lo & Wei, 2005; Peter & Valkenburg, 2008) and unhealthy sexual behavior (Carroll et al., 2008; Haggstrom- Nordin, Hanson, & Tydén, 2005; Morrison et al., 2004; Peter & Valkenburg, 2008).

Pertaining to antecedent conditions impacting Internet Pornography Consumption, above all, numerous studies have undermined the importance of gender, given that men generally consume more Internet Pornography than women (Morgan, 2011; Peter & Valkenburg, 2008). Accordingly, findings concerning male-female differences are a recurrent theme investigating antecedents and consequences of Internet Pornography Consumption. In addition, researches have revealed that the personality characteristic sensation seeking and in particular the characteristic sexual sensation seeking (propensity to seek out novel and risky sexual stimulation) is associated with Internet Pornography Consumption. To be specific, a pronounced tendency to sensation seeking is related to a higher quantity of Internet Pornography Consumption (Brown & L'Engle, 2009). Equally, a more favorable attitude toward pornography is expressed in a higher quantity of Internet Pornography Consumption (Lam & Chan, 2007; Peter & Valkenburg, 2011). Moreover, individuals are capable of developing excessive or rather compulsive patterns of Internet Pornography Consumption, resulting in a continuous intensification of their Internet Pornography Consumption (Delmonico & Miller, 2003; Griffiths, 2001). Furthermore a limited number of investigations have discovered multiple motives for using Internet Pornography, affecting and being affected by individual's behavioral, cognitive and affective conditions. The development and perpetuation of these motives for Internet Pornography Consumption is presumably

dependent on and reinforced by consumption quantity (Paul & Shim, 2008).

Only a few longitudinal studies have determined cause and effect relationships (Brown & L'Engle, 2009; Meerkerk et al., 2006; Peter & Valkenburg, 2008, 2009, 2010, 2011). The most recent study of Peter and Valkenburg (2011) is a two-wave panel survey among a nationally representative random sample of 1,445 Dutch adolescents and 833 Dutch adults. The authors found that sexually explicit Internet material increases sexual risk behavior (operationalized as having sex with somebody not known in the past six months without using a condom) among adults, but not among adolescents. Controlling for moderating influences of gender, it became clear that only among male adults, but not among female adults sexual risk behavior increased. Another Dutch study, using a two-wave longitudinal design with a one-year interval, detected that spending a lot of time on the Internet application 'erotica' predicts an increase in compulsive Internet use one year later (Meerkerk et al., 2006). By means of longitudinal analyses, Brown and L'Engle (2009) found that among young American adolescents (13.6 years at baseline, 15.6 years at second wave) early exposure to Internet Pornography predicted less progressive gender role attitudes for both genders. For males only, early exposure to Internet Pornography predicted less constrained sexual norms regarding permissiveness. At baseline, having high need for sensation was related to greater exposure for both males and females.

Summarized, longitudinal studies have evidenced that Internet Pornography Consumption is impacted by several conditions which will be termed antecedents in this master thesis. Besides it is verified that Internet Pornography Consumption certainly exert an effect on individual's health, therefore the concepts presumably influenced by Internet Pornography Consumption are termed consequences. Concluding, the current research aims to investigate both positive and negative influential factors with respect to Internet Pornography Consumption among young adults in Germany. On the one hand, this study is relevant due to inconsistent results in the researches investigating antecedents and consequences of Internet Pornography Consumption, particularly regarding the relevance admitted to positive respectively negative effects. On the other hand, this study is necessary as especially in Germany only a limited number of scientific contributions regarding this issue have been released, mostly outlining developmental risks connected with Internet Pornography Consumption among children and adolescents (Hill, 2011; Hajok, 2011). Accordingly, by means of an extensive literature review it is clarified to what extent Internet Pornography Consumption is associated with a variety of positive and negative concepts, in consideration of individual's health and social behavior. Besides the variables that are important to illustrate

a comprehensive picture of 'typical' Internet Pornography consumers are pointed out, distinguished on the basis of consumption quantity as measured by time and frequency.

1.2 Antecedents of Internet Pornography Consumption

As mentioned above, the development and continuation of Internet Pornography consumption is presumably affected by demographic conditions (especially gender), personality dispositions, a general attitude and existing psychological disorders. Moreover behavioral, cognitive and affective motives of the individual influence Internet Pornography Consumption.

First of all, gender is identified as crucial factor regarding the investigation of Internet Pornography Consumption. Large gender differences in prevalence rates of Internet Pornography Consumption, regarding consumption patterns and generally regarding related factors have been found in several researches. It is evident that men consume more sexually explicit material than women, both measured by time and frequency (Carroll et al., 2008; Cooper et al., 2002; Goodson et al., 2001; Hald, 2006; Lo & Wei, 2005; Morgan, 2011; Peter & Valkenburg, 2006; Svedin et al., 2011; Træen et al., 2006; Wolak et al., 2007). Focusing in detail on male-female differences, previous studies have observed that men generally have a greater preference than women to watch sexually explicit material, accompanied by more favorable attitudes toward pornography (Janssen, Carpenter, & Graham, 2003; Lo & Wei, 2002). Furthermore, males indicate more positive feelings about this material (Brown & L'Engle, 2009; Carroll et al., 2008; Haggstrom-Nordin et al., 2005; Paul & Shim, 2008; Tydén & Rogala, 2004; Wallmyr & Welin, 2006).

Moreover the personality disposition sensation seeking has been identified as an antecedent of Internet Pornography Consumption. High sensation seekers are more likely to have higher consumption rates (Brown & L'Engle, 2009; Luder et al., 2011; Peter & Valkenburg, 2011). Sensation seeking is believed to have a biological basis that expresses a need for physiological arousal, novel experience, and a willingness to take social and physical risks to obtain such arousal (Arnett, 1994; Zuckerman, 1994). Concerning the influence on Internet Pornography Consumption, recent studies suggested that subjective sexual arousal from Internet Pornography is higher among high sensation seekers than among low sensation seekers (Peter & Valkenburg, 2008, 2011). Additionally, Gaither and Sellbom (2003) found out that high rates of sexual sensation seeking, describing especially the propensity to seek out novel or risky sexual stimulation, has been consistently related to behavioral correlates of sexual permissiveness. Although general sensation seeking is associated with a variety of

behaviors (e.g. sexual behavior: Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002), the link between sexual sensation seeking and Internet Pornography Consumption is to date not investigated. Regarding gender disparities, males generally tend to exhibit higher levels of sensation seeking than females (Zuckerman, 1994).

The attitude toward pornography is taken into account, since according to Svedin et al. (2011) frequent users of Internet Pornography reported to generally have a more positive or liberal attitude concerning pornography. Again a plenty of examined researches have indicated that the attitude toward pornography differs according to gender; males usually display a more favorable attitude toward pornography (Brown & L'Engle, 2009; Flood, 2007; Hendrick, Hendrick, & Reich, 2006; Lam & Chan, 2007; Lewin, 1997; Peter & Valkenburg, 2006, 2011; Træen et al., 2004).

Furthermore the appearance of compulsive Internet Pornography Consumption in terms of excessive and addictive tendencies as an undesired accessory phenomenon of earlier Internet Pornography Consumption has to be mentioned. Several researches have indicated that individuals are capable of becoming extremely compulsive in their usage of Internet Pornography (Delmonico & Miller, 2003; Schneider, 2000); a longitudinal study in the Netherlands even stated that using the Internet for sexual gratification should be regarded as the most important risk factor for the development of compulsive Internet use (Meerkerk et al., 2006). According to Griffiths (1996), any behavior that fulfils six core components (salience, mood modification, tolerance, withdrawal, conflict and relapse) can operationally be defined as addiction. Individuals disclosing these characteristics consequently engage in continuously intensifying excessive Internet Pornography Consumption. As a lack of clarity concerning general prevalence rates is apparent, idem applies to rates of addictive consumers of Internet Pornography (Griffiths, 2000; Young, 1998). Due to uncertainties in definition and measurement, in this master thesis compulsive Internet Pornography Consumption is characterized as behavioral addiction and conceptualized as an aspect of sexual addiction and sexual compulsivity (Cooper, Scherer, Boies, & Gordan, 1999; Griffiths, 2001).

Additionally, an exploratory category of factors termed motives of Internet Pornography Consumption is introduced to get a complete picture of Internet Pornography Consumption in association with cognitive, behavioral and accessory affective conditions of the individual. General findings support the assumption that there are different functions that Internet Pornography fulfills, although these studies are limited (Fisher & Barak, 2001; Paul & Shim, 2008). This means the individuals' Internet Pornography Consumption is guided by beliefs of an expected function that is assumed to be realized through this consumption.

Evaluation of the experience results in distinct reactions to sexually explicit material, in turn affecting continuation of Internet Pornography Consumption. Several studies have pointed out that curiosity and sexual arousal are the most common motives for accessing sexually explicit material (Goodson et al., 2000; Lam & Chan, 2007) or that pornography is described as stimulating, arousing or exciting (Haggstrom-Nordin, Sandberg, Hanson, & Tydén, 2006). Boies (2002) also detected arousal as primary function (82%); followed by satisfaction of curiosity (65%) and education, thus learning new sexual techniques (63%). In contrast, Cooper et al. (2002) found that distraction is the most commonly reported reason for Internet Pornography Consumption. These findings imply that motives and functions for Internet Pornography Consumption individually vary, presumably dependent on consumption quantity. Moreover differences concerning gender are likely to occur, as males report in particular higher levels of sexual arousal from sexually explicit material than females (Cooper et al., 2002; Goodson et al., 2001; Janssen et al., 2003) and more positive emotions concerning Internet Pornography (Brown & L'Engle, 2009; Carroll et al., 2008; Haggstrom-Nordin et al., 2005).

Although most contemporary researches could not discover links of age, level of education, daily occupation or sexual orientation and Internet Pornography Consumption, additionally the assessment of these demographic variables takes place. The time span 18–25 years, named emerging adulthood, may be a time of particular interest because it is a period that is characterized by exploration in the areas of sexuality and identity, as well as increased participation in risk behaviors (Arnett, 2000). Due to these developmental characteristics and the fact that technological advances are quickly internalized in that age category, it is possible that younger individuals consume more frequent Internet Pornography. Moreover, in a Norwegian study the sexual orientation predicted higher Internet Pornography Consumption, reported by homosexual and bisexual individuals, but this finding is to date not replicated (Træen et al., 2006).

1.3 Consequences of Internet Pornography Consumption

As aforementioned, Internet Pornography Consumption presumably influences interpersonal and solely sexual behavior, the promotion of sexual health and consequently the occurrence of healthy or risky sexual behavior and both relationship and sexual satisfaction. Moreover the outcome expectancies regarding particular cognitions are impacted by earlier Internet Pornography Consumption.

The impact of Internet Pornography on individuals' sexual behavior has been

addressed in a number of studies (Haggstrom-Nordin et al., 2006; Hald & Malamuth, 2008; Svedin et al., 2011; Ybarra & Mitchell, 2005; Zillman, 2000). According to Peter and Valkenburg (2011) individuals generally perceive their sexual behavior being impacted by Internet Pornography, with males being more strongly affected as compared to females. Regarding both interpersonal and solely sexual activity, Haavio-Mannila and Kontula (2003), found in a Finish sample that Internet Pornography Consumption is especially high for highly sexually active individuals, and that those with a higher Internet Pornography Consumption also have a higher frequency of masturbation. Accordingly, Boies (2002) detected that those males who react favorably to sexually explicit material generally masturbate more often; within his sample 82% of the men and 55% of the women masturbated while viewing Internet Pornography. Consequently, gender differences are detectable in the contexts within which individuals consume Internet Pornography, in other terms the mode of Internet Pornography Consumption. Research has indicated that men use Internet Pornography more often during sexual activity on their own (Hald, 2006). As men are more likely to experience sexual arousal using this material, consequently pornography serves for them clearly more often as masturbatory aid (Boies, 2002; Paul & Shim, 2008). In contrast, women have indicated a preference for relationally based pornography use, thus using it more frequently with an intimate partner (Goodson et al., 2001; Hald, 2006).

Furthermore, research has generally supported the notion that previous sexual behavior is related to Internet Pornography Consumption (Boies, 2002; Braun-Courville & Rojas, 2009; Cooper, Delmonico, & Burg, 2000). In this respect, the subsequently explained individual constructs indicate advantageous or disadvantageous correlates of Internet Pornography Consumption, dependent on valence. Concerning the initiation of sexual behavior, Morgan (2011) summarized that a higher quantity of Internet Pornography Consumption is uniquely associated with a lower age at first intercourse. Similarly, the limited longitudinal studies could also predict that Internet Pornography Consumption affects the initiation of sexual behavior; as adolescents regularly using Internet Pornography had earlier sexual intercourse than adolescents not using Internet Pornography (Brown & L'Engle, 2009; Peter & Valkenburg, 2008, 2009). Regarding first pornographic consumption, Hald and Malamuth (2008) detected that lower age at first exposure is associated with higher Internet Pornography Consumption. Moreover, the association between lifetime sexual partners and pornography consumption is repeatedly investigated. According to Boies (2002), those individuals who reported greater exposure to Internet Pornography are more likely to be sexually experienced and have a higher number of sexual partners. This finding is replicated

in a large population-representative survey in Norway, as it is detected that a higher number of sexual partners is associated with the use of pornography in all media (Træen et al., 2006). Carroll et al. (2008) found in an US American sample that a greater acceptance and consequently a more frequent Internet Pornography Consumption are linked to a greater acceptance of casual sexual behavior. The term casual sex describes sexual contact with known or not known persons, with whom no monogamous or committed relationship exists and one or more sexual encounters take place. Summarized, a higher frequency of Internet Pornography Consumption is associated with more sexual experience, resulting in ascertainment of both a higher number of overall and casual lifetime sexual partners (Carroll et al., 2008; Morgan, 2011; Morrison et al., 2004). Generally, as multiple studies have shown, many changing sexual partners and an inconsistent use of condoms are key components of unhealthy respectively risky sexual behavior (Aral, 2001; Eng & Butler, 1997; Rabinowitz, 2004). Referring to above mentioned content analyses, Bridges et al. (2010) discovered that condoms are used in only 11% of 304 analyzed scenes. Another content analysis of sexually explicit material found that actors used a condom in only 3% of scenes depicting penile-vaginal intercourse and in only 10% of scenes depicting penile-anal intercourse (Grudzen et al., 2009). The use of condoms does not seem to be compatible with the pleasure-oriented presentation of sexual intercourse in sexually explicit material. Luder et al. (2011) detected that both genders frequently consuming Internet Pornography protected themselves inconsistently, while males still had higher odds not using condoms last intercourse. The practice of transactional sex (defined as sex exchanged for money), describes another disadvantageous factor in association with Internet Pornography Consumption (Norris, Kitali, & Worby, 2009). According to Svedin et al. (2011) frequent male Internet Pornography users had more often sold sex than other males of the same age. Furthermore, ever being diagnosed with a sexually transmitted disease is an indicator of unhealthy sexual behavior (Kalichman & Simbayi, 2003).

Considering further consequences of Internet Pornography Consumption, several investigations identified sexual permissiveness as important factor. According to Zillmann (2000) pornography viewers consider promiscuity as more acceptable than people who have not seen such materials; and Braun-Courville and Rojas (2009) found out that regular Internet Pornography consumers keep more permissive attitudes. However, frequent Internet Pornography Consumption is not only associated with greater acceptance of sexual permissiveness in general, but consequently with the greater likelihood of engaging in sexually permissive behavior (Carroll et al., 2008; Lam & Chan, 2007; Lo & Wei, 2005).

Moreover, Carroll et al. (2008) pointed male-female differences out, presenting that emerging adult men reported higher levels of sexual permissiveness than did emerging adult women. This finding is mirrored in a longitudinal Dutch study; additionally emphasizing that higher sexual permissiveness results in higher engagement in casual sex for both gender (Peter & Valkenburg, 2008).

Moreover Internet Pornography is associated with relationship and sexual satisfaction (Peter & Valkenburg, 2008, 2009; Stulhofer et al., 2010; Wolak et al., 2007). In a qualitative research, Haggstrom-Nordin et al. (2006) figured out that individuals often have the impression that sexuality seemed to be separated from intimacy in pornography (supported by above mentioned content analyses). According to Morgan (2011) a higher frequency of Internet Pornography Consumption is associated with decreased relationship and sexual satisfaction. However, not only regarding negative effects, but also regarding positive effects studies evidenced general impact of Internet Pornography Consumption on relationship and sexual satisfaction. A sensible and responsible Internet Pornography Consumption seem to have beneficial impact on the improvement of sexual behavior and consequently relationship and sexual gratification (unfortunately no recommended quantity is specified; Cooper et al., 2002; Grov et al., 2011; Stuhlhofer et al., 2010).

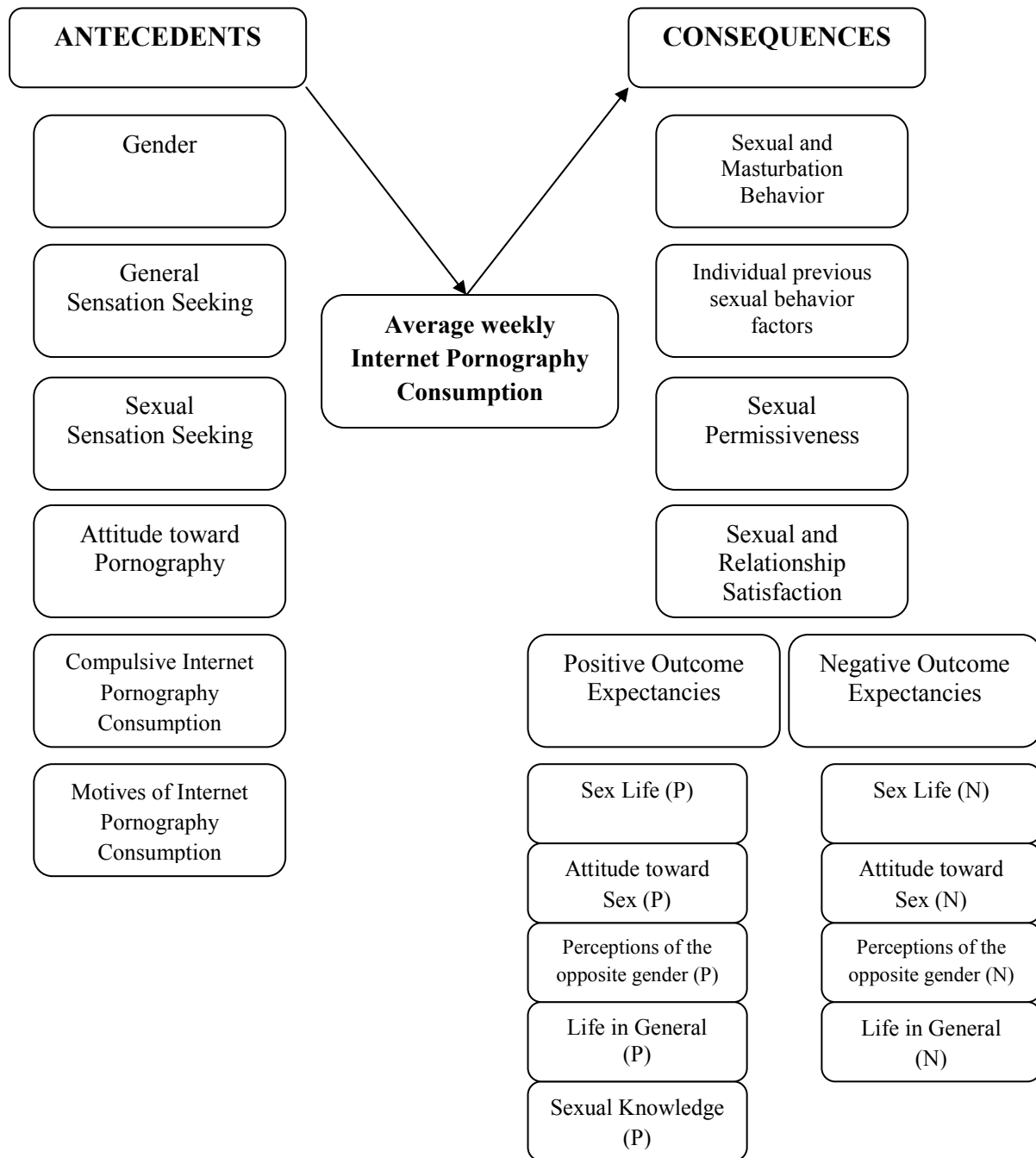
Although the effects of Internet Pornography exposure on consumers are a recent frequently researched topic, only few validated measurements exist until now. Hald and Malamuth (2008) were the first to design a comprehensive scale (pornography consumption effect scale) that measures outcome expectancies of Internet Pornography Consumption. This implies that individuals have a belief about the likelihood of the particular behavior Internet Pornography Consumption leading to a specific outcome, that is characterized by a positive or negative valence ascribed to it (Maddux, Sherer, & Rogers, 1982). In this master thesis the self-perceived and self-valued effects of individuals' Internet Pornography Consumption on particular social cognitions represent consequences of Internet Pornography Consumption. This is reasonable as the anticipation respectively the preference of specific outcomes is based on earlier experience with Internet Pornography. Explicitly, the concept positive outcome expectancies describes the anticipated likelihood of the Internet Pornography Consumption leading to positive effects, contrary, the term negative outcome expectancies means the perceived likelihood of the occurrence of negative effects. Corresponding, the pornography consumption effect scale has assessed overall positive outcome expectancies (OEP) and overall negative outcome expectancies (OEN) regarding five particular areas; by name sex life, attitudes toward sex, attitudes toward and perceptions of the opposite gender, life in

general and sexual knowledge. Subsequently the expectancies of Internet Pornography Consumption on these different cognitions are shortly reviewed, both concerning positive and negative outcomes.

Firstly, the outcome expectancy of Internet Pornography Consumption on sexual experimentation in individual's sex lives is evaluated. As mentioned earlier, individuals may attribute advantageous or disadvantageous events in their sex lives to Internet Pornography Consumption (Peter & Valkenburg, 2008; Rogala & Tydén, 2003). Secondly, the construct attitude toward sex includes the individuals' view and outlook on sex, for example an increase or just decrease in liberality due to Internet Pornography Consumption. Thirdly, the perception of and attitudes toward the opposite gender is examined, to determine if Internet Pornography Consumption influences to a lesser or greater extent stereotypical perception of the opposite gender. Brown and L'Engle (2009) have detected that early exposure to Internet Pornography predicted less progressive gender role attitudes; and a large Australian survey has found that male high users have lower attitudes toward women (McKee, 2007). Fourthly, Internet Pornography can have impact on life satisfaction in general, as it either provides a valuable or a worthless contribution (Stulhofer et al., 2010; Wolak et al., 2007). Finally the outcome expectancy of Internet Pornography Consumption on sexual knowledge and sexual desire is assessed, while the enhancement of knowledge is considered to have only positive effects on sexual satisfaction (Hald & Malamuth, 2008).

In conclusion it can be stated that Internet Pornography Consumption is a complex and sensitive issue that demand careful and differentiated investigation of the concepts influencing it respectively the concepts that are influenced by it. The purpose of the present study is to identify the valence of these concepts termed antecedents and consequences in the German adult population, dependent on Internet Pornography Consumption quantity. Using Internet Pornography responsible and competently, it can be seen as opportunity with beneficial consequences. Anyway, an intensive, irresponsible use accompanied by neglecting other areas of life is identified as risk that can be harmful to oneself or others.

1.4 Schematic representation of concepts related to Internet Pornography Consumption



1.5 Research questions

On basis of the above discussed considerations, the current research aims to investigate behavioral, cognitive and affective characteristics of Internet Pornography consumers, to gain deeper insight into the constructs that underlie and maintain Internet Pornography Consumption and concepts positively or negatively impacting the German population in the chosen age category on an individual and interpersonal level. Five global research questions are formulated:

1. *What are the rates and patterns of Internet Pornography Consumption among young adults in Germany?*
2. *Is there a relation between particular demographic factors (age, education, daily occupation, sexual orientation and relationship status) and Internet Pornography Consumption?*
3. *Is there a relation between the factors presumed to be antecedents of Internet Pornography Consumption and average weekly Internet Pornography Consumption?*
 - 3.1 Is there a relation between gender and Internet Pornography Consumption?
 - 3.2 Is there a relation between the degree of general sensation seeking and Internet Pornography Consumption?
 - 3.3 Is there a relation between the degree of sexual sensation seeking and Internet Pornography Consumption?
 - 3.4 Is there a relation between the attitude toward pornography and Internet Pornography Consumption?
 - 3.5 Is there a relation between the degree of compulsive Internet Pornography Consumption and average weekly Internet Pornography Consumption?
 - 3.6 Is there a relation between the affective and cognitive motives for Internet Pornography Consumption and average weekly Internet Pornography Consumption?
4. *Is there a relation between the average weekly Internet Pornography Consumption and behavioral concepts presumed to be consequences of Internet Pornography Consumption?*
 - 4.1 Is there are relation between Internet Pornography Consumption and frequency of sexual contacts?
 - 4.2 Is there are relation between Internet Pornography Consumption and frequency of masturbation occasions?

- 4.3 Is there a relation between Internet Pornography Consumption and experiences regarding previous sexual behavior?
5. *Is there a relation between average weekly Internet Pornography Consumption and the cognitive concepts presumed to be consequences of Internet Pornography Consumption?*
 - 5.1 Is there are relation between Internet Pornography Consumption and sexual permissiveness?
 - 5.2 Is there are relation between Internet Pornography Consumption and sexual satisfaction?
 - 5.3 Is there a relation between Internet Pornography Consumption and relationship satisfaction?
 - 5.4 Is there a relation between Internet Pornography Consumption and positive outcome expectancies concerning Internet Pornography Consumption?
 - 5.5 Is there a relation between Internet Pornography Consumption and negative outcome expectancies concerning Internet Pornography Consumption?

2. Method

2.1 Respondents and Procedure

The current research is designed as a cross-sectional survey study with one measurement moment. The data of this research was collected between June 26th 2012 and July 10th 2012 via an online questionnaire in Germany. The inclusion criteria of this research were being aged between 18 and 35 years and being native German; in terms of being able to understand and read German language. Considering the recruitment procedure, it was attempted to achieve an adequate sample of the German population in the age group 18-35 years. The participants were recruited via e-mail and social network (Facebook.com, via personal account of researcher). To minimize the effect of selection bias, the procedure was as follows: initially eighty persons were approached and asked to pass the cover letter with the study link to four further persons, thereby randomly selecting out of their existing circle of friends. Every person was clearly informed about the background, purpose and topic of the study by means of a cover letter. It was especially emphasized that anonymity of their answers is provided. Finally participants were shortly debriefed and asked if they would like to receive an elaborated report of the study results and if so, an e-mail address was noted. Altogether 320 persons are approached whereof 231 began to fill in the questionnaire. Finally, 198 respondents completed the survey; this implies a response rate of 63%.

2.2 Measurement instrument: the online questionnaire

In the following section the measurement instruments are described. A questionnaire was developed that measures antecedents and consequences of Internet Pornography Consumption in the German population effectively. The final paper and pencil version of the measurement instrument was proofread by four native Germans, who estimated it as good understandable and clearly formulated. Furthermore twelve Germans meeting the inclusion criterion of this research filled in the online version of the questionnaire to estimate the time and be assured that the formulations are clear. Corrections concerning test understandability were not necessary. The mean time to fill in the whole questionnaire was estimated at approximately 20 minutes. For a complete overview of the questionnaire and the individual scales, see Appendix B.

Demographic Variables. Firstly the demographic information of the respondents is assessed, including gender, age, highest education until now (German educational system: Hauptschule, Realschule, Gymnasium, academic studies), daily occupation (unemployed,

househusband/-wife, vocational education, pupil/student, employed), marital status (single, married, divorced), relationship status, relationship quantity and sexual orientation (heterosexual, homosexual, bisexual). Furthermore a detailed description of Internet pornography regarding the current research is provided [The term Internet pornography describes professional or user-generated (audio-) visual content on or from the Internet that typically intend to arouse the viewer. This sexually explicit material depicts sexual activities and (aroused) genitals in unconcealed ways, often with close-ups of oral, anal, and vaginal penetration (both videos and pictures)].

Internet Pornography Consumption. The frequency of pornographic material consumption is assessed by means of two items, namely how often the participant used Internet Pornography in the previous week and how often the participant used Internet Pornography in the previous month (“How often did you use Internet Pornography in the previous week?”; “How often did you use Internet Pornography in the previous month?”). The time is detected by means of the question how long pornography is watched per session on average, measured in minutes (“How long do you watch Internet Pornography per session on average?”). Through assessing the variables in this way it was possible to compute two items explaining the consumption in the previous week and in the previous month in minutes, by separately multiplying the two individual frequency-measures by time in minutes. Finally a score comprising the *average weekly Internet Pornography Consumption* in minutes per respondent could be computed based on weekly and monthly Internet Pornography Consumption; with this method deviations could be minimized. The calculation is as follows: monthly consumption is divided by four, yielding an average weekly consumption score. This average weekly consumption score is summarized by the previously obtained weekly consumption score and this sum is ultimately divided by two. Following the measures of the variables preceding Internet Pornography Consumption are introduced.

General Sensation Seeking. The general sensation seeking scale consists of four items (BSSS-4) and is adapted from Hoyle, Stephenson, Palmgreen, Lorch, and Donohew (2002). Sensation seeking is “a trait defined by the seeking of varied, novel, complex, and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experience” (Zuckerman, 1994, p. 27). The items are measured using a five-point Likert scale [1 (applies not at all), 2 (barely applies), 3 (applies a little), 4 (rather applies), 5 (applies very much)]. Mean scores are computed for this scale by dividing the total score by the number of items. The items formed an acceptable scale with an alpha of 0.79 (Example item: “I would like to explore strange places.”).

Sexual Sensation Seeking. The sexual sensation seeking scale is composed of eleven items (Kalichman & Rompa, 1995; Gaither & Sellbom, 2003) and especially assesses the tendency to search out arousing and exciting sexual experiences. Mean scores were computed for the scale by dividing the total score by the number of items. The items are measured by means of a five-point Likert scale [1 (applies not at all), 2 (barely applies), 3 (applies a little), 4 (rather applies), 5 (applies very much)]. A sample item is: “When it comes to sex, physical attraction is more important to me than how well I know the person.” The sexual sensation seeking scale provided a Cronbach’s alpha of 0.88 and thus had good internal consistency.

Attitude toward Pornography. Nine items are used to assess the attitude toward pornography (Svedin, Akerman, & Priebe, 2011). Four statements of this scale are recoded, so as to assure that a high value indicated a favorable attitude. The items are measured by means of a five-point Likert scale [1 (strongly disagree), 2 (disagree), 3 (somewhat agree), 4 (agree), 5 (strongly agree)]. “I believe pornography can stimulate people’s sex lives.” is a sample item. This scale disposed a good internal consistency with an alpha of 0.82.

Compulsive Internet Pornography Consumption. The first subscale of the Cyber Pornography Use Inventory is adopted by Grubbs, Sessoms, Wheeler and Volk (2010) and translated to specifically target addictive Internet Pornography Consumption patterns in the German population. Addictive respectively compulsive behavior is characterized by an inability to stop the behavior, significant negative effects as a result of the behavior, and a generalized obsession with the behavior (Delmonico & Miller, 2003; Grubbs et al., 2010). It is composed of eighteen items with two items recoded such that higher scores represent a more compulsive Internet Pornography Consumption. It is answered by means of a seven-point Likert scale [1 (strongly disagree), 2 (disagree), 3 (somewhat disagree), 4 (neither agree nor disagree), 5 (somewhat agree), 6 (agree), 7 (strongly agree)]. The Cronbach’s alpha of this scale is 0.86, so the internal consistency proved to be good. A sample item is: “I have stayed up after midnight to access pornography online.”

Motives of Internet Pornography Consumption. This part of the current research is exploratory, thus two new composed scales are used attempting to fill gaps in the literature. Firstly, an extensive literature study is accomplished to assess the reasons and motives respectively the emotions of the participants using Internet Pornography (Grubbs et al., 2010; Goodson et al., 2000; Svedin, Akerman, & Priebe, 2011; Paul & Shim, 2008; Boies, 2002). After that, two comprehensive scales derived from different existing scales are developed, measuring the individual cognitive and affective motives to consume pornographic material on the Internet. Thirty-one items assess the cognitive motives of Internet Pornography

Consumption (Example item: “Internet pornography informs me”) and thirteen items measure affective motives concerning Internet Pornography Consumption (Example item: “After the consumption of Internet Pornography I feel satisfied”). These scales are answered by means of a five-point Likert scale to determine the degree of personal agreement [1 (strongly disagree), 2 (disagree), 3 (somewhat agree), 4 (agree), 5 (strongly agree)]. Due to the exploratory character of this scale, a factor analysis is executed to reduce the items to fewer dimensions (which are anticipated through earlier literature search) and accordingly to identify the items with the highest loadings. The exact original composition of the scale, determined by source of the individual items and its order; the ensuing dimension reduction and finally the composition, denotation and reliabilities of the new constructs are described in Appendix A. Subsequently the scales examining behavioral consequences of Internet Pornography Consumption are introduced.

Interpersonal Sexual Behavior. This construct included a measure of the frequency of interpersonal sexual behavior in the previous week and in the previous month (“How often did you have sexual intercourse in the previous week?”; “How often did you have sexual intercourse in the previous month?”). Finally a score determining the ***average weekly Sexual Contacts*** per respondent can be computed. To minimize deviations, the calculation is as follows: The number of sexual contacts in the previous month divided by four is summarized by the sexual contacts in the previous week; this sum is ultimately divided by two.

Solely Sexual Behavior. The masturbation behavior is assessed by two items asking how frequent the participant did masturbate in the previous week and in the previous month. Again, finally a score covering the ***average weekly Masturbation Occasions*** per respondent can be computed. To minimize deviations, the calculation is as follows: The masturbation occasions in the previous month divided by four are summarized by the masturbation occasions in the previous week; this sum is ultimately divided by two. Moreover the mode of Internet Pornography Consumption is asked: “Do you consume Internet Pornography usually alone, with your partner, with a friend or with a group of people?”.

Individual Previous Sexual Behavior Factors. This concept consists of seven individual variables. Four items are used to obtain information in relation to the sexual behavior history in terms of number of partners and first experiences. Those items are assessed by means of one question each with the possibility to fill in a number: “At which age did you have your first sexual intercourse?”; “At which age did you watch the first pornographic material?”; “How many lifetime sexual partners did you have?”; “How many lifetime casual sexual partners did you have?” [At this point a description regarding ‘casual

sexual intercourse' is provided: casual sexual contact with known or unknown persons, with whom no monogamous or committed relation exists, non-recurring (One-Night-Stand) as well as repeated sexual contact.]. The remaining three items are dichotomous, indicating previous healthy or unhealthy sexual behavior via occurrence or non-occurrence of each item (no=1 and yes=2): "Did you use a condom during the last sexual intercourse?" (recoded); "Did you ever have transactional sex (pay or receive money for sex)?"; "Did you ever have a sexually transmitted disease (STD)?" Below the measurement instruments of the cognitive concepts influenced by Internet Pornography Consumption are introduced.

Sexual Permissiveness. The sexual permissiveness of the respondents is assessed with a short scale with ten items adopted by Hendrick, Hendrick, & Reich (2006). A sample item is: "Casual sex is acceptable". The degree of agreement can be indicated on a five-point scale [1 (strongly disagree), 2 (disagree), 3 (somewhat agree), 4 (agree), 5 (strongly agree)]. This construct disclosed an alpha of 0.89, thus the reliability was sufficiently high.

Questionnaire on Life Satisfaction (FLZ). The two subscales 'Sexuality' and 'Relationship and Marriage' of the German FLZ (Fahrenberg, Myrtek, Schumacher, & Brähler, 2000) are measured with seven items each. The degree of satisfaction with each area of life is indicated on a seven-point Likert scale [1 (very dissatisfied), 2 (dissatisfied), 3 (rather dissatisfied), 4 (neither satisfied nor dissatisfied), 5 (rather satisfied), 6 (satisfied), 7 (very satisfied)]. A sample item of the sexuality scale is: "With my physical attractiveness, I am...". The scale relationship is related to the satisfaction in the actual relationship; e.g. "With the honesty and openness of my partner, I am..." Both scales proved reliable, with $\alpha = 0.87$ respectively $\alpha = 0.92$.

Pornography Consumption Outcome Expectancies. A translation of the Pornography Consumption Effect Scale developed by Hald and Malamuth (2008) is used to measure self-perceived outcome expectancies of Internet Pornography exposure on different areas of consumer's life. The forty-seven items were assessed with a seven-point Likert scale [1 (not at all), 2 (to a very small extent), 3 (to a small extent), 4 (to a moderate extent), 5 (to a large extent), 6 (to a very large extent), 7 (to an extremely large extent)]. This scale can be divided into overall positive outcome expectancies (OEP; 27 items) and overall negative outcome expectancies (OEN; 20 items). Moreover there are five different constructs each with several items formulated positive and several items formulated negative [sex life, life in general, perception of the opposite gender, attitudes toward sex and sexual knowledge (only positive items)] whereof nine individual subscales can be created. In the current research mean scores were computed for the OEP, the OEN and each of the nine subscale by dividing the total

score by the number of items. Subsequently the different subscales are described, having regard to example-items and the reliabilities. The belonging of a single item to positive respectively negative outcome expectancies is indicated through (P) respectively (N) in parentheses. Regarding positive outcome expectancies, consisting of twenty-seven items, an excellent alpha of .97 is detected. The twenty items concerning negative outcome expectancies formed a highly reliable scale with an alpha of .90. The pilot question, that is prefixed to every of the forty-seven questions, is: “To what extent do you believe that your consumption of pornography...”

Sex Life. The sex life scale is used to explore effects of consumption on one’s sex life and sexual behaviors and is composed of thirteen items. Example items are: “(P) Has added something positive to your sex life?” and “(N) Generally, has given you performance anxiety when you are sexually active with others (e.g., during intercourse, oral sex, etc.)?”. The five positive items disclosed an excellent alpha of 0.92. The eight items assigned to the negative effects revealed an alpha of 0.82, thus the reliability was sufficiently high.

Attitude toward Sex. To assess the attitude toward sex, constructed to investigate effects of consumption on opinions and outlook toward sex, ten items are measured. The construct consisted of five items belonging to the OEP, displaying an excellent alpha of 0.92, and five items belonging to the OEN, displaying an acceptable internal consistency with a Cronbach’s alpha of 0.75. Example items are: “(P) Has made you more sexually liberal?” and “(N) Has adversely affected your outlook on sex?”.

Perception of and Attitude toward the Opposite Gender. This construct is used to tap into effects of consumption on the perception of and attitudes toward the opposite gender. Overall seven items assessed this construct; four of these belonging to the OEP, three belonging to the OEN. The positive items disclosed an alpha of 0.83, after deleting item 38 (“Has led you to view the opposite gender less stereotypically?”) the scale reached a sufficient internal consistency with an alpha of 0.86. The negative items formed an acceptable scale with an alpha of 0.73. A sample item regarding positive outcome expectancies is: “(P) Has made you friendlier toward the opposite gender?” a sample item regarding negative outcome expectancies is: “(N) Has adversely affected your views of the opposite gender?”.

Life in General. The scale concerning life in general is created to investigate effects of consumption on life in general and is composed of eight items; four items per outcome expectancies. The Cronbach’s alpha regarding the positive items is 0.85, thus the reliability of the scale proves satisfactory. A sample item regarding positive outcome expectancies is: “(P) Has improved your quality of life?”. Concerning the negative formulated items, initially an

alpha of 0.70 is found, which is increased to 0.80 after deletion of item 10: “Has made you less satisfied with your life?”. A remaining sample item in respect of negative outcome expectancies is: “(N) Has made your life more problematic?”.

Sexual knowledge. Nine items, all belonging to positive outcome expectancies, assess the sexual knowledge. This construct is used to examine effects of consumption on knowledge of sex and sexual desire. The scale displayed an excellent reliability (Cronbach’s $\alpha = 0.94$). Example items are: “Has improved your knowledge of sex?”; “Has taught you something new about your sexual desires?”.

2.3 Data analysis

All statistical analyses are performed using the statistical software program for social sciences (SPSS 20.0). All results are presented by means of a fourfold categorical variable of weekly Internet Pornography Consumption. This means the continuous variable ‘average weekly Internet Pornography Consumption’ is transformed into four factors by merging categories, indicating non-use of Internet Pornography, low Internet Pornography use, moderate Internet Pornography use and high Internet Pornography use. The chosen criterion of classification facilitates a differentiated view on the Internet Pornography Consumption of the German sample and factors related to it. Proceeding the development of the four user-groups based on quantity (both measured by time and frequency) of Internet Pornography Consumption is precisely explained. First of all, every respondent is asked if he/she ever used Internet Pornography, those negating this represent the non-users group comprising 65 persons (28%). Secondly, the remaining 166 users (72%) are cut exact at thirds, resulting in three groups termed low users (24%), moderate users (25%) and high users (23%); the cut off values are obtained statistically. On the one hand, the classification in finally four user-groups is based on the observed distribution of the sample, as these groups seem to have similar size and satisfactory deviation values (by contrast to larger groups). On the other hand, this classification is executed due to literature based considerations, as behavior and the valence of cognitions and emotions generally differ according to quantity of Internet Pornography Consumption. Moreover several researches emphasized that frequent users of Internet Pornography have an outstanding role (Carroll et al., 2008; Wetterneck, Burgess, Short, Smith, & Cervantes, 2012; Svedin et al., 2011). As it is anticipated that this finding also applies among young German adults, the four user-groups are built to identify typical respectively special characteristics dependent on average weekly Internet Pornography Consumption quantity.

Pertaining to detailed statistical analyses, differences between the four user-groups generated on the basis of consumption quantity are tested by Analysis of Variance (ANOVA) and Bonferroni multiple comparisons. For categorical variables, between group differences are analyzed by use of Chi-Square (χ^2). If the expected count of one or more cells is less than five, no reliable chi-square analysis would be exercisable, consequently results cannot be displayed and differences between groups cannot statistically be proved. Due to the designed user-groups it is possible to create and analyze smaller crosstabs to avoid too little expected count of the cells. In addition, due to previous compelling findings, independent samples t-tests are used to analyze differences of the concepts according to gender, independent of user-group classification. Those are presented separately at the end of each section. Moreover gender is controlled as fixed factor in ANOVA (as moderating variable) for all factors, to detect interaction effects. As several differences in concepts according to Internet Pornography Consumption quantity are presumably mediated by gender, individual one-way Analyses of Covariance (ANCOVA) are conducted (Appendix A).

To be able to manage low sample sizes and therefore to warrant the highest statistical power possible, several between group differences in relation to weekly Internet Pornography Consumption and respondent characteristics concerning certain scales are analyzed with the aid of twofold categorical variables. This means a continuous variable is transformed into two groups by split median method, representing a low respectively a high value of a particular characteristic. A categorical variable is transformed into two factors by merging categories, determined by logical, literature-based considerations. Relations between variables are analyzed with Pearson correlation coefficients. To explain Internet Pornography Consumption respectively to explain factors influenced by Internet Pornography Consumption, multiple hierarchical regression analyses are used. In all cases statistical significance is achieved when $p > .05$ (two-tailed).

3. Results

In this paragraph, the results are presented. The first section covers the description of the sample characteristics, beginning with Internet Pornography Consumption rates among the German sample; additionally the obtained demographic information is illustrated. In the second section, differences in the concepts presumed to be antecedents according to user-groups are investigated. The behavioral factors presumed to be consequences of Internet Pornography Consumption are statistically interpreted in the third paragraph. The fourth section covers the evaluation of cognitive factors assumed to be positively or negatively related to Internet Pornography Consumption. In the fifth paragraph the analyses of correlation are presented, while in the sixth section the examinations of regression are introduced.

3.1 Sample Characteristics

3.1.1 Internet Pornography Consumption among the German sample

Internet Pornography Consumption is evident among young adults in Germany, as 71% of the German sample ever used it with an average quantity of nearly forty minutes per week ($SD = 72.67$). As the earlier mentioned prevalence levels to date are usually divided by gender, subsequently the rates for German males and females are presented. Of the current sample, 92% of males (103 persons) and roughly half of females (52%; 63 persons) ever consumed Internet Pornography. To be more specific, 77% of the men in this sample and 21% of the women consume Internet Pornography on average on a weekly basis. The average quantity of German male users is fifty minutes weekly ($SD = 80.7$) compared to female users with an average quantity of less than ten minutes per week ($SD = 32.2$). The computations clearly illustrate that Internet Pornography Consumption differs significantly according to gender ($t(229) = 5.2, p = .001$).

Pertaining to the user-groups based on Internet Pornography Consumption quantity, a differentiated classification is illustrated. For low users the average numbers of occasions using Internet Pornography are once in two months, for moderate users once per week and more than four times per week for high users ($F(2,163) = 63.79, p < .001$). The mean duration per session is concerning the different user-groups respectively eleven minutes, twenty minutes or almost half an hour ($F(2,163) = 17.25, p < .001$). In sum, comparing the resultant average weekly Internet Pornography Consumption quantity, low users watch less than one minute per week, moderate users nearly fifteen minutes and high users 106 minutes, which

equals one hour and three quarters. Analysis of variance evidence that these three user-groups differ significantly ($F(2,163) = 56.82, p < .001$; Bonferroni multiple comparisons: low-moderate: *ns*; moderate-high: $p < .001$; low-high: $p < .001$).

3.1.2 Demographic Variables I

Table 1 presents the demographic characteristics of the research sample. The first, second, third and fourth column display the characteristics respectively separated for non-users, low users, moderate users and high users of Internet Pornography. In the last column the information concerning the total population sample is depicted.

Table 1 Demographic information of the German respondents separated on basis of weekly Internet Pornography Consumption quantity, depicted in frequencies (*n*) and percent (%) in brackets

	non-users (<i>n</i> =65)		low users (<i>n</i> =55)		moderate users (<i>n</i> =57)		high users (<i>n</i> =54)		Total population (<i>N</i> =231)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender										
Male	9	(14%)	17	(31%)	38	(67%)	48	(89%)	112	(49%)
Female	56	(86%)	38	(69%)	19 ^{***2/6}	(33%)	6 ^{*3} ***4/5	(11%)	119	(51%)
Age										
Mean (<i>SD</i>)	25.68	(4.91)	26.02	(4.30)	25.09	(4.25)	24.93	(4.40)	25.44	(4.48)
younger than 25 years	31	(48%)	23	(42%)	29	(51%)	33	(61%)	116	(50%)
older than 25 years	34	(52%)	32	(58%)	28	(49%)	21	(39%)	115	(50%)
Education										
,Hauptschule‘	3	(5%)	0		4	(7%)	5	(9%)	12	(5%)
,Realschule‘	23	(35%)	14	(25%)	14	(25%)	11	(21%)	62	(27%)
,Gymnasium‘	19	(29%)	12	(22%)	20	(35%)	14	(26%)	65	(28%)
Studies	20	(31%)	29	(53%)	19	(33%)	24	(44%)	92	(40%)
Daily Occupation										
unemployed	0		1	(2%)	4	(7%)	1	(2%)	6	(3%)
housewife	6	(9%)	2	(3%)	1	(2%)	1	(2%)	10	(4%)
professional education	15	(23%)	6	(11%)	10	(18%)	7	(13%)	38	(16%)
student	6	(9%)	17	(31%)	7	(12%)	16	(29%)	46	(20%)
employed	38	(59%)	29	(53%)	35	(61%)	29	(54%)	131	(57%)

Note. * $p < .05$ ** $p < .01$ *** $p < .001$; describing significant difference between
¹ non users and low users ² low users and moderate users ³ moderate users and high users
⁴ non users and high users ⁵ low users and high users ⁶ non users and moderate users

In total 231 patients who met the research criterion participated, whereof 49% are male and 51% are female. Age ranges from 18 to 35 years, with an average age of 25 years. Regarding the highest education until now, thus relating to the socio-economical status, most of the participants still participate in or completed higher education by means of academic studies

(40%). Nearly the same proportion of the sample (27% respectively 28%) completed Realschule (higher secondary school qualification) or Gymnasium (general university entrance qualification). Most of the respondents are employed (57%), the second largest group with respect to daily occupation are students (20%) followed by those making professional education (16%).

Concerning disparities between the four user-groups, ANOVA reveal large gender differences ($F(3,227) = 40.76, p < .001$). Bonferroni multiple comparisons specify that significant differences (at least on the $p < .05$ level) are detectable comparing all user-groups among each other, except between non users and low users (*ns*). Consequently, studying the means and percentages it is clear that significantly more men than women are in the moderate and high user-groups as opposed to the non- and low user-groups, consisting of significantly more women than men. Concerning mean age and the chosen age categories (younger respectively older than 25 years) there are no significant differences found between the groups (age: $F(3,227) = .72, ns$; age groups: $F(3,227) = 1.43, ns$); just as for the highest education until now ($\chi^2 (df = 9) = 14.15, ns$). With regard to daily occupation, no reliable Chi-Square analysis is exercisable, but studying the number and percentages of respondents it is obvious that there are more students in the low and in the high user-groups than in the other groups. Furthermore, neither differences of age, education and daily occupation according to gender (independent of user-group classification) are discovered, nor interaction effects of gender and user-groups are detected.

Summarized, the total sample is an adequate representation of young adults in Germany. The proportion of men respectively women is nearly equal; gender differences detected in the user-groups are as expected based on quantity of Internet Pornography Consumption. The age allocation in the total sample is also equal, but without traceable disparities in the user-groups. Regarding daily occupation most respondents are working, as in the general German population. However, as a noteworthy proportion of actual students already illustrate, it seems that the sample is on average high educated, while differences in education and daily occupation according to user-groups are not notably large.

3.1.3 Demographic Variables II

Table 2 covers information on intimate personal and interpersonal characteristics of the research sample.

Table 2 Demographic information regarding intimate relationship characteristics of the German respondents, separated on basis of weekly Internet Pornography Consumption quantity, depicted in frequencies (*n*) and percent (%) in brackets

	non-users (<i>n</i> =65)		low users (<i>n</i> =55)		moderate users (<i>n</i> =57)		high users (<i>n</i> =54)		Total population (<i>N</i> =231)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Marital status										
Single	49	(75%)	47	(85%)	49	(86%)	49	(91%)	194	(84%)
Married	14	(22%)	8	(15%)	7	(12%)	4	(7%)	33	(14%)
Divorced	2	(3%)	0		1	(2%)	1	(2%)	4	(2%)
Sexual orientation										
Heterosexual	60	(92%)	53	(96%)	48	(84%)	49	(91%)	210	(91%)
Homosexual	3	(5%)	0		2	(4%)	3	(5%)	8	(3%)
Bisexual	2	(3%)	2	(4%)	7	(12%)	2	(4%)	13	(6%)
Relationship status										
in relationship	41	(63%)	42	(76%)	35	(61%)	25** ⁵	(46%)	143	(62%)
not in relationship	24	(37%)	13	(24%)	22	(39%)	29	(54%)	88	(38%)
Mean duration (SD)	57.78	(53.17)	44.95	(4.48)	47.46	(5.0)	42.80	(38.9)	48.87	(46.46)

Note. **p* < .05 ***p* < .01 ****p* < .001; describing significant difference between ⁵ low users and high users

In the current research, further important characteristics to note are the marital status, the sexual orientation and the relationship status. Most participants of this German sample are singles (84%), followed by being married (14%). In most instances the respondents are heterosexual (91%), some have bi- or homosexual orientation (9%). Nearly two thirds of the respondents (62%) are in a steady relationship with an average duration of 46 months (roughly four years).

Concerning marital status no significant differences are found between the user-groups (χ^2 (*df* = 6) = 9.67, *ns*), just as concerning sexual orientation (split in two groups indicating heterosexuality and homo-bi-sexuality; (*F*(3,227) = 1.75, *ns*). Regarding relationship status a difference between the user-groups is detected; in the high user-group significant less respondents are in an intimate relationship than in the low user-group (*F*(3,227) = 3.6, *p* < .05; Bonferroni comparison for low and high: *p* = .007). However, the general average duration of relationships does not differ (*F*(3,139) = .75, *ns*). Furthermore, differences of these investigated sample characteristics according to gender are not detected independent of user-

group classification; idem applies to interaction effects of gender and user-groups.

In sum, the distribution of the sexual orientation seems to be normal for the German population, and although most of the young Germans in this sample are not married until now, roughly two thirds living in steady relationships with a considerable average duration of four years. This pattern is comprehensible considering the mean age of the sample. Notably, examining the relationship status, individuals in the high user-group are obviously less often in a steady relationship. However, a statistical significant difference is only found compared to low user-group.

3.2 Antecedents of Internet Pornography Consumption

3.2.1 General Sensation Seeking, Sexual Sensation Seeking, Attitude toward Pornography and Compulsive Internet Pornography Consumption

Table 3 presents the description of the concepts presumed to impact Internet Pornography Consumption among the young German adults.

Table 3 Information regarding antecedents of Internet Pornography Consumption of the German respondents separated on basis of weekly Internet Pornography Consumption, depicted in means (*M*) and standard deviation (*SD*) in brackets

	non-users (<i>n</i> =62)		low users (<i>n</i> =43)		moderate users (<i>n</i> =52)		high users (<i>n</i> =41)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
General Sensation Seeking	2.57	(.71)	2.67	(.93)	3.01* ⁶	(.80)	3.40*** ^{4/5}	(.82)
Sexual Sensation Seeking	2.44	(.52)	2.71* ¹	(.67)	3.17** ² *** ⁶	(.68)	3.65** ³ *** ^{4/5}	(.66)
Attitude toward Pornography [#]	2.61	(.55)	3.04*** ¹	(.56)	3.52*** ^{2/6}	(.58)	3.85** ³ *** ^{4/5}	(.58)
Compulsive Internet Pornography Use ⁺	<i>n/a</i>		1.74	(.60)	2.30** ²	(.80)	2.85** ³ *** ⁵	(1.01)

Note. All scales range between 1 (lowest score) and 5 (highest score) except Cyber Pornography Use Inventory, this scale range between 1 (lowest score) and 7 (highest score).

[#] regarding Attitude toward Pornography there are 65 respondents in non-users, 55 respondents in low users, 57 persons in moderate users and 54 respondents in high users group.

⁺ regarding Compulsive Internet Pornography Consumption there are 54 respondents in low users, 57 persons in moderate users and 54 respondents in high users group. Not applicable by non users.

p* < .05 *p* < .01 ****p* < .001; describing significant difference between

¹ non users and low users ² low users and moderate users ³ moderate users and high users

⁴ non users and high users ⁵ low users and high users ⁶ non users and moderate users

Taking a first look at the mean scores of the four scales it has to be noted that an increasing tendency of the scores is detectable regarding the rising Internet Pornography Consumption in minutes. The general sensation seeking computations reveal significant differences between the user-groups ($F(3,194) = 10.15$ $p < .001$). Further analysis detect disparities between non-

and moderate users ($p = .024$) and between non- and low users compared to high users (both $p < .001$). The results concerning sexual sensation seeking offer a more differentiated picture ($F(3,194) = 34.94$ $p < .001$; non users compared to moderate and high users: $p < .001$; low – moderate: $p = .003$; low – high: $p < .001$; moderate – high: $p = .002$). Concerning the attitude toward pornography, the differences according to user-groups are also statistically significant ($F(3,227) = 54.98$ $p < .001$); Bonferroni multiple comparisons detect that all user-groups significantly differ (all $p < .001$ with one exception: moderate – high: $p = .012$). The German respondents separated on the basis of consumption quantity also differ significantly regarding their compulsive Internet Pornography Consumption ($F(2,162) = 24.8$ $p < .001$; low – moderate: $p = .001$; moderate – high: $p = .002$; low – high: $p < .001$). Splitting the variable ‘compulsive Internet Pornography Consumption’ at median, the resulting two groups indicate low and high addictive users. Further analysis emphasizes that 76% of the respondents in the high Internet Pornography user-group display higher compulsive characteristics, in comparison to half of the moderate users and only a fifth of the low users. Anyway, considering the fact that the scale ranges from 1 to 7, the mean scores are still considerable low (low compulsive users: $M = 1.63$, $SD = .74$; high compulsive users: $M = 2.38$, $SD = .70$).

Concerning differences of the antecedent variables according to gender, independent of user-group classification, all four concepts differ significantly within the meaning that men score higher than women (general sensation seeking: $t(196) = 3.12$, $p = .002$; sexual sensation seeking: $t(196) = 6.5$, $p < .001$; attitude toward pornography: $t(229) = 8.09$, $p < .001$; compulsive Internet Pornography Consumption: $t(163) = 4.3$, $p < .001$). Therefore, as no interaction effects but clear differences according to gender are found, analyses of covariance are conducted. By means of ANCOVA, a mediating influence of gender on the relationship between attitude and user-groups based on Internet Pornography Consumption quantity is found. To be specific, the attitude scores gradually and significantly increase between all groups controlling for the effect of gender, especially males are more prone to high Internet Pornography Consumption due to their higher values of attitude toward pornography. In continuative analyses estimated adjusted means will be used (see Appendix A).

Summarized, all concepts regarded as antecedents differ significantly according to the classification based on quantity of Internet Pornography Consumption; especially an outstanding role of individuals in the high user-group is emphasized. The concept of sexual sensation seeking illustrates compared to general sensation seeking an advanced view regarding Internet Pornography Consumption; therefore the variable sexual sensation seeking is favored over the variable general sensation seeking in the course of the analyses. Generally,

it has to be noted that the occurrence of compulsive Consumption patterns in the German sample is considerably low. The attitude toward pornography is overall favorable, while males' opinion is clearly more positive. For this reason, the adjusted scores are estimated controlling for the influence of gender. Anyway, it has to be noted that differences between user-groups do not shift.

3.2.2 Cognitive and Affective Motives of Internet Pornography Consumption

Table 4 covers the descriptive statistics of the exploratory scale regarding the different functions that Internet Pornography Consumption fulfills.

Table 4 Information concerning cognitive and affective reactions to Internet Pornography of the German respondents separated on basis of weekly Internet Pornography Consumption, depicted in means (*M*) and standard deviation (*SD*) in brackets

	low users (<i>n</i> =42)		moderate users (<i>n</i> =52)		high users (<i>n</i> =41)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Cognitive aspects</i>						
1. education / inspiration	2.06	(.72)	3.03*** ²	(.96)	3.46*** ⁵	(.84)
2. arousal /masturbation / curiosity	2.27	(.92)	3.46*** ²	(.86)	3.85*** ⁵	(.71)
3. stress release / distraction	1.33	(.46)	2.25*** ²	(.87)	2.89** ³ *** ⁵	(1.14)
4. improvement of relation	1.33	(.58)	1.87*** ²	(.88)	2.01** ⁵	(1.26)
5. indifference recoded	3.06	(1.41)	3.86** ²	(1.13)	4.31*** ⁵	(.96)
<i>Affective aspects</i>						
6. satisfaction / good feelings	2.37	(1.16)	3.42*** ²	(.94)	3.69*** ⁵	(.70)
7. guilt / shame recoded	4.54	(.69)	4.31	(.73)	4.37	(.69)
8. disgust / depression recoded	4.73	(.43)	4.67	(.59)	4.71	(.63)

Note. **p* < .05 ***p* < .01 ****p* < .001; describing significant difference between
² low users and moderate users ³ moderate users and high users ⁵ low users and high users

The groups separated on the basis of consumption quantity differ remarkably in the importance they ascribe to the different motives. Concerning the five cognitive aspects, all analyses of variance are at least significant at *p* ≤ .003 (F1: *F*(2,132) = 29.48, *p* < .001; F2: *F*(2,132) = 40.74, *p* < .001; F3: *F*(2,132) = 33.83, *p* < .001; F4: *F*(2,132) = 6.11, *p* = .003; F5: *F*(2,132) = 12.11, *p* = .003). As the means already emphasize an increasing tendency, Bonferroni multiple comparisons reveal that low and moderate users differ on all factors (all *p* < .01), just as low and high users (all *p* < .01); additionally the motive stress release differs in comparison of moderate to high users (*p* = .002). Concerning the three affective aspects, only satisfaction display a difference (F6: *F*(2,132) = 22.77, *p* < .001; low-moderate: *p* < .001; low-high: *p* < .001; moderate-high: *ns*). The factors guilt and disgust are not affected by consumption patterns (F7: *F*(2,132) = 1.26, *ns*; F8: *F*(2,132) = .17, *ns*).

Independent sample t-tests, examining differences in the concepts according to gender, reveal that men score significant higher on the following motives: 1. Education *t*(133) = 3.28,

$p = .001$; 2. Arousal and masturbation $t(133) = 3.03, p = .003$; 3. Stress release: $t(133) = 4.16, p < .001$; 5. Indifference: $t(133) = 2.98, p = .003$; 6. Satisfaction: $t(133) = 6.71, p = .008$. The remaining three constructs do not differ according to gender, although concerning the variable improvement of relation a moderating effect of gender ($F(1,129) = 12.83, p < .001$) and an interaction effect are established ($F(2,129) = 4.23, p = .02$). Women in the high user-group consume Internet Pornography clearly more often due to relationship improvement ($M = 3.4$) than females in the low and moderate group ($M < 2.0$) and male users at all (all groups $M < 2.0$). Further interaction effects of gender and user-groups are not detected.

In sum, this exploratory measure points out that the German individuals ascribe different valence to their reasons for Internet Pornography Consumption, particular education and sexual arousal are of highest importance. Furthermore the sudden stepwise increment of scores let assume that an overall involvement with Internet Pornography on a regular basis plays an important role in investigating cognitive and affective motives of Internet Pornography Consumption.

3.3 Behavioral Consequences of Internet Pornography Consumption

3.3.1 Interpersonal and Solely Sexual Behavior

Table 5 covers the average weekly sexual contacts and average weekly masturbation occasions of the German research sample.

Table 5 Sexual activities and of the German respondents separated on basis of weekly Internet Pornography Consumption quantity, depicted in frequencies (n) and percent (%) in brackets

	non-users ($n=65$)		low users ($n=43$)		moderate users ($n=52$)		high users ($n=41$)	
	n	%	n	%	n	%	n	%
ever had sex	62	(95%)	43	(100%)	52	(100%)	36 ^{***3/5}	(88%)
Mean weekly Sexual Contacts (SD)	1.68	(1.99)	2.23	(1.98)	1.78	(1.57)	1.85	(1.95)
ever masturbated	59	(91%)	40	(93%)	51	(98%)	41	(100%)
Mean weekly Masturbation Occasions (SD)	.83	(2.58)	.92	(1.16)	1.58	(1.34)	4.31 ^{***3/4/5}	(3.24)

Note: ³ $*p < .05$ ⁴ $**p < .01$ ⁵ $***p < .001$; describing significant difference between moderate users and high users non users and high users low users and high users

Regarding sexual experience, analysis of variance displays significant differences in user-groups ($F(3,197) = 3.89, p = .01$). Multiple comparisons make clear that low and moderate user-groups differ significantly in respect to the high user-group (both $p = .02$). The average weekly number of sexual contacts of the German respondents do not vary significantly

regarding quantity of consumption ($F(3,189) = .77, ns$). However, there is a moderating effect on average weekly sexual contacts, to be specific the relation between Internet Pornography Consumption quantity and average weekly sexual contacts depends on relationship status ($F(1,185) = 37.98, p < .001$). Anyway, even depending on relationship status, the average weekly sexual contacts do not significantly differ according to classified user-groups ($F(3,185) = .46, ns$). Individuals in a steady relationship have within two weeks on average three times more frequent sexual intercourse than singles ($M = .84$ respectively $M = 2.43$). Differences in general masturbation behavior according to user-group classification are not found ($F(3,197) = 2.03, ns$). Though, significant differences of average weekly masturbation occasions are detected ($F(3,187) = 22.85, p < .001$). Multiple comparisons demonstrate that high users differ from all other groups on the $p < .001$ level.

Independent of user-group classification, a difference in interpersonal sexual behavior according to gender is not detected, but regarding solely sexual behavior. To be specific, men masturbate considerable more often than women ($t(189) = 4.4, p < .001$; men: $M = 2.62, SD = 2.88$; women: $M = 1.03, SD = 2.07$). Furthermore a significant interaction between the four groups and gender is established for the quantity of masturbation occasions ($F(3,183) = 3.27, p = .02$), as women in the high user- group masturbate once per week more often than men (men: $M = 4.1$; women: $M = 5.83$) and in the non user-group men masturbate five times more frequent than women (men: $M = 2.75$, women: $M = .49$). Further significant interaction effects of gender and user-groups are not found regarding these constructs.

Closing, the average weekly sexual contacts do not differ according to quantity of Internet Pornography Consumption, but according to relationship status. The average weekly masturbation occasions are strongly related to Internet Pornography Consumption, as a clear increase in frequency is detectable in the group of high users compared to the other user-groups. This means that high users masturbate four times per week on average, compared to less than twice per week in the moderate user-group and nearly once per week in the low and non user-group. Additionally, a three-way interaction is discovered. The average weekly masturbation occasions do not only differ according to quantity of Internet Pornography Consumption and gender, but are moreover moderated through relationship status (user-groups*gender*relationship: $F(3,175) = 3.69, p = .01$). Women *without* relationship have increasing masturbation rates according to a higher consumption; in contrast men *with* relationship have increasing masturbation rates according to a higher consumption. Women *with* relationship only masturbate considerable more often when they consume high quantities of Internet Pornography; equal to men *without* relationship, thus only those belonging to the

high user-group masturbate considerable more often. Generally, the differences in masturbation occasions according to user-groups, moderated by relationship status but independent of gender is marginally significant ($F(1,183) = 3.61, p = .06$), as individuals in an intimate relationship masturbate fewer than single individuals.

3.3.2 Mode of Internet Pornography Consumption

Table 6 presents descriptive statistics identifying the most popular mode of Internet Pornography Consumption among young German adults.

Table 6 Preferred mode of the German respondents using Internet Pornography, separated on basis of weekly Internet Pornography Consumption quantity, depicted in frequencies (*n*) and percent (%) in brackets

	low users (<i>n</i> =55)		moderate users (<i>n</i> =57)		high users (<i>n</i> =54)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
alone	37	(67%)	51	(90%)	48	(89%)
with partner	12	(22%)	6	(10%)	6	(11%)
with a friend	2	(3%)				
with a group	4	(8%)				

As no reliable chi-square analysis is possible due to the fact that the expected count of four cells is less than five, a variable with two factors is computed, indicating the solely or joint Internet Pornography Consumption. Consequently, the situation concerning low users shifts, as 33% of those used Internet Pornography together with one or more other persons, compared to 10% and 11% in the moderate respectively high user group. Chi-square analysis reveals that in the low user-group compared to moderate and high user-groups significantly more respondents use Internet Pornography together with an intimate partner or friends ($\chi^2 (df = 2) = 11.94, p < .01$). Concerning gender differences, men watch Internet pornography significantly more often alone than women ($\chi^2 (df = 1) = 19.47, p < .001$).

In sum, several individuals with a low quantity of Internet Pornography Consumption consume sexually explicit material in a group to be entertained, and several individuals prefer to watch it together with their partner. Anyway, overwhelmingly Internet Pornography Consumption is a solely activity, as one out of ten persons prefers to consume Internet Pornography alone.

3.3.3 Individual factors concerning previous sexual behavior

Subsequently, in table 7 and table 8, the individual factors in respect to previous sexual behavior of the German respondents are presented.

Table 7 Individual factors concerning previous sexual behavior of the German respondents separated on basis of weekly Internet Pornography Consumption quantity, depicted in means (*M*) and standard deviations (*SD*) in brackets

	non users (<i>n</i> =62)		low users (<i>n</i> =43)		moderate users (<i>n</i> =52)		high users (<i>n</i> =36)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
- age first pornographic consumption [#]	<i>n/a</i>		16.55	(3.39)	15** ²	(2.21)	14.63*** ⁵	(1.79)
- age first sexual intercourse	16.47	(1.93)	16.67	(1.96)	16.52	(2.25)	16.22	(2.23)
- average number lifetime sexpartner	5.58	(5.19)	9.00	(8.03)	10.00	(12.1)	12.08** ⁴	(9.13)
- average number casual sexpartner	2.42	(4.19)	5.16	(7.60)	5.87	(9.97)	7.78** ⁴	(8.25)

Note: # regarding first pornographic consumption there are 55 respondents in low users, 57 persons in moderate users and 54 respondents in high users group. Not applicable by non users.
^{*}*p* < .05 ^{**}*p* < .01 ^{***}*p* < .001; describing significant difference between
¹ non users and low users ² low users and moderate users ³ moderate users and high users
⁴ non users and high users ⁵ low users and high users ⁶ non users and moderate users

Low users watched their first pornographic material significant later (one to two years) than moderate and high users ($F(2,163) = 8.68, p < .001$; low – moderate: $p = .005$; moderate – high: *ns*, low – high: $p < .001$). Notwithstanding, the average age of initiation of sexual behavior does not differ according to user-groups ($F(3,189) = .32, ns$). Concerning the mean number of lifetime sexual partners ($F(3,189) = 4.68, p < .01$) and the lifetime casual sexual partners ($F(3,189) = 4.20, p < .01$), Bonferroni multiple comparisons reveal significant disparities only between non-users and high users (sex-partner: $p = .004$; casual sex-partner: $p = .006$). Although the means of these variables generally display an ascending tendency, high users only have in comparison to non-users significantly more partners; anyway indicating a disadvantageous correlate of Internet Pornography Consumption.

General significant differences between the individual factors according to gender are also verifiable, as men on average have three lifetime sexual partners more than women ($t(191) = 2.71, p = .007$; men: $M = 10.66, SD = 11.0$; women: $M = 7.14, SD = 6.86$), just as three lifetime casual sexual partners (men: $M = 6.64, SD = 9.62$; women: $M = 3.55, SD = 5.53$; $t(191) = 2.78, p = .006$). Pertaining to the initiation of pornographic consumption and sexual intercourse, differences according to gender are not detected. Moreover, interaction effects of the user-groups and gender as moderating variable are not ascertained. The following table 8 presents further influential previous sexual behavior variables.

Table 8 Affirmative and negative answers concerning previous sexual behavior of the German respondents separated on basis of weekly Internet Pornography Consumption quantity, depicted in frequencies (*n*) and percent (%) in brackets

		non-users (<i>n</i> =62)		low users (<i>n</i> =43)		moderate users (<i>n</i> =52)		high users (<i>n</i> =36)	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Using condom	<i>yes</i>	29	(47%)	11	(26%)	22	(42%)	18	(50%)
last sexual	<i>no</i>	33	(53%)	32	(74%)	30	(58%)	18	(50%)
intercourse									
Ever having	<i>yes</i>	0		3	(7%)	7	(14%)	13 ³ / ⁴ / ⁵	(36%)
transactional	<i>no</i>	62	(100%)	40	(93%)	45	(86%)	23	(64%)
sex									
Ever having a	<i>yes</i>	1	(2%)	0		4	(8%)	7 ³ / ⁴ / ⁵	(19%)
sexually trans-	<i>no</i>	61	(98%)	43	(100%)	48	(92%)	29	(81%)
mitted disease									

Note: **p* < .05 ***p* < .01 ****p* < .001; describing significant difference between
³ moderate users and high users ⁴ non users and high users ⁵ low users and high users

The German respondents do arguably answer affirmative regarding the investigated events in their sexual behavior history. Especially the absence of protection during the last sexual intercourse is worrying at first view. It is found that 59% of all respondents acknowledge that they did not use a condom the last time they had sexual intercourse. Statistical analyses reveal that there is no significant difference between the four user-groups ($F(3,189) = 2.12, ns$). Anyway, splitting the file on the basis of relationship status disclose that of those 113 persons, who did not use a condom at their last sexual intercourse, 87 (77%) respondents are in a relation and 26 (23%) respondents are singles. Further analyses reveal that there is a moderating effect on condom use last sexual intercourse, to be specific the relation between Internet Pornography Consumption quantity and condom use last sexual intercourse depends on relationship status ($F(1,185) = 12.57, p < .001$), but still condom use last sexual intercourse does not significantly differ according to classified user-groups ($F(3,185) = 1.27, ns$). In detail, 70% of those persons having a steady partner did not use a condom; however it is very probably that couples use other methods of contraception. Closing, 38% of the singles without stable relationship did not protect themselves; this can certainly be seen as particular risk behavior indicator. Regarding transactional sex, 12% of the total sample has experience, in terms of receiving (8%) or paying (4%) money for sexual services. By means of ANOVA significant difference between the groups are detected ($F(3,189) = 11.40, p < .001$) and Bonferroni multiple comparisons show that high Internet Pornography users differ significantly from the other groups (non users – high: $p < .001$; low – high: $p < .001$; moderate – high: $p = .004$). The occurrence of an episode of a sexually transmitted disease again differs significantly between the groups, as high users are most often concerned

$(F(3,189) = 5.73, p = .001; \text{ non users – high: } p < .001; \text{ low – high: } p < .001)$.

Moreover differences in these risk behavior indicators according to gender are discovered, independent of user group classification. To wit, differences are established regarding having transactional sex ($t(191) = 2.96, p = .004$) and the occurrence of sexually transmitted diseases ($t(191) = 2.13, p = .035$), but not regarding condom use ($t(191) = .45, ns$). Hence, the German men in the sample had significant more often transactional sex and were more often diagnosed with a sexually transmitted disease than the women. There is no interaction effect ascertained concerning gender and user-group classification.

Summarized, an interesting fact to note is that the respondents in this sample on average watched the first pornographic material earlier than they had their first sexual intercourse. Regarding the number of sexual partners, a relation to Internet Pornography Consumption is disclosed, as high users had clearly more lifetime and casual sexual partners than non-users. It is worrying that a high proportion of individuals did not protect themselves with a condom during their last sexual intercourse. Especially alarming is the fact that 38% of the respondents without stable relationship did not use condoms, because exactly this represents risky sexual behavior. Idem applies to the presence of transactional sex experience and an episode of a sexually transmitted disease; these events are generally seen as indicator of risky sexual behavior. Consequently, it is disclosed that high Internet Pornography Consumption is associated with higher rates of previous unhealthy behavior, which in turn contribute to continuative unhealthy sexual behavior. Besides, it is remarkable that neither low nor moderate use is associated with sexual risk behavior.

3.4 Cognitive Consequences of Internet Pornography Consumption

3.4.1 Sexual Permissiveness, Sexual Satisfaction and Relationship Satisfaction

Table 9 covers the description of three concepts associated with Internet Pornography Consumption.

Table 9 Information regarding sexual permissiveness, sexual and relationship satisfaction of the German respondents separated on basis of weekly Internet Pornography Consumption quantity, depicted in means (*M*) and standard deviations (*SD*) in brackets

	non-users (n=62)		low users (n=43)		moderate users (n=52)		high users (n=36)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Sexual Permissiveness	2.20	(.67)	2.39	(.70)	2.80*** ⁶	(.92)	3.62*** ^{3/4/5}	(.84)
Sexual Satisfaction	5.13	(1.10)	5.55	(.80)	5.18	(1.20)	5.15	(1.18)
Relationship Satisfaction [#]	6.04	(1.06)	6.17	(.80)	5.91	(1.15)	5.56	(1.42)

Note: Scale concerning sexual permissiveness ranges between 1 (lowest score) and 5 (highest score)
 Scales concerning relationship and sexual satisfaction range between 1 (lowest score) and 7 (highest score)
[#] regarding relationship satisfaction there are 41 respondents in non-users, 42 persons in low users, 35 persons in moderate users and 25 respondents in high users group.
^{*}*p* < .05 ^{**}*p* < .01 ^{***}*p* < .001; describing significant difference between
³ moderate users and high users ⁴ non users and high users
⁵ low users and high users ⁶ non users and moderate users

The groups separated on the basis of consumption quantity differ remarkably in the intensity of their sexual permissive thoughts ($F(3,189) = 27.3, p < .001$). As already the means display an ascending tendency, the Bonferroni multiple comparisons make clear that the high user-group is the most sexually permissive (comparisons to all other groups significant on the $p < .001$ level) followed by moderate user-group which still significantly differs from the non-user group ($p < .001$). Concerning the satisfaction of the German respondents with their sex lives and their relationships, the statistical executions regarding group differences are not significant (sexual satisfaction: $F(3,189) = 1.54, ns$; relationship satisfaction: $F(3,139) = 1.72, ns$). However, there is a moderating effect on sexual satisfaction, to be specific the relation between Internet Pornography Consumption quantity and sexual satisfaction depends on relationship status ($F(1,185) = 6.8, p = .01$). Anyway, even depending on relationship status, sexual satisfaction still does not significantly differ according to classified user-groups ($F(3,185) = .43, ns$). Individuals in a steady relationship are significant more satisfied with their sex lives than singles, independent of Internet Pornography Consumption quantity ($M = 4.93$ respectively $M = 5.38$).

Regarding general male-female differences, the investigated concept sexual permissiveness differs according to gender, as the scores of men are significantly higher than those of women ($t(191) = 6.75, p < .001$), while sexual and relationship satisfaction do not

differ according to gender. Therefore, as no interaction effects but clear differences according to gender are found, analysis of covariance is conducted. By means of ANCOVA, a mediating influence of gender on the relationship between sexual permissiveness and user-groups based on Internet Pornography Consumption quantity is found. To be specific, the individuals in the high user-group have significantly higher sexual permissiveness scores than individuals in the three other groups, controlling for the effect of gender. Especially males are more prone to high Internet Pornography Consumption due to their higher values of sexual permissiveness. In continuative analyses adjusted means will be used (see Appendix A). Summarized, controlling for gender, a general increase in permissive thoughts according to Internet Pornography Consumption quantity is detected, but only the intense increase for high users is statistically significant.

3.4.2 Positive and Negative Outcome Expectancies of Internet Pornography Consumption

Table 10 presents the concepts impacted by Internet Pornography Consumption, both the positive and negative overall outcome expectancies and the corresponding particular constructs.

Table 10 Information regarding outcome expectancies of the German respondents separated on basis of weekly Internet Pornography Consumption, depicted in means (*M*) and standard deviation (*SD*) in brackets

	low users (<i>n</i> =48)		moderate users (<i>n</i> =52)		high users (<i>n</i> =42)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Overall Positive Outcome Expectancies</i>	2.23	(1.11)	3.34*** ²	(1.25)	3.69*** ⁵	(1.17)
Sex Life	2.65	(1.40)	3.76*** ²	(1.36)	4.23*** ⁵	(1.56)
Attitude toward Sex	2.53	(1.45)	3.75*** ²	(1.50)	4.04*** ⁵	(1.56)
Perception opposite gender	1.59	(.95)	2.54*** ²	(1.35)	2.45*** ⁵	(1.39)
Life in General	1.57	(.91)	2.38*** ²	(1.17)	2.70*** ⁵	(1.16)
Sexual Knowledge	2.44	(1.27)	3.75*** ²	(1.49)	4.28*** ⁵	(1.38)
<i>Overall Negative Outcome Expectancies</i>	1.23	(.29)	1.68** ²	(.70)	1.64*** ⁵	(.62)
Sex Life	1.18	(.32)	1.66** ²	(.79)	1.48	(.66)
Attitude toward Sex	1.23	(.32)	1.77** ²	(.98)	1.71** ⁵	(.74)
Perception opposite gender	1.52	(.89)	1.94	(.99)	1.99	(1.12)
Life in General	1.11	(.37)	1.35	(.67)	1.53* ⁵	(.99)

Note. Scales range between 1 (lowest score) and 7 (highest score).

p* < .05 *p* < .01 ****p* < .001; describing significant difference between

² low users and moderate users ³ moderate users and high users ⁵ low users and high users

First of all it has to be noted that all variables assessing positive outcome expectancies of Internet Pornography Consumption (except attitude and perception toward the opposite gender) indicate clearly increasing scores regarding the rising consumption in minutes. Concerning the negative outcome expectancies, there is an ascending tendency to see from low to moderate user-groups, but the scores seem to remain static comparing moderate and high user-groups. Moreover the mean scores make clear that the German individuals believe the likelihood of Internet Pornography Consumption leading to a positive outcome to be generally higher than the likelihood of Internet Pornography Consumption leading to a negative outcome.

The overall positive outcome expectancies and overall negative outcome expectancies differ significantly according to user-groups (OEP: $F(2,139) = 19.46$ $p < .001$; OEN: $F(2,139) = 9.32$ $p < .001$, both low to moderate comparisons and both low to high comparisons: $p < .001$). The individual constructs assessing positive consequences all differ significantly on the $p < .001$ level (Sex Life: $F(2,139) = 14.57$ $p < .001$; Attitude toward Sex: $F(2,139) = 13.3$ $p < .001$; Perception opposite gender: $F(2,139) = 8.55$ $p < .001$; Life in General: $F(2,139) = 13.38$ $p < .001$; Sexual Knowledge: $F(2,139) = 31.35$ $p < .001$). Concerning all individual scales, multiple comparisons outline that low and moderate users differ significantly (all $p \leq .001$); low and high users differ significantly (all $p < .001$; only perception opposite gender $p = .004$), while moderate and high users do not differ significantly (all comparisons *ns*). Regarding the individual perceived negative consequences of Internet Pornography Consumption, those differ significantly on the chosen significance level with Bonferroni analyses detecting several differences between low and moderate respectively low and high users (Sex Life: $F(2,139) = 7.43$ $p = .001$, comparison: low-moderate $p = .001$; Attitude toward Sex: $F(2,139) = 7.55$ $p = .001$, comparison: low-moderate $p = .001$, low-high $p = .008$; Perception opposite gender: $F(2,139) = 3.15$ $p < .05$; Life in General: $F(2,139) = 4.03$ $p < .05$, comparison: low-high $p = .017$).

Mentioning male-female differences independent of user-group classification, overall positive outcome expectancies are more pronounced for men than women ($t(140) = 4.29$, $p < .001$) while overall negative outcome expectancies do not differ according to gender ($t(140) = .99$, *ns*). Regarding the single positive constructs, men score significantly higher than women on all scales ($p < .001$), though regarding the single negative constructs no disparities according to gender are detected. Furthermore, no interaction effects of gender and user-groups are found.

Summarized, based on earlier experience with Internet Pornography, the German

sample ascribe more positive than negative outcomes to their Internet Pornography Consumption. Especially regarding the consequences with a positive valence, it is detected that the more frequent the Internet Pornography Consumption, the stronger the individual perceive positive effects. It is interesting that in regard to negative consequences a difference is only detectable between low users and the both remaining user-groups, as this implies that the more frequent the use of Internet Pornography, the perceived occurrence of negative effects does not increase.

3.5 Analysis of Correlation

The correlations between the particular constructs are analyzed by means of Pearson correlation coefficients (*r*).

3.5.1 Analysis of correlation concerning antecedents of Internet Pornography Consumption

Subsequently the correlation between concepts considered to be antecedents and weekly Internet Pornography Consumption is presented.

Table 11 Correlation Analysis of antecedents and average weekly Internet Pornography Consumption

	average weekly Internet Pornography Consumption
1. Gender	-.33***
2. General Sensation Seeking	.23**
3. Sexual Sensation Seeking	.35***
4. Attitude toward Pornography (adjusted means)	.53***
5. Compulsive Internet Pornography Use Patterns	.30***
6. Motives for Internet Pornography Consumption	
a. education / inspiration	.32***
b. arousal / masturbation / curiosity	.30***
c. stress release / distraction	.30***
d. relation improvement	.14
e. indifference recoded	.25**
f. satisfaction / good feelings	.24**
g. guilt / shame recoded	.02
h. disgust / depression recoded	.09

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

The correlations of the factors termed antecedents and the average weekly Internet Pornography Consumption are in most instances statistically significant, while revealing weak to moderate correlation coefficients. Regarding gender, the negative value indicates that being male is correlated to Internet Pornography Consumption. Concerning the remaining antecedents, the positive correlation coefficients indicate a positive relationship between the

particular factors and Internet Pornography Consumption. As the values for both sensation seeking constructs, attitude toward pornography and compulsive Internet Pornography Consumption Patterns increase, the value of average weekly Internet Pornography Consumption also increases. Moreover the cognitive motives for Internet Pornography Consumption are significantly related to Internet Pornography Consumption (6a to 6e; one exception: improvement of relationship). Regarding the affective motives for Internet Pornography Consumption (6f, 6g and 6h) only satisfaction is significantly linked to Internet Pornography Consumption, this means as the value of perceived good feelings pertaining to Internet Pornography Consumption increase, the Internet Pornography Consumption also increases.

3.5.2 Analysis of correlation concerning consequences of Internet Pornography Consumption

With respect to the individual positive and negative outcome expectancies assessed by means of the Pornography Consumption Effect Scale, further analysis revealed that those are adequately represented by the overall positive respectively negative outcome expectancies (see Appendix A). Consequently, simply the comprehensive overall positive respectively overall negative outcome expectancies are used in the correlation. Subsequent the correlation-analysis of the concepts considered to be consequences and average weekly Internet Pornography Consumption is displayed.

Table 12 Correlation Analysis of consequences and average weekly Internet Pornography Consumption

	average weekly Internet Pornography Consumption
1. average weekly Sexual Contacts	.00
2. average weekly Masturbation Occasions	.50***
3. previous sexual behavior	
a. first pornographic experience	-.14
b. first sexual intercourse	.02
c. number of lifetime sexual partners	.10
d. number of lifetime casual sexual partners	.10
e. condom use last sexual intercourse	.12
f. ever having transactional sex	.28***
g. ever having a sexually transmitted disease	.07
4. Sexual Permissiveness (adjusted means)	.59***
5. Sexual Satisfaction	.02
6. Relationship Satisfaction	-.13
7. Positive Outcome Expectancies	.22**
8. Negative Outcome Expectancies	.03

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

The correlations between sexual permissiveness and Internet Pornography Consumption; and between weekly masturbation occasions and Internet Pornography Consumption are especially notably, as these are remarkably statistically significant with high correlation coefficients. In particular, as solely sexual behavior increases, accordingly Internet Pornography Consumption increases. Idem applies to sexual permissiveness, as the more important permissive thoughts are valued, accordingly Internet Pornography Consumption increases. Concerning the remaining behavioral variables (1 and 3), the practice of transactional sex is weakly though significantly linked to Internet Pornography Consumption. This finding implies that concerning individual factors of previous sexual behavior, exclusively in case of having paid or received money for sexual services the value of weekly Internet Pornography Consumption increases. Pertaining to the remaining cognitive variables (5 to 8), the overall positive outcome expectancies of Internet Pornography Consumption are weakly linked to average weekly Internet Pornography Consumption. The other constructs are actually not significantly related to average weekly Internet Pornography Consumption with correlation coefficients nearby zero.

3.6 Regression Analysis

Different hierarchical regression analyses are performed to examine the relative explanatory contribution of different variables on weekly Internet Pornography Consumption. The tables display the standardized beta (β) coefficients, the level of statistical significance (p) and the adjusted explained variance (R^2).

3.6.1 Explaining Internet Pornography Consumption by means of antecedents

Table 13 presents the multiple regression analysis of antecedent concepts including gender on average weekly Internet Pornography Consumption of the German sample. The concepts concerning the motives of Internet Pornography Consumption are not included in the regression analysis, due to the exploratory character of the scale.

Table 13 Multiple regression analysis of significant correlated antecedents on average weekly Internet Pornography Consumption

	average weekly Internet Pornography Consumption ($n = 135$)	
	β	p
Gender	-.23	.03
Sexual Sensation Seeking	.04	.61
Attitude toward Pornography	.64	<.001
Compulsive IP Consumption	.01	.89
R^2	.27	

Note. * $p < .05$ ** $p < .01$ *** $p < .001$
 $F(4,131) = 13.18^{***}$

The constructs presumed to be antecedents of Internet Pornography Consumption account among the German sample for 27% of the variance in average weekly Internet Pornography Consumption. The attitude toward pornography and gender are significant determinants ($t = 5.40$, respectively $t = -2.21$). In consideration of this multivariate combination, the other concepts do not add explanatory value. Consequently, a more favorable attitude toward pornography and being male seem to explain the engagement in Internet Pornography Consumption among the young German sample.

3.6.2 Explaining Internet Pornography Consumption by means of consequences

Table 14 presents the multiple regression analysis of the consequences significantly correlated with Internet Pornography Consumption on average weekly Internet Pornography Consumption of the German sample.

Table 14 Multiple regression analysis of significant correlated consequences on average weekly Internet Pornography Consumption

	average weekly Internet Pornography Consumption (<i>n</i> = 127)	
	β	<i>p</i>
average weekly Masturbation Occasions	.39	<.001
experience of transactional sex	-.02	.77
Sexual Permissiveness	.39	<.001
Overall Positive Outcome Expectancies	.06	.43
<i>R</i> ²	.41	

Note. **p* < .05 ***p* < .01 ****p* < .001
 $F(4,122) = 22.46^{***}$

The regression analysis of significant correlated constructs presumed to be consequences of Internet Pornography Consumption account among the German sample for 41% of the variance in average weekly Internet Pornography Consumption. Taking into account that a multivariate relation is calculated, the score of average weekly masturbation occasions is a strong determinant ($t = 4.71$). Additionally, the adjusted sexual permissiveness add great explanatory value ($t = 4.61$). The other concepts do not represent proportions of the explained variance in the quantity of Internet Pornography Consumption.

4. Discussion

In the discussion, firstly the research questions are successively answered, thereby respecting the overall value of the processed concepts. In particular the valence of the concepts according to the four user-groups is explained, in consideration of moderating and mediating influences. Finally a complete evaluation of the current research is provided. Additionally in a distinct section, conditions appearing to be important in illustrating a profile of typical users (dependent on Internet Pornography Consumption quantity) are presented individually. Supplemental, again in an own section, antecedents and consequences that differ significantly according to gender are shortly illustrated, independent of user-group classification. In the second paragraph the limitations of the current research and recommendations concerning future research are specified.

4.1 Conclusion

The general prevalence rate of Internet Pornography Consumption among young adults in the current sample is 71%, this means nearly three-fourths of the Germans covering the age category from 18 to 35 years ever consumed Internet Pornography. To be specific, eight out of ten men (77%) and a fifth of the women (21%) consume Internet Pornography on a regular weekly basis. These prevalence levels, in terms of consuming Internet Pornography averaged on a weekly basis, are cautiously comparable with earlier detected rates in different European samples in the range of 12–48% among adult men and 3–37% among adult women. Accordingly, the young German males have a considerable higher frequency of Internet Pornography Consumption compared to findings in other developed countries; while the German females are located within the detected range.

In the current research, the generated quantity measure of weekly average Internet Pornography Consumption accounts on the one hand for the average frequency, but also for the average time of Internet Pornography Consumption. As expected, male-female differences are detected with respect to frequency, but additionally concerning time. This implies that men generally watch more frequent Internet Pornography; and it is indicated that the individual session lasts longer on average. As a result, it is found out that the German men consume per average week fifty minutes Internet Pornography, while women invest ten minutes. Hald and Malamuth (2008) detected in Denmark comparable average quantities, somewhat higher with eighty minutes for males and twenty minutes for females per week. Pertaining to average consumption quantities in the created user-groups, more differentiated

findings are illustrated. It is obvious that low users consume Internet Pornography very sporadic, once in two months respectively on average less than one minute per week. Moderate users are per week fifteen minutes concerned with Internet Pornography and high users little less than two hours.

The decision to distinguish the German sample in four groups on the basis of Internet Pornography Consumption quantity (as measured by time and frequency) is justified. Due to the classification, characteristics especially dependent on low, moderate and high average weekly Internet Pornography Consumption are identified. A deeper insight is given in respect of threshold effects concerning several factors associated with Internet Pornography Consumption. More precisely, a threshold effect describes a point at which a stimulus is of sufficient intensity to begin to produce an effect; therefore differences can become just apparent in particular among non-users compared to users or between low, moderate or high levels of Internet Pornography Consumption. For instance, several researches emphasized that frequent users of Internet Pornography have an outstanding role (Carroll et al., 2008; Wetterneck et al., 2012; Svedin et al., 2011). Consequently, the classification can clarify important variables in attempting to obtain a picture of a typical Internet Pornography consumer dependent on quantity.

Several demographic factors are assessed by reasons of a potential connection to Internet Pornography Consumption. As most researches to date could not discover links of age, level of education, daily occupation or sexual orientation and Internet Pornography Consumption, similarly, definitive connections are not discovered in this investigation. However, pertaining to age a slight tendency is observable that grown-up individuals, older than 18 and younger than 25 years, consume Internet Pornography more frequent. Yet, although an appropriate age distribution is obtained in the sample, significant differences in the user-groups according to age are not detected. Regarding level of education, daily occupation and sexual orientation, a comparable distribution as in the general German population is noticeable, though the sample seems to be marginally higher educated (Statistisches Bundesamt, 2010). Anyway, associations of these variables with the quantity of Internet Pornography Consumption are not verifiable, meaning these demographic characteristics are obviously not influencing the Internet Pornography Consumption of the German sample. In consideration of the demographic information concerning marital and relationship status, the allocation in the sample seems representative in reference to German figures (Statistisches Bundesamt, 2011b). Most of the young Germans in this sample are not married until now, this seems normal as the average marriage age of Germans in 2011 was 32

years. Though, roughly two thirds living in steady relationships with a considerable average duration of four years. An important difference according to user-group classification is detected, given that in the high user-group fewer individuals are in an intimate relationship than in the low user-group; this connection is not linear and thus only detected due to user-group classification. This finding is especially interesting regarding additionally the solely sexual behavior of the German individuals in the high user-group; and will be emphasized in the course of the discussion.

Another demographic variable that plays a crucial role in explaining Internet Pornography Consumption is gender; this is especially emphasized scrutinizing the prevalence rates and male-female differences in average weekly Internet Pornography Consumption quantity. As expected and noted earlier, it is evident that men generally consume more sexually explicit material than women, both measured by time and frequency. This finding is underscored regarding the differences in the created user-groups, as the non- and low user-groups consists of clearly more female than male respondents and the moderate and high user-groups contrary consists of considerable more males than females, indicating a linear relationship. Moreover, within several constructs considerable moderating and mediating effects according to gender are verified; both among antecedents and consequences of Internet Pornography Consumption. As already explained in the introduction, findings concerning male-female differences are a recurrent theme.

In answer to the third research question, subsequently the relation between factors presumed to be antecedents and average weekly Internet Pornography Consumption is discussed. Considering all concepts in a multivariate relational analysis with Internet Pornography Consumption, the attitude toward pornography and gender add explanatory quality concerning the average weekly Internet Pornography Consumption in the German sample (27%). Contrary to the expectation, although a direct correlation of sexual sensation seeking with Internet Pornography Consumption is discovered, this concept has no explanatory value in a multivariate equation. Analogical, compulsive Internet Pornography Consumption explains in direct association a slight proportion of variation, but the explanatory quality regarding the overall influence of all four antecedent factors together is not substantial. In other words, a favorable attitude toward pornography and being male is in the current research found to impact the onset and perpetuation of Internet Pornography Consumption.

Furthermore, as expected, an overall importance of the concepts sexual sensation seeking, attitude toward pornography and the existence of compulsive Internet Pornography

Consumption tendencies are verified in the investigation of antecedents of Internet Pornography Consumption. In general, the German respondents have a pronounced favorable attitude toward pornography, and as the favorability regarding this material increases, the Internet Pornography Consumption quantity steadily increases. This is controlled for male gender, as especially males are more prone to high Internet Pornography Consumption due to higher values of attitude toward pornography. Regarding both sensation seeking constructs, it is detected that sexual sensation seeking illustrates a more advanced view than general sensation seeking exploring Internet Pornography Consumption. Although both constructs show increasing tendencies according to user-groups, as assumed sexual sensation seeking offers a more distinct differentiation in relation to the topic Internet Pornography Consumption. Generally, German individuals do not exhibit high tendencies to search out arousing and exciting sexual experiences. Non- and low users hardly answer affirmative that physical satisfaction is most important in exploring sexuality; moderate and high users report a low propensity to search exciting sexual experiences. A roughly linear connection is obvious, the higher the characteristic of sexual sensation seeking, the more frequent Internet Pornography is consumed (cf. Brown & L'Engle, 2009). Moreover, on the first gaze there are no alarming levels of compulsive Internet Pornography Consumption detectable in the German sample. In none of the user-groups a definitive inability to stop or a generalized obsession with Internet Pornography Consumption is discovered. Though, the differences between the groups are remarkable, as three-fourths of individuals with higher compulsive tendencies are in the high user-group. The considerably few compulsive patterns are advantageously, as excessive use could have extensive consequences regarding individual's health and consequently on a societal level. Anyway, this finding has to be investigated more detailed in further research, as a selection bias due to sampling procedure is possible; this will be discussed in the section concerning limitations of the current research.

In summary, the theoretical assumption that these four concepts are important antecedents of Internet Pornography Consumption is partly confirmed. Although the explanation of the average weekly Internet Pornography Consumption by means of multivariate relation is marginally (as 27% is a small explained proportion), all of these concepts are considerably associated with Internet Pornography Consumption quantity. Sexual sensation seeking is still anticipated to impact the onset of Internet Pornography Consumption, though not statistically verified. Regarding compulsive patterns, the allocation to antecedents is based on logical considerations, as a compulsive use is definitely practiced with high quantity that in turn influences proceeding consumption. Consequently, this

construct is not useable in explaining the onset, but the maintenance of Internet Pornography Consumption. Yet, a favorable attitude toward pornography is clearly identified to be essential in the initiation of Internet Pornography Consumption. Furthermore, being a man apparently increases the likelihood to become a regular consumer of Internet Pornography.

Additionally, regarding another concept associated with Internet Pornography Consumption, an exploratory measure of cognitive and affective motives of Internet Pornography Consumption is introduced. In terms of motivational aspects, searching for sexually explicit material on the Internet is an intentional and purposeful behavior due to an anticipated outcome. The development and perpetuation of these motives is dependent on and reinforced by Internet Pornography Consumption quantity. Positive affective and evaluative responses to stimuli found in Internet Pornography will strengthen the future likelihood of further contact with similar sexual stimuli and the future likelihood of similar affective and evaluative responses, thus a continuously reinforcing process takes place. In contrast, perceived negative affective and evaluative responses to particular kinds of sexual stimuli in Internet Pornography will condition future avoidance of that kind of sexual stimulation (cf. Fisher & Barak, 2001). Generally, it is pointed out that the Germans ascribe different valence to their reasons for Internet Pornography Consumption. In particular, the most important motives to be involved with Internet Pornography Consumption are the cognitive aspects termed sexual arousal and curiosity, and education and inspiration, followed by stress release and distraction. Only a small part (10%) of the German sample prefers to consume Internet Pornography together with their steady partner, therefore it is understandable that the motive improvement of relation, in terms of using sexually explicit material together with the partner, is not valued very important (cf. Boies, 2002; Goodson et al., 2000; Lam & Chan, 2007). Though, it has to be noted that using Internet Pornography due to educational reasons and to find inspiration is assumed to indirectly impact relationships as well. Regarding affective aspects, satisfaction is clearly a crucial motive. Both feelings of guilt and shame respectively disgust and depressions are almost nonexistent, emphasizing that the German sample generally has positive feelings regarding Internet Pornography. Moreover, the groups separated on the basis of consumption quantity differ in the importance they ascribe to the different functions. The low user-group has lower values than moderate and high users regarding all cognitive aspects and the affective aspect satisfaction; implying a threshold effect between sporadic and regular consumption. This finding indicates that the motives are reinforced and strengthen only through regular consumption and in turn affect the continuation of Internet Pornography Consumption. The factors guilt and disgust are not

affected by consumption patterns, possibly because these aspects are in the current sample simply not important in the decision to consume Internet Pornography. Concluding, the suddenly increasing scores let assume that a regular weekly consumption, as given in moderate and high user-groups, causes a higher overall involvement with Internet Pornography on a cognitive and an affective basis. Summarized, according to the expectation the new measurement instrument has made a valuable contribution to the explanation of Internet Pornography Consumption in associational terms. In any case, the scale has to be refined; in particular aspects in terms of positive affect are interesting issues of future research.

Answering research question four and five combined, hence pertaining to relations between concepts presumed to be consequences and average weekly Internet Pornography Consumption; several significant associations are pointed out. To be specific, average weekly Internet Pornography Consumption is associated with the average weekly masturbation occasions, the occurrence of transactional sex, sexual permissiveness and the expected likelihood that Internet Pornography Consumption has positive outcomes. Considering these concepts in a multivariate relational analysis with Internet Pornography Consumption, both masturbation occasions and sexual permissiveness add quality in explaining the average weekly Internet Pornography Consumption in the German sample (41%). Contrary to the expectation, although direct correlations of the remaining concepts with Internet Pornography Consumption are discovered, those do not have explanatory value in a multivariate equation.

The general value of behavioral concepts presumed to be consequences, and the differences of these concepts according to user-groups, are subsequently discussed. Regarding interpersonal sexual behavior in Germany, average weekly sexual contacts are against expectation not related to Internet Pornography Consumption. However, it is detected that individuals in a steady relationship have considerable more frequent sexual intercourse than singles (1.5 times more per week). To be specific, in the whole sample the average frequency is two sexual contacts per week, though the respondents in a steady relationship have more than twice times sexual intercourse per week compared to less than once per week for singles. A scientific nationwide study initiated by a condom producer indicates that individuals in the German population have on average little more than two times sexual intercourse per week (Durex, 2009), this implies that the young adults in this sample have on average somewhat fewer sexual contacts than the German population.

As expected, solely sexual behavior is strongly connected to Internet Pornography; this means that most young German adults masturbate while watching Internet Pornography

(cf. Hald, 2006; Boies, 2002). Moreover essential differences according to user-groups are detected concerning solely sexual behavior. High users masturbate on average more than four times per week, this implies that they masturbate four times more often than non- and low users and still more than twice as much as moderate users. Regarding statistics in Germany (age ranges from 20 to 35 years), roughly one out of ten masturbate more frequent than four times per week. Consequently, the value obtained in the high user-group is striking and can explicitly be ascribed to a high Internet Pornography Consumption (Statista, 2012). Pertaining to mode of Internet Pornography Consumption, it is as anticipated overwhelmingly a solely activity. One out of ten persons prefers to consume Internet Pornography Consumption alone, only few individuals prefer consuming Internet Pornography Consumption together with their intimate partner or within a group (cf. Boies, 2002; Haavio-Mannila & Kontula, 2003).

In conclusion, Internet Pornography Consumption basically impacts masturbation behavior, as it primarily used in a solely context for masturbation purposes. This certainty is most likely part of the explanation for the lack of influence on interpersonal behavior. Due to the fact that Internet Pornography Consumption is preferential a solely activity, interpersonal sexual behavior is not impacted by Internet Pornography Consumption. Anyway, moreover it is required to take the relationship status into account. Although in the current sample only tendencies are recognizable, the assumption is likely that masturbation occasions get fewer and Internet Pornography Consumption decreases due to a belonging to an intimate partner. In this sample, it is verified that individuals in a stable relationship have more sexual contacts than singles, independent of Internet Pornography Consumption. Consequently, more sexual intercourse due to an intimate relationship can elicit a decrease of masturbation behavior and therefore has influence on Internet Pornography Consumption quantity. Furthermore male-female differences have to be considered, as males generally masturbate more often than females, and especially males without relationship masturbate very often while watching a high amount of Internet Pornography. Contrary to that, women in a relationship consuming a high quantity of Internet Pornography masturbate considerable more often, presumably relationally based. It has to be noted that the last-mentioned finding has to be taken with caution, as only a small proportion of the females of the whole sample are high users in a relationship. Thus, masturbation behavior is directly impacted by Internet Pornography Consumption, and along general lines, being a man and being not in a relationship, it becomes more likely to use Internet Pornography with a higher quantity. Interpersonal sexual behavior is presumably indirectly impacted by Internet Pornography Consumption, as being in a relationship results in more sexual intercourse, in turn less masturbation occasions and

consequently fewer Internet Pornography Consumption. Additionally, in the current sample the first pornographic consumption is earlier than the initiation of sexual behavior (for moderate and high users with a time difference of one and a half year) therefore it is assumed that an influence of Internet Pornography Consumption on general sexual behavior cannot be ruled out.

Considering individual factors of previous unhealthy sexual behaviors, that can promote, maintain or be strengthened by Internet Pornography Consumption, in the overall sample a notable experience with transactional sex and sexually transmitted disease is detected, especially for high users. These events are generally seen as indicators of sexual risk behavior, presumed to contribute to continuative risky sexual behavior. A particular risk behavior indicator is the non-use of protection by means of condom. In the current sample, the protection behavior is influenced by relationship status, but does not depend on user-groups. Moreover a high number of lifetime sexual partners, especially casual sexual partners, are an indicator of unhealthy sexual behavior, and again high users are concerned and had the most sexual partners. Although differences are not detectable between all groups, a tendency that a higher Internet Pornography Consumption is associated with a rising number of partners is assumed and has to be addressed in further research. Nevertheless, there are researchers who termed 'more than eight lifetime partner' as sexual risk behavior (Hald, 2006); in that context it is interesting to point out that the German Internet Pornography users on average had at least nine partners, high users even more than twelve.

At this point it has to be illustrated that sexual behavior, especially unhealthy behavior, may not only be a consequence of exposure, but also an antecedent, as above mentioned findings underline a possible bidirectional influence of pornography consumption and sexual behavior. On the one hand, this means that individuals who have engaged in sexual risk behavior may be more likely to use Internet Pornography, as this material may reflect their sexual preferences better than other sexual media content. On the other hand, this implies that unhealthy sexual behavior may be encouraged through Internet Pornography Consumption (cf. Peter & Valkenburg, 2009). The current research supports the notion that both solely and interpersonal sexual behavior are to a great extent influenced by Internet Pornography Consumption, by instance the findings focusing on the number of sexual partners, previous unhealthy sexual behavior and first exposure to pornographic material leads to the assumption that risky sexual behavior can be encouraged through high Internet Pornography Consumption.

Following the cognitive concepts presumed to be consequences are discussed

concerning differences in behavior according to user-groups. As anticipated, with rising Internet Pornography Consumption there is an increase in sexual permissive thoughts (cf. Braun-Courville & Rojas, 2009). On average, the individuals in the high user-group agreed to most of the individual statements in contrast to individuals in the three other groups. Hence, there is a mediating influence of gender; men are generally more prone to sexual permissive thoughts. Contrary to the expectation, neither relationship satisfaction nor sexual satisfaction is positively or negatively associated with Internet Pornography Consumption and these constructs does not differ according to classified user-groups. A sensible Internet Pornography Consumption is supposed to have beneficial impact on relationship and sexual gratification, and a higher frequency of Internet Pornography Consumption is associated with decreased relationship and sexual satisfaction, but both possibilities are not supported in the current research. In this research, average weekly sexual contacts (as earlier mentioned) and sexual satisfaction are dependent on relationship status; individuals in a steady relationship have more frequent sexual intercourse and are more satisfied with their sex lives, illustrating that sexual satisfaction is associated with sexual frequency (Christopher & Sprecher, 2000). Consequently, those partners having the most frequent sex are the most sexually satisfied (cf. Greeley, 1991).

With respect to positive and negative outcome expectancies of Internet Pornography Consumption, a general tendency of ascribing more perceived positive than negative effects to Internet Pornography Consumption is detected. This implies that the German individuals have a clear belief about the likelihood of Internet Pornography Consumption leading to more positive than negative outcomes. It is noteworthy that differences according to users groups are only found between low users compared to moderate and high users. This finding indicates a threshold effect between sporadic and regular consumption, equally to the construct motives of Internet Pornography Consumption. It is assumed that a regular weekly consumption, as given in moderate and high user-groups, causes a higher overall involvement with Internet Pornography. Hence, presumably the individuals begin to reinforce and strengthen their positive outcome expectancies not before consumption on a regular basis takes place, resulting in more distinct expected likelihoods of effects and in turn affecting the perpetuation of Internet Pornography Consumption. This assumption applies to negative outcome expectancies as well, yet the threshold effect is even more pronounced, as moderate and high users have nearly identical scores compared to lower scores of low users. The stagnating scores indicate that possible negative outcome expectancies remain on a particular valence level, as a higher negative expectation presumably will interfere with the likelihood

of anticipated positive outcomes and leading to an adjustment in Internet Pornography quantity. In conclusion, regarding overall positive outcome expectancies, the more frequent Internet Pornography is consumed the more certainly the estimate that this consumption leads to positive effects. The findings in this German sample of young adults are comparable to the research in Denmark. Hald and Malamuth (2008) discovered a correlation between the perceived positive effects of pornography with more frequent pornography consumption. In contrast to the current research, they also detected significant correlations of the anticipated negative effects with greater amount of pornography consumption, though these correlations were of considerably lower magnitude.

Considering all consequences in conjunction, the theoretical assumption that both solely and interpersonal sexual behavior are a consequence of Internet Pornography Consumption is not clearly confirmed. Considering influences of relationship status and gender, a circular cause and effect relationship is also possible, thereby regarding the strong connection of Internet Pornography Consumption and masturbation behavior as central issue. The theoretical assumption that the chosen cognitive concepts are important consequences of Internet Pornography Consumption applies only to sexual permissiveness. The positive and negative outcome expectancies can be used to explain the perpetuation of Internet Pornography Consumption, but are limited useful in determining clear-cut consequences of Internet Pornography Consumption.

Summarized, masturbation occasions and sexual permissiveness are found to be crucial in investigating Internet Pornography Consumption. The multivariate relation explains a medium-sized proportion of variance in average weekly Internet Pornography Consumption and above all most of the concepts presumed to be consequences are considerably associated with Internet Pornography Consumption quantity. Regarding interpersonal sexual behavior, the justification of allocating sexual contacts to consequences is not completely verified and has to be addressed in further research. Yet, a higher amount of masturbation occasions and being more sexually permissive is clearly identified to be impacted by a higher Internet Pornography Consumption quantity, while relationship and sexual satisfaction are not uniquely influenced.

In short, the division of the concepts in antecedents and consequences is helpful during the research-process. Though, it has to be emphasized that the antecedents are not exclusively focusing on the onset of Internet Pornography Consumption, but on the maintenance of this behavior. As expected, the conditions gender and attitude and presumably sexual sensation seeking are impacting the onset, while compulsive consumption, motives of consumption and

additionally the outcome expectancies are associated with the perpetuation of Internet Pornography Consumption. Thus, the similar patterns discovered for outcome expectancies and motives of Internet Pornography Consumption leads to the conclusion that these has to be adjusted. Regarding consequences, the circular character of cause and effect concerning sexual behavior has to be scrutinized in further research; accordingly, it should be attempted to develop distinct measures of sexual permissive thought and sexual permissive behavior.

Pertaining to a general evaluation of the current research, it is evidenced that Internet Pornography Consumption quantity has advantageous and to a small extent disadvantageous effects on the individual health and interpersonal health behavior of young German adults. To be specific, there are individual cases discovered of excessive use, but clearly no compulsive or addictive tendencies. This is an important finding as these characteristics in combination could lead to immense individual and societal problems. Moreover, a small proportion of Internet Pornography consumers, especially high users, exhibit sexual risk behavior and a high proportion of sexual permissiveness. These patterns are disadvantageous and should be kept in mind in the investigation and therapy of problematic sexual behavior and problematic Internet Pornography Consumption. However, generally the young German adults seem to have an adequate handling of Internet Pornography Consumption. Clearly more positive than negative effects of Internet Pornography are perceived, respectively the absence of negative effects is observable. There is neither negative impact on sexual and relationship satisfaction; nor emotional conditions are influenced negatively. A favorable attitude is the most important concept in identifying the onset of Internet Pornography Consumption, additionally gender plays a role. Regarding the perpetuation of Internet Pornography Consumption, strong cognitive motives, beneficial affective motives and positive outcome expectancies act in a reinforcing way. Moreover, in most instances Internet Pornography Consumption is simply integrated in masturbatory behavior; the individuals use it to be educated, aroused and inspired, to become good feelings and for sexual gratification. Most German individuals seem to have an adequate handling of masturbation behavior, in terms of determining themselves a beneficial frequency of weekly masturbation occasions.

Summarized, it is relatively simple: as long as other areas of life are not negatively impacted by Internet Pornography Consumption and the resultant masturbatory behavior, these behaviors do not cause problems. Internet Pornography Consumption has clearly more beneficial than harmful consequences, if it is used responsible and competently. The current investigation makes a valuable contribution to determine behavioral, cognitive and affective

characteristics of Internet Pornography consumers. Additionally, deeper insight into the concepts that underlie and maintain Internet Pornography Consumption is given; and the concepts positively or negatively impacting the German population in the chosen age category are identified.

4.1.1 Attempt to profile a typical Internet Pornography consumer

Generally, most of the examined constructs are relevant attempting to profile a typical consumer of Internet Pornography, due to differences found in affective, cognitive and behavioral concepts according to user-group classification. During the course of this master thesis and in earlier researches it became apparent that especially individuals who use Internet Pornography in a high quantity compared to other user-groups differ considerable; and individuals who do not use Internet Pornography compared to users have particular characteristics. Therefore, the profiling of a typical high consumer can potentially serve as aid in the identification of high users, as factors related to this special group are associated with emotions and cognitions leading to unhealthy sexual behavior and can cause consequently problems in individual's life. Furthermore, the detected differences in non-users compared to users can possibly be helpful to emphasize especially the positive and negative effects of Internet Pornography Consumption, because non-users are neither influenced of negative outcomes, nor do they benefit from positive outcomes. It has to be noted that the subsequent findings have to be interpreted with caution and further research is necessary to illustrate comprehensive pictures.

Returning the average consumption rates in the different user-groups to mind, non-users do not consume Internet Pornography at all, low use implies sporadically consumption once in two month; the moderate users are fifteen minutes per week concerned and high users consume Internet Pornography nearly two hours on a weekly basis. As mentioned above, differences in most demographic characteristics according to user-groups are not found. As the total sample seems to be at a rough estimate an acceptable representation of the German population, these factors are not influencing or maintaining Internet Pornography Consumption. The relationship status should always be taken into account, on the one hand because Internet Pornography Consumption is overwhelmingly used for masturbation purposes, and it seems that being in a relation can affect the frequency of masturbation occasions due to more frequent sexual intercourse. On the other hand, non-use of Internet Pornography Consumption naturally cannot exert influence on a relationship, but high use can, so both positive and negative consequences can arise. For instance, an increment in

sexual knowledge or arousal due to educational or exciting purposes would be advantageously. Anyway, as sexual gratification only takes place through Internet Pornography Consumption, consequently less intimacy can take place which in turn is assumed to decrease relationship and sexual satisfaction. Though, being or not being in an intimate relationship is not a reliable sign in profiling typical users. With regard to gender, along general lines men consume clearly more Internet Pornography on average than women, this implies that being female would be a typical characteristic of a non- or low user, in contrast being male would be a typical characteristic of high user. In consideration of antecedents, understandably, if the attitude toward pornography is throughout unfavorable, Internet Pornography is not consumed. Hence, the attitude is a profiling aid in distinguishing non-users from users. In consideration of sexual sensation seeking, a distinct propensity to search out arousing and exciting sexual experiences is associated with a high Internet Pornography Consumption. In case the personality trait to seek out novel sexual stimulation is less pronounced, it is assumed to be associated with little or none Internet Pornography Consumption. Partly this applies to compulsive Internet Pornography Consumption patterns as well, no or extremely few signs of compulsivity imply non-use or sporadically use. Though, not even excessive consumption in connection with addictive characteristics can be seen as sign for a typical high user. It has to be emphasized that high users are not automatically compulsive or rather addictive users. As explained earlier, to raise the topic of compulsive Internet Pornography Consumption six core components of addiction have to be present, by name salience, mood modification, tolerance, withdrawal, conflict and relapse. It seems obvious that especially salience and tolerance have to be present in excessive users, as 5% of the current sample consume on average more than two hours per week; one individual displayed with ten hours per week the maximum of average weekly Internet Pornography Consumption in this sample. However, among young German adults addictive respectively compulsive tendencies are rarely absent. The exploratory measure concerning cognitive motives of Internet Pornography Consumption and the affective motive satisfaction revealed that the low user-group has lower scores on all motives than the moderate and high user-groups; this suggests that being generally concerned with Internet Pornography on a regular basis is of importance. To be specific, it is apparent as the evaluation of a positive experience results in a more favorable reaction, this reinforces the continuation of Internet Pornography Consumption and in turn increases the valence of the motive. Anyway, due to the exploratory character of this scale, further research is advisable to specify expected affective and cognitive functions that are assumed to be realized through consumption. Regarding the

attempt of profiling, cautious it can be said that the cognitive aspects arousal, education and stress release and the affective aspect satisfaction are present in a typical high user of Internet Pornography.

In consideration of behavioral concepts presumed to be influenced by Internet Pornography Consumption, the masturbation behavior is extremely frequent for high users. Moreover, a considerable threshold effect takes place, as high users masturbate more as twice as often as the other user-groups or non-users. This finding emphasizes that the typical behavioral consequence of consuming Internet Pornography is masturbation, especially for individuals in the high user-group. Furthermore, high users of Internet Pornography in the German sample have displayed more high risk behaviors in their previous sexual behavior than individuals in the non-user group. Frequent consumers of Internet Pornography have a higher number of lifetime sexual partners, both overall and casual sexual partners, more often transactional sex and more often an episode of a sexually transmitted disease. These are high risk behaviors that can result in mentionable health problems. Accordingly, non-users display considerable fewer high risk behaviors. Another indicator of a typical high consumer is an early initiation of Internet Pornography Consumption, roughly speaking as individuals begin before their 15th birthday. Considering cognitive concepts assumed to be affected by Internet Pornography Consumption, a pronounced acceptance of sexual permissiveness is clearly a typical characteristic of a high consumer, as this is additionally clarified regarding above explained behavioral distinctiveness. Therefore, higher levels of acceptance of casual sexual behavior are also associated with a higher numbers of overall and casual sexual partners across the lifespan. Regarding overall outcome expectancies, a similar picture is illustrated as regarding the motives of Internet Pornography Consumption. If an overall involvement with Internet Pornography Consumption on a regular basis is given, the estimate that Internet Pornography Consumption yields a positive outcome is reinforced; in turn increasing and at a certain value maintaining the Internet Pornography Consumption. Moreover it seems that some negative outcome expectancies may be present, but may not exceed a certain value. Although, concerning typical high users, the likelihood of a positive outcome has to be definitely higher than the likelihood of a negative outcome.

Summarized, high users have an outstanding role in investigating Internet Pornography Consumption. Additionally, through studying non-users in comparison to users valuable assumptions regarding a typical user respectively non-user can be made. It is noteworthy that a high or excessive use is not a warrantor for subsequent psychological disorder which leads to immense individual and societal problems (cf. Griffiths, 1996).

Anyway, especially high users seem to be more prone to negative consequences of Internet Pornography Consumption, as they engage in continuously intensifying Internet Pornography Consumption (cf. Carroll et al., 2008; Svedin et al., 2011)

4.1.2 Differences in concepts according to gender

As expected, regarding differences of the concepts according to gender but independent of user-group classification, most of the obtained concepts differ significantly within the meaning that men score higher than women. This is evidenced for overall consumption, as men consume more sexually explicit material than women, both measured by time and frequency (cf. Carroll et al., 2008; Cooper et al., 2002; Goodson et al., 2001; Hald, 2006; Lo & Wei, 2005; Morgan, 2011; Peter & Valkenburg, 2006; Svedin et al., 2011; Træen et al., 2006; Wolak et al., 2007). According to the expectation, men have more favorable attitudes toward pornography (cf. Brown & L'Engle, 2009; Hendrick, Hendrick, & Reich, 2006; Lam & Chan, 2007; Lo & Wei, 2002) and generally exhibit higher levels of sensation seeking (cf. Zuckerman, 1994) than females, while levels of sexual sensation seeking are even more pronounced. Moreover, men display higher scores concerning compulsive Internet Pornography Consumption, though prevalence rates for this phenomenon are not clearly identified, this finding is not surprising due to higher overall consumption quantity. Regarding the cognitive motives, males report as anticipated higher levels of sexual arousal from sexually explicit material than females (cf. Cooper et al., 2002; Goodson et al., 2001) and additionally a higher valence of an educational aspect, a stress releasing function and less overall indifference. Furthermore the expectation that men indicate more positive feelings about Internet Pornography is met, as the higher scores on the affective motivational aspect satisfaction evidence (cf. Brown & L'Engle, 2009; Carroll et al., 2008; Haggstrom-Nordin et al., 2005). In consideration of solely sexual behavior, men masturbate nearly twice per week more often than women, thus Internet Pornography serves for men clearly more often as masturbatory aid (cf. Boies, 2002; Paul & Shim, 2008). Anyway, a significant interaction between the four groups and gender is established for the quantity of masturbation occasions, as women in the high user-group masturbate once per week more often than men and in the non-user-group men masturbate five times more frequent than women. Pertaining to the contexts within which individuals consume Internet Pornography, the majority of men prefer to consume Internet pornography alone, in contrast to several women (anyway, still the minority) who prefer to consume Internet Pornography relationally based (Goodson et al., 2001; Hald, 2006). An interesting interaction effect is established concerning the motive

improvement of relation that mirrors this finding; as women in the high user-group consume Internet Pornography clearly more often due to relationship improvement than females in the low and moderate group and male users at all. Although men are not explicitly assumed to have a higher number of overall and casual lifetime sexual partners, the German men in the sample had both three overall and casual lifetime sexual partners more than women. This seems to be due to a greater likelihood of engaging in sexually (permissive) behavior and more sexual experience (cf. Carroll et al., 2008; Morgan, 2011; Morrison et al., 2004; Peter & Valkenburg, 2008). The same applies to high risks behaviors, though not anticipated, men had on average more often transactional sex and were more often diagnosed with a sexually transmitted disease than women. Above all, men are clearly more prone to sexual permissiveness than women (Carroll et al., 2008). Closing, men reported clearly higher overall positive outcome expectancies than women.

Taking the content of sexually explicit material into account, it is arguable to what extent the sexual acts portrayed are in accordance with sexual preferences of men and women. In general, researchers agree that pornography, while depicting people actually engaging in sexual acts, often portrays an unrealistic picture of sexuality including unrealistic standards of sexual performance as it is practiced in real life (Paul, 2005). The dominant theme of unaffectionate, physical sexual intercourse between casual connected individuals is often depicted, whereby the male actor often dominates the situation and females are throughout compliant and aroused (Jensen & Dines, 1998; Zillman, 2000). This implies a concomitant female objectification; women are reduced to their sexual appeal in terms of their outer appearance (Albright, 2008; Barak, Fisher, Belfry, & Lashambe, 1999). To be specific, a content analysis of popular movies revealed that female-to-male oral sex was the most frequent appearing activity (90% of the scenes coded), while male-to-female oral sex occurred in only half of the scenes coded. Vaginal intercourse was the second-most frequent sexual act (86% of the scenes) and anal sex appeared still in more scenes than male-to-female oral sex. Portrayals of sexual activities between characters of the same gender occurred only for women (Bridges et al. 2010; Grudzen et al., 2009). Summarized, a more physical, pleasure-oriented approach to sexuality is illustrated that seems to be more suitable for male's sexual preferences, because females are ascribed a rather relational, emotional, and person-oriented approach to sexuality (Bowleg, Lucas, & Tschann, 2004; Peter & Valkenburg, 2008).

Anyway, the providers offer meanwhile such a broad spectrum that women have the possibility to look about their own preferences and consequently chose material that enhances their sexual arousal. In sum, although the attitudinal, cognitive and behavioral tendencies of

men seem to correspond better with the characteristics of sexually explicit material than those of women (Lam & Chan, 2007) the advances of the Internet have not only immense effect on men, but also on women, in terms of getting free and always available exactly that kind of Internet Pornography they prefer. Consequently, the lack of interactions of gender and quantity of Pornography Consumption in examining different concepts is noticeable. Obviously, men score higher on several construct, but anyway this is not dependent on consumption quantity. Hence, no gender-specific reaction is verified, solely the valence of the investigated constructs seems to be higher for males than for females.

4.2 Limitations and Recommendations

A limitation regarding this research is generally related to measures of Internet Pornography Consumption and sexual behavior, as these are sensitive and highly intimate topics. The current results strengthen the assumption that self-reported behaviors are accurate reflections of individuals' actions and thoughts. Nevertheless, it is reasonable to expect that the accuracy of self-reports can vary (Albarracín et al., 2001). It is possible that the respondents did not answer all questions truthfully, or they made social desirable declarations, especially regarding the sensitive context. Although effort is done to avoid social desirable answers through assuring anonymity, it is possible that the actual given answers have not been in accordance with the real behavior. Anyway, for sensitive issues, online surveys have been shown to be superior to other survey modes (Mustanski, 2001).

An accessory finding in the current research is that of 231 persons who initially began to work on the questionnaire, 33 persons stopped at different stadia. This denotes a dropout rate of 37%; assumed reasons are a lack of interest or lack of time. It is especially noteworthy that of those individuals twenty-one are male and only twelve are female. Concerning this, a research detected that in surveys on sensitive issues gender and age generally affect the willingness to participate and respond (Ross, Daneback, Mansson, Tikkanen, & Cooper, 2003), in particular men and younger individuals drop out more frequent.

Furthermore the number of respondents is a shortcoming in the current research; it is not possible to generalize to the whole German population in the age group of 18 to 35 year, though the distribution of demographic characteristics is adequate. Moreover, especially regarding age slight differences are possibly not traced due to the small sample size. According to Arnett (1994) the time span named emerging adulthood (18-25 years) is particularly important in exploring sexuality, hence connected to a higher likelihood displaying sexual risk behavior and possible a higher frequency of Internet Pornography

Consumption. A direction for future research is a more careful investigation of age (in terms of building clearly defined age categories in a larger sample), considering the fact that particular factors of previous disadvantageous sexual behavior are associated with Internet Pornography Consumption, while not dependent on age in the current research.

Another limitation is the possibility that due to sampling procedure a selection bias occurred, as a complete randomization of the sample could not take place. This bias addresses both the internal validity concerning differences or similarities found in the sample according to Internet Pornography Consumption quantity, and the external validity, thus the generalizability to the German population in the chosen age category. This selection bias possibly results in over- or underestimation of general prevalence rates and the levels of compulsive Internet Pornography consumers.

By reason of limited research conducted concerning the topic Internet Pornography Consumption, especially in Germany, this should be one of the connections to future studies. Consequently, efforts should be made to develop more comprehensive measures of Internet Pornography Consumption that have psychometric properties. These questionnaires need to have standard operational definitions, measurements of positive and negative related concepts, and measurements of form and function of Internet Pornography Consumption. The innovative measurement method of Internet Pornography Consumption quantity in the current research is already a good possibility to receive scores that are comparable regarding international researches, as an unrestrained frequency measure is used (without researcher generated intervals) and time in minutes.

Moreover studies focusing especially on content of Internet Pornography have to be conducted, as studies covering this topic are rare. Anyway, as a simple look at typical servers containing sexually explicit material verifies, the term Internet Pornography covers a tremendous broad spectrum of different material, reaching completeness seems impossible. In that respect, a connection to sexual preferences could be advantageous to classify Internet Pornography Consumption in a broad sense (Stuhlhofer et al., 2010; Morgan, 2011).

Although the current cross-sectional design provides a valuable contribution in investigating concepts associated with Internet Pornography Consumption, experimental research and longitudinal studies are besides directions for future research. That way changes in Internet Pornography perceptions over time could be investigated and consequently possibly causal relations between Internet Pornography Consumption and a range of factors could be ascertained. Further experimental research is important because analyses of data from non-experimental designs always run the risk of omitted variable bias, though carefully

controlled in the current research.

In consideration of an association of psychosocial wellbeing and Internet Pornography Consumption, at the beginning of the current research several investigations have been reviewed to identify variables focusing on the affective respectively emotional condition of the individual after viewing Internet Pornography. These studies illustrate that there is range of factors concerning psychosocial wellbeing, to be specific feelings of discomfort, emotional distress, fear, loneliness and shyness, sexual anxiety and sexual fear. Further psychological health variables are depression and self-esteem (Cooper, 1998; Quayle & Taylor, 2006, Morrison et al., 2004; Svedin et al., 2011; Meeker et al., 2006, Caplan, 2002). Nevertheless, in most instances the researchers agreed that these variables are strongly related to excessive viewing of Internet Pornography as well as other forms of problematic Internet use. Those concepts therefore seem to interfere with the wellbeing of the individual, but in most cases specifically concerning addictive and compulsive tendencies (or especially in nondeviant populations). Moreover, mostly the researchers are focusing on developmental problems of older children or adolescents in connection to Internet Pornography Consumption. Though the current research tapped patterns of compulsive Internet Pornography Consumption, and additionally affective motives of Internet Pornography, an exhaustive engagement regarding these issues lies beyond the scope of the current investigation. For sure, psychosocial wellbeing is an interesting and valuable topic for future research.

Concluding, as Internet Pornography Consumption can have negative impact on individual's health and health behavior, it can also exert disadvantageous impact on society (e.g. impairments in financial and occupational functioning: Cooper et al., 2002; Schneider, 2000). Consequently, based on additional research it would be possible to develop programs to adequately treat or at the best to prevent negative consequences of Internet Pornography Consumption.

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Appendix A

1. Factor analyses concerning cognitive and affective motives of Internet Pornography Consumption

Due to the exploratory character of these two measurement instruments, data reduction by means of exploratory factor analysis took place to assess the factor structure and the psychometric properties of the tests. Furthermore, by reasons of practicability the literature sources are explained in the subsequent tables.

Firstly, the 26 items measuring the cognitive reactions to Internet Pornography Consumption are entered into a principle components factor analysis with varimax rotation (and kaiser-normalization). The Kaiser-Meyer-Olkin measure, an index of sampling adequacy, revealed an excellent value of .91, as large values for the Kaiser-Meyer-Olkin criterion indicate that a factor analysis of the variables is advisable. The second indicator of the strength of relationship among the variables is Bartlett's test of sphericity. Given that the observed significance is $p < .001$; it is concluded that the variables in the population correlation matrix are correlated, thus the strength of the relationship among variables is strong, and therefore it is preceded with the exploratory factor analysis. The exploratory analysis initially revealed five factors with eigenvalues greater than one; additionally the scree plot indicated five distinct factors. Secondly, the 16 items assessing the affective impact of Internet Pornography Consumption are analyzed by means of factor analysis. The Kaiser-Meyer-Olkin criterion had a good value of .82 and Bartlett's test of sphericity again had a significance level $p < .001$; therefore factor analysis can be conducted. The exploratory analysis initially revealed three factors with eigenvalues greater than one; as the scree plot does. For both analyses, only items with factor loadings greater than .3 were viewed as belonging to a particular factor and are displayed in the table. In the event that the item loaded with a value greater than .3 on more than one factor, the highest loading was used. This method have been advocated and implemented by multiple researchers (Field, 2000; Rietveld & Van Hout, 1993). Subsequently the five respectively three extracted factors are shortly introduced under consideration of the reliability analyses of the corresponding items; however, tables 15 and 16 give a detailed descriptions of the individual items per factor. The first cognitive factor to be revealed by the first factor analysis, termed education and inspiration, contains nine items and displays an excellent alpha of .94. The second factor, named arousal, masturbation and curiosity, comprises seven items and has a very good internal reliability coefficient of .91. The following third factor consist of five items with $\alpha =$

.89 and covers the stress releasing and distracting function of Internet Pornography. The fourth factor is termed improvement of relation, with three items revealing a reliability of $\alpha = .83$. The last cognitive factor contains two items ($\alpha = .86$), which are recoded. So it is assured that the higher the value on this scale, the less indifferent feelings the respondent has regarding Internet Pornography Consumption. The first affective factor revealed by the second factor analysis was termed satisfaction and good feelings, initially consisting of six items displaying an internal reliability of .88. After deletion of item 16 ("After watching Internet Pornography I am more aroused from real sex.") the reliability increased with an excellent α of .93. The second factor is called guilt and shame and comprises six items with an alpha = .76; deleting item 10 ("I feel no negative emotions") does sufficiently enhance reliability ($\alpha = .82$). The remaining five items are recoded, such that higher scores represent lower intensity of feelings of guilt or shame. The third factor initially contains four items and reveals a comparative low alpha of .67; which is increased to .75 after deletion of item 12 ("I am more critical with my own body"). The statements of this scale are recoded, so as to assure that a high value indicated a low level of disgust and depression, as this scale is termed. Summarized, the final result of this analysis is one 31-item inventory consisting of five subscales attempting to measure cognitive reactions to Internet Pornography and one 13-item scale comprising three subscales trying to assess affective reactions to Internet Pornography. Mean scores were computed for each of the five respectively three scales by dividing the total score by the number of items.

Table 15 First Factor Analysis; concerning cognitive Motives of Internet Pornography Consumption

initial scale order	indication of item source	Order and wording of new factor Individual item	Components				
			1	2	3	4	5
1. education / inspiration							
4.	1/3/7/10/11	teaches me new things	.80	.36			
1.	1/3/10	informs me (about new sexual techniques)	.74				
3.	2/9/10/11	educates me	.74		.33	.32	
2.	9/10/11	shows me sexual variety	.73	.33			
17.	11	inspires me	.72	.40			
6.	1	teaches me how to behave	.64		.36	.34	
5.	4/8	support / improvement of sexual life	.64			.38	
16.	10/11	explore new preferences	.64	.53			
18.	8	live my sexual fantasies	.51	.44			
2. arousal /masturbation / curiosity							
11.	1/3/7/10/11	makes me sexually aroused		.80			
12.	3/10/11	excites me/ sexual pleasure		.72	.33		
10.	8/9/10	arousing visual aid to look at while masturbating		.66			
14.	1/3/12	satisfy my curiosity about sex	.45	.65			
15.	3/9	stimulate my sexual fantasies	.51	.63			
13.	1/2/3/10	fulfilling my sexual fantasies/needs	.34	.56	.39	.31	
22.	3/5	entertains me good	.30	.47	.45		
3. stress release / distraction							
20.	9/10	relieves sexual frustration			.79		
19.	2/9/10	relieves stress		.36	.76		
21.	10	cope with unpleasant experiences			.75		
23.	2/9/10	distracts me/ use while procrastinate		.42	.71		
24.	9	pass time when bored		.41	.60		
4. improvement of relation							
8.	4/9	enhances arousal during sexual intercourse				.85	
7.	4/9	enhances arousal during foreplay				.84	
9.	1/3/9	helps improve my sexual relationships	.57			.62	
5. indifference							
25.+	5/11	does not bother me/does not influence me					.89
26.+	11	indifference					.86

Note. Extraction Method: Principal Axis Factoring; Rotation Method: Oblimin with Kaiser Normalization. Bold numbers indicate the subscale in which the item is included.
+ recoded item # deleted item

Table 16 Second Factor Analysis; concerning Affective Motives of Internet Pornography Consumption

initial scale order	indication of item source	Order and wording of new factor Individual item	Components		
			1	2	3
1. satisfaction / good feelings					
7.	5/12	I feel good	,91		
3.	5/6	I am comfortable	,90		
4.	3/5	I am happy	,87		
14.	6/10	I am relaxed	,83		
1.	4/6/11/12	I feel satisfied	,81		
16.#	4	I am more aroused from real sex	,37		
2. guilt / shame					
9.+	3/5	I am afraid of being judged		,83	
8.+	1/3/5	I am concerned of being caught /disturbs me		,80	
2.+	3/5	I feel ashamed		,74	
10.#	5	I feel no negative emotions	,38	,60	
13.+	4	I am more critical with partners body		,56	,39
15.+	4	It could be valued as cheating		,54	,38
3. disgust / depression					
5.+	5/11	I feel depressed			,89
11.+	3/5/11	I feel sad / unhappy			,71
6.+	3/5/11	I feel sick / I am disgusted		,35	,61
12.#	4	I am more critical with own body		,42	,48

Note. Extraction Method: Principal Axis Factoring; Rotation Method: Oblimin with Kaiser Normalization.
 Bold numbers indicate the subscale in which the item is included.
 + recoded item # deleted item

The literature used is presented in alphabetical order, not by means of importance.

- 1 Boies, 2002
- 2 Cooper, Morahan-Martin, Mathy, & Maheu, 2002
- 3 Goodson, McCormick, & Evans, 2000
- 4 Grov, Gillespie, Royce, & Lever, 2011
- 5 Grubbs, Sessoms, Wheeler, & Volk, 2010
- 6 Haggstrom-Nordin, Sandberg, Hanson, & Tydén, 2006
- 7 Hald, 2006
- 8 Lam & Chan, 2007
- 9 Paul & Shim, 2008
- 10 Reid, Li, Gilliland, Stein, & Fong, 2011
- 11 Svedin, Akerman, & Priebe, 2011
- 12 Wallmyr & Welin, 2006

2. Analyses of Covariance

Several individual one-way analyses of covariance (ANCOVA) are conducted in this study due to differences in individual concepts according to Internet Pornography Consumption quantity presumably mediated by gender. Regarding general gender differences obtained in connection with a lack of interaction, the difference in concepts depending on user-groups based on Internet Pornography Consumption has to be controlled for actual gender differences. Due to practical reasons only the ANCOVA's revealing significant mediating influences of gender are displayed. Hence, two analyses of covariance identified a mediating relationship of gender, firstly in governing the relationship between Internet Pornography Consumption quantity and attitude toward pornography and secondly in governing the relationship between Internet Pornography Consumption quantity and sexual permissiveness. All other covariance analyses conducted reveal that male-female differences do not mediate the Internet Pornography Consumption quantity for the certain constructs, as the results of the analysis of variance without gender as covariate are similar. Therefore, gender does not underlie the relation of Internet Pornography Consumption and the remaining concepts; although moderating effects of gender occur and are explained in the results.

In the first computation, the independent variable is the Internet Pornography Consumption quantity, including four levels: non-use, low use, moderate use and high use of Internet Pornography. The dependent variable is the individuals' attitude toward pornography score and the covariate is the individuals' gender. A preliminary analysis evaluating the homogeneity-of-regression (slopes) assumption indicated that the relationship between the covariate and the dependent variable does not differ significantly as a function of the independent variable, $F(3,223) = 2.12, p = .10$. Proceeding, the ANCOVA is conducted and the Levene's Test of Equality of Error Variances confirm the underlying assumption of homogeneity of variances ($F(3,227) = 0.63, p = .60$). The effect of the user-group classification is significant controlling for the effect of gender ($F(3,226) = 28.09, p < .001$).

Table 17 Analysis of Covariance for attitude toward pornography by Internet Pornography Consumption

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Gender	1.59	1	1.59	5.06	.02
Internet Pornography Consumption	26.52	3	8.84	28.09	<.001
Error	71.13	226	.32		
Total	125.55	230			

Follow-up tests are conducted to evaluate pair-wise differences among the adjusted means for Internet Pornography Consumption. The Bonferroni procedure is used to control for Type I

error across the six pairwise comparisons ($\alpha = .05/6 = .008$). The results show that individuals differ significantly on the 0.05 level concerning all comparisons, controlling for the effect of their gender. In summary, there is a difference in attitude depending on user-groups based on Internet Pornography Consumption controlling for actual gender differences, it seems that especially males are more prone to high Internet Pornography Consumption due to their more favorable attitude toward pornography. Subsequently the adjusted means are displayed which will be used in further analyses.

Table 18 Adjusted means of attitude toward pornography of the German respondents, separated on basis of weekly Internet Pornography Consumption quantity, depicted in means (*M*) and standard error (*SE*) in brackets

	non-users (<i>n</i> =62)		low users (<i>n</i> =43)		moderate users (<i>n</i> =52)		high users (<i>n</i> =36)	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
	adjusted means for attitude toward pornography	2.68	(.08)	3.08** ¹	(.08)	3.48** ² *** ⁶	(.08)	3.77* ³ *** ^{4/5}

Note. **p* < .05 ***p* < .01 ****p* < .001; describing significant difference between
¹ non users and low users ² low users and moderate users ³ moderate users and high users
⁴ non users and high users ⁵ low users and high users ⁶ non users and moderate users

Secondly, Internet Pornography Consumption quantity is the independent variable, consisting of four levels: non-use, low use, moderate use and high use of Internet Pornography. The dependent variable is the individuals' sexual permissiveness score and the covariate is the individuals' gender. A preliminary analysis evaluating the homogeneity-of-regression (slopes) assumption indicated that the relationship between the covariate and the dependent variable does not differ significantly as a function of the independent variable, $F(3,185) = 1.20, p = .31$. Proceeding, the ANCOVA is conducted and the Levene's Test of Equality of Error Variances confirm the underlying assumption of homogeneity of variances ($F(3,189) = 1.11, p = .35$). The effect of the user-group classification is significant controlling for the effect of gender ($F(3,188) = 12.84, p < .001$).

Table 19 Analysis of Covariance for Sexual Permissiveness by Internet Pornography Consumption

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Gender	4.62	1	4.62	7.78	.006
Internet Pornography Consumption	22.89	3	7.63	12.84	<.001
Error	111.75	188	.59		
Total	166.79	192			

Follow-up tests are conducted to evaluate pair-wise differences among the adjusted means for Internet Pornography Consumption. The Bonferroni procedure is used to control for Type I error across the six pairwise comparisons ($\alpha = .05/6 = .008$). The results show that individuals in the high user group had significantly higher sexual permissiveness scores controlling for the effect of their gender, than individuals in the three other groups. In summary, there is a difference in sexual permissiveness depending on user-groups based on Internet Pornography Consumption controlling for actual gender differences, it seems that especially males are more prone to high Internet Pornography Consumption due to their higher values of sexual permissiveness. Subsequently the adjusted means are displayed which will be used in further analyses.

Table 20 Adjusted means of sexual permissiveness of the German respondents, separated on basis weekly Internet Pornography Consumption quantity, depicted in means (*M*) and standard error (*SE*) in brackets

	non-users (<i>n</i> =62)		low users (<i>n</i> =43)		moderate users (<i>n</i> =52)		high users (<i>n</i> =36)	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
adjusted means for sexual permissiveness	2.32	(.11)	2.44	(.12)	2.73	(.11)	3.46*** ^{3/4/5}	(.14)

Note. **p* < .05 ***p* < .01 ****p* < .001; describing significant difference between
³ moderate users and high users ⁴ non users and high users ⁵ low users and high users

3. Analysis of correlation concerning positive and negative outcome expectancies of Internet Pornography Consumption

In the first table the correlations of the individual positive outcome expectancies and the overall positive outcome expectancies are introduced, in the second table the same applies for the negative outcome expectancies (both measured by means of pornography consumption effect scale).

Table 21 Correlation Analysis of positive outcome expectancies and average weekly Internet Pornography Consumption

	1.	2.	3.	4.	5.	6.
1. Overall Positive Outcome Expectancies	-	.94***	.94***	.78***	.84***	.94***
2. (P) Sex Life		-	.90***	.67***	.77***	.85***
3. (P) Attitude Toward Sex			-	.68***	.76***	.84***
4. (P) Perception Opposite Gender				-	.68***	.66***
5. (P) Life General					-	.70***
6. (P) Sexual Knowledge						-

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

The correlations within the five individual positive constructs of the scale are remarkably statistically significant with high correlation coefficients, just as the correlations of the individual constructs with the overall positive outcome expectancies. Consequently, only the variable positive outcome expectancies is used in progress, because it is assumed that it represents adequately the latent construct.

Table 22 Correlation Analysis of negative outcome expectancies and average weekly Internet Pornography Consumption

	1.	2.	3.	4.	5.
1. Overall Negative Outcome Expectancies	-	.91***	.77***	.71***	.77***
2. (N) Sex Life		-	.56***	.56***	.69***
3. (N) Attitude Toward Sex			-	.36***	.48***
4. (N) Perception Opposite Gender				-	.45***
5. (N) Life General					-

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

The correlations within the four individual negative constructs of the pornography consumption effect scale are also remarkably statistically significant, just as the correlations of the individual constructs with the overall negative outcome expectancies. Therefore, analogous to the decision concerning positive outcome expectancies, it is preceded only with

the overall negative outcome expectancies, as it is assumed that it represents satisfactory the latent construct.

Appendix B

Cover letter

(Informing interested persons about the background, purpose and topic of the study)

Lieber Teilnehmer,
liebe Teilnehmerin,

in den letzten Jahren hat sich das Internet zu einer beachtlichen Quelle von Information und Entertainment entwickelt. Speziell in Bezug auf Sexualität und für pornographisches Material ist das Internet ein wichtiges Medium geworden.

Die Untersuchung, zu der ich Sie um Ihre Mitarbeit bitte, führe ich im Rahmen meiner Master-Abschlussarbeit im Studiengang Psychologie an der Universität Twente in Enschede durch. In dieser Studie geht es um den Gebrauch von Pornographie im oder aus dem Internet und sexuelles Verhalten von jungen Deutschen (18-35 Jahre). Sie werden somit gefragt, ob Sie Internet-Pornographie konsumiert haben und ob das Auswirkungen auf verschiedene Bereiche Ihres Lebens ausgeübt hat. Ich erwarte durch diese Untersuchung ein deutliches Bild des Pornographie-Konsumverhaltens in Deutschland erstellen zu können. Außerdem möchte ich deutlich machen, welche weiteren Faktoren von Bedeutung sind.

Ich bin mir dessen bewusst, dass dieses Thema sehr intim ist und versichere Ihnen, Ihre Angaben streng vertraulich zu behandeln und nicht an Dritte weiterzugeben. Es werden zu Beginn nur allgemeine Informationen über Ihre Person erfragt und selbstverständlich keine IP-Adressen gespeichert. Desweiteren bin ich die einzige Person die Zugriff auf die erhobenen Daten hat. Es werden somit alle Maßnahmen ergriffen, um Ihre Anonymität zu gewährleisten.

Die gesamte Untersuchung dauert ungefähr 20 Minuten und ich bitte Sie freundlichst, sich die Zeit dafür zu nehmen.

Mit dem folgenden Link kommen Sie zur Studie:

<https://www.surveymonkey.com/s/3R9W59Z>

Vielen Dank für Ihre Mitarbeit!

Fragebogen

Die folgende Untersuchung behandelt den Pornographiekonsum und das sexuelle Verhalten von jungen Erwachsenen und Erwachsenen. Im gesamten Fragenkatalog geht es um Ihre persönliche Meinung und Einschätzung; es gibt somit keine richtigen oder falschen Antworten. Bitte seien Sie versichert, dass Ihre Teilnahme vollkommen anonym ist.

Fragen zur eigenen Person

Geschlecht männlich weiblich
Alter _____ Jahre

Welcher ist Ihr höchster erreichter Schulabschluss?

- vor der letzten Hauptschulklasse abgeschlossen
- mit der letzten Hauptschulklasse abgeschlossen
- Realschule ohne Qualifikation
- Realschule mit Qualifikation
- Gymnasium ohne Abitur
- Abitur/Fachabitur ohne anschließendes Studium
- Abitur/Fachabitur mit nicht abgeschlossenem Studium
- Abitur/Fachabitur mit abgeschlossenem Studium

Was ist Ihre tägliche Beschäftigung?

- berufstätig
- Hausfrau/Hausmann
- Schüler/in
- Student/in
- in Berufsausbildung
- arbeitslos

Wie ist Ihr Familienstand?

- ledig
- verheiratet
- geschieden
- verwitwet

Sind Sie momentan in einer festen Beziehung? (INFO: eine Ehe zählt als feste Beziehung)

- ja nein

Wie lange sind Sie bereits in dieser Beziehung? _____ Jahre _____ Monate

Wie ist Ihre sexuelle Orientierung?

- heterosexuell
- homosexuell
- bisexuell

Internet als Informationsquelle für sexuelle Thematiken

Haben Sie jemals das Internet gebraucht um sich über gesundheitliche sexuelle Thematiken zu informieren? ja nein

Wie oft haben Sie sich in der letzten Woche via Internet über gesundheitliche sexuelle Thematiken informiert? _____ Mal

Wie oft haben Sie sich in den letzten vier Wochen via Internet über gesundheitliche sexuelle Thematiken informiert? _____ Mal

Wie lange suchten Sie durchschnittlich per Session nach Informationen? _____ Minuten

Wie häufig sind Sie bei Ihrer Recherche **unabsichtlich** auf Seiten mit sexuell explizitem, pornographischem Material gelangt?

- 100% (immer)
- 75%
- 50%
- 25%
- 0% (nie)

Definition Pornographie

Im Kontext dieser Untersuchung beschreibt der Begriff "Pornographie" audio-visuelle Inhalte im oder aus dem Internet, welche üblicherweise beabsichtigen den Zuschauer zu erregen. Diese Film- und Bildaufnahmen stellen sexuelle Aktivitäten dar und zeigen (erregte) Genitalien, gewöhnlich mit Nahaufnahmen der oralen, analen und vaginalen Penetration. Die folgenden Fragen beziehen sich somit auf sexuell explizites, pornographisches Material, ausschließlich im oder aus dem Internet (das bedeutet bezogen mittels streaming oder download).

Persönliche Einstellung zur Pornographie

Es folgen einige Fragen, wie Sie allgemein über Pornographie denken. Bitte geben Sie Ihre Antwort zu jeder Frage mit Hilfe der folgenden Antwortmöglichkeiten:

- 1 = stimme überhaupt nicht zu,
- 2 = stimme kaum zu,
- 3 = stimme etwas zu,
- 4 = stimme ziemlich zu,
- 5 = stimme völlig zu.

	1	2	3	4	5
Ich denke Pornographie sollte einfach erhältlich sein.					
Ich denke Pornographie sollte gesetzlich verboten sein.					
Ich meine die Zugänglichkeit von Pornographie sollte begrenzt sein.					
Ich glaube, dass Pornographie das Sexleben stimulieren kann.					
Ich denke Pornographie ist unterhaltsam.					
Ich finde Pornographie inspirierend.					
Ich denke Pornographie degradiert Frauen.					
Ich denke Pornographie degradiert Männer.					
Pornographie ist für junge Leute eins der besten Hilfsmittel um etwas über Sex zu lernen.					

Pornographiekonsum

Haben Sie jemals pornographisches Material im oder aus dem Internet konsumiert? ja nein

Wie oft haben Sie in der letzten Woche Pornographie geschaut? _____ Mal

Wie oft haben Sie im letzten Monat Pornographie geschaut? _____ Mal

Wie lange schauen Sie durchschnittlich per Session Pornographie? _____ Minuten

Schauen Sie Pornographie üblicherweise

- alleine
- mit meinem/r Partner/in
- mit einem/r Freund/in
- mit einer Gruppe von Personen?

sexuelles Verhalten

- Hatten Sie jemals Geschlechtsverkehr? ja nein
- Wie oft hatten Sie in der letzten Woche Geschlechtsverkehr? _____ Mal
- Wie oft hatten Sie im letzten Monat Geschlechtsverkehr? _____ Mal
- Haben Sie jemals masturbiert (sich selbst befriedigt)? ja nein
- Wie oft haben Sie in der letzten Woche masturbiert? _____ Mal
- Wie oft haben Sie im letzten Monat masturbiert? _____ Mal
- Wie alt waren Sie bei Ihrem ersten Geschlechtsverkehr? _____ Jahre
- Wie alt waren Sie als Sie Ihren ersten Porno geschaut haben? _____ Jahre
- Wie viele Sexualpartner hatten Sie in Ihrem ganzen Leben? _____ Personen
- Wie viele gelegentliche, zwanglose Sexualpartner hatten Sie in Ihrem ganzen Leben? _____ Personen

[Definition Gelegenheitssex: zwangloser sexueller Kontakt mit unbekanntem oder bekannten Personen, mit denen keine monogame oder verpflichtete Beziehung besteht, sowohl einmaliger (One-Night-Stand) als auch mehrmaliger sexueller Kontakt]

- Wie viele Sexualpartner hatten Sie in den letzten vier Wochen? _____ Personen
- Haben Sie bei Ihrem letzten Geschlechtsverkehr ein Kondom benutzt? ja nein
- Haben Sie jemals Geld bezahlt für Geschlechtsverkehr? ja nein
- Haben Sie jemals Geld erhalten für Geschlechtsverkehr? ja nein
- Hatten Sie jemals eine sexuell übertragbare Krankheit? ja nein

Internet- Pornographie-Konsum (Suchtmuster)

Die folgenden Statements handeln von Ihrem Pornographiekonsum im Internet. Bitte geben Sie bei jedem Statement mit Hilfe der folgenden Skala an, inwiefern Sie zustimmen.

- 1 = stimme überhaupt nicht zu
- 2 = stimme nicht zu
- 3 = stimme eher nicht zu
- 4 = stimme weder zu noch widerspreche ich
- 5 = stimme eher zu
- 6 = stimme zu
- 7 = stimme völlig zu

	1	2	3	4	5	6	7
Hin und wieder habe ich versucht meinen Tagesplan so zu arrangieren, dass ich in der Lage bin alleine zu sein um Pornographie zu schauen.							
Ich bin früher aufgestanden oder später ins Bett gegangen als meine Mitbewohner um Pornographie zu schauen.							
Ich habe abgelehnt mit Freunden aus zu gehen oder bei bestimmten Veranstaltungen anwesend zu sein, um die Möglichkeit wahr zu nehmen Pornographie zu schauen.							
Ich habe wichtige Prioritäten verschoben um Pornographie zu schauen.							
Ich vermeide Situationen in denen mein Pornographiekonsum aufgedeckt oder konfrontiert werden kann.							
Ich fürchte, dass jemand eines Tages mein Geheimnis entdecken könnte (den Konsum von Internetpornographie).							

Ich versuche zu verstecken, was auf meinem Computer oder Bildschirm ist, dass andere es nicht sehen können.							
Ich bin bis spät in die Nacht aufgeblieben um Internetpornographie zu schauen.							
Ich suche Pornographie mit Hilfe einer Internetsuchmaschine.							
Ich masturbiere während ich Pornographie im Internet ansehe.							
Ich glaube ich bin abhängig von Internetpornographie.							
Ich habe kein Problem damit, meine Nutzung von Internetpornographie zu kontrollieren.							
Ich fühle mich nicht imstande, meinen Gebrauch von Internetpornographie zu beenden.							
Selbst wenn ich keine Internetpornographie anschauen möchte, fühle ich mich stark dazu hingezogen.							
Es ist einfach für mich, auf Internetpornographie zu verzichten.							
Wenn ich nicht in der Lage bin, auf Internetpornographie zu zugreifen, fühle ich mich unruhig, bin ärgerlich oder enttäuscht.							
Manchmal benutze ich Pornographie als Belohnung dafür, etwas geschafft zu haben.							
Pornographie hat mitunter Auswirkungen auf bestimmte Aspekte meines Lebens.							

Pornographiekonsum-Effekt Skala

Es folgen einige Fragen über Ihren Pornographiekonsum. Bitte geben Sie Ihre Antwort zu jeder Frage mit Hilfe der folgenden Antwortmöglichkeiten:

- 1 = überhaupt nicht
- 2 = zu einem sehr kleinen Ausmaß
- 3 = zu einem kleinen Ausmaß
- 4 = zu einem mäßigen Ausmaß
- 5 = zu einem großen Ausmaß
- 6 = zu einem sehr großen Ausmaß
- 7 = zu einem extrem großen Ausmaß

Zu welchem Ausmaß glauben Sie hat Ihr Pornographiekonsum:

	1	2	3	4	5	6	7
Ihnen neue sexuelle Techniken gelehrt?							
Sie weniger tolerant in Bezug auf Sex gemacht?							
Ihre Perspektive auf Sex positiv beeinflusst?							
Ihr Bild vom anderen Geschlecht nachteilig beeinflusst?							
Insgesamt, einen schädlichen Einfluss auf Ihr Leben gehabt?							
Insgesamt, einen schädlichen Einfluss auf Ihr Sexleben?							
Sie dazu verleitet das andere Geschlecht mehr stereotypisch zu sehen (in traditionellen Geschlechterrollen)?							

Ihr Wissen über vaginalen Geschlechtsverkehr verbessert?								
Sie etwas Neues über Ihre sexuellen Wünsche gelehrt?								
Sie in Ihrem Leben weniger zufrieden gestellt?								
Insgesamt, einen wertvollen Beitrag zu Ihrem Leben hinzugefügt?								
Insgesamt, Ihr Sexleben verbessert?								
Ihre sexuellen Aktivitäten reduziert?								
zu Ihrem Wissen über Analsex beigetragen?								
Ihr Bild vom anderen Geschlecht positiv beeinflusst?								
Ihr Wissen über das sexuelle Vorspiel verbessert?								
Ihr Leben problematischer gemacht?								
Sie toleranter gemacht in Bezug auf Sex?								
Sie weniger sexuell aufgeschlossen gemacht?								
Sie respektvoller gegenüber dem anderen Geschlecht werden lassen?								
Sie beeinflusst mehr in Ihrem Sexleben zu experimentieren?								
Insgesamt, Ihr Sexleben verschlechtert?								
zu Ihrem Wissen über Selbstbefriedigung beigetragen?								
Sie in Ihrem Leben zufriedener gemacht?								
Ihre Lebensqualität reduziert?								
negativen Einfluss auf Ihre Einstellung zum Sex gehabt?								
Ihre sexuelle Aktivität erhöht?								
Insgesamt, positiven Einfluss auf Ihr Sexleben gehabt?								
Ihr Wissen in Bezug auf Sex verbessert?								
Ihre Lebensqualität verbessert?								
positiven Einfluss auf ihre Einstellung zum Sex gehabt?								
Ihre Perspektive auf Sex nachteilig beeinflusst?								
etwas Positives zu Ihrem Sexleben hinzugefügt?								
Sie beeinflusst weniger in Ihrem Sexleben zu experimentieren?								
Sie weniger respektvoll dem anderen Geschlecht gegenüber werden lassen?								
Sie freundlicher gegenüber dem anderen Geschlecht werden lassen?								
Ihre Meinungen bezüglich Sex nachteilig beeinflusst?								
Sie dazu verleitet das andere Geschlecht weniger stereotypisch zu sehen (in traditionellen Geschlechterrollen)?								
Ihr Wissen von Oralverkehr verbessert?								
zu Problemen in Ihrem Sexleben geführt?								
Ihnen mehr Einblick in Ihre sexuellen Phantasien gegeben?								
Ihr Leben weniger problematisch gemacht?								
Ihre Meinungen bezüglich Sex positiv beeinflusst?								
etwas Negatives zu Ihrem Sexleben hinzugefügt?								
Sie sexuell aufgeschlossener gemacht?								
Allgemein, Ihnen Angst vor Versagen/ Leistungsangst bezüglich alleiniger sexueller Aktivitäten gegeben (z.B. während der								

Masturbation)?							
Allgemein, Ihnen Angst vor Versagen/ Leistungsangst bezüglich sexueller Aktivitäten mit anderen gegeben (z.B. während des Geschlechtsverkehrs, beim Oralsex, etc.)?							

Lebenszufriedenheit Ehe und Partnerschaft

Die folgenden Statements beziehen sich auf Ihre aktuelle feste Beziehung. Markieren Sie bitte bei jeder der folgenden Feststellungen jeweils jene Zahl, die am ehesten Ihrer Zufriedenheit in Bezug auf die betreffende Feststellung entspricht.

- 1 = sehr unzufrieden
- 2 = unzufrieden
- 3 = eher unzufrieden
- 4 = weder/noch
- 5 = eher zufrieden
- 6 = zufrieden
- 7 = sehr zufrieden

	1	2	3	4	5	6	7
Mit den Anforderungen, die meine Partnerschaft an mich stellt, bin ich							
Mit unseren gemeinsamen Unternehmungen bin ich							
Mit der Ehrlichkeit und Offenheit meines/meiner Partners/Partnerin bin ich							
Mit dem Verständnis, dass mir mein/e Partner/in entgegenbringt, bin ich							
Mit der Zärtlichkeit und Zuwendung, die mir mein/e Partner/in entgegenbringt, bin ich							
Mit der Geborgenheit, die mir mein/e Partner/in gibt, bin ich							
Mit der Hilfsbereitschaft, die mir mein/e Partner/in entgegenbringt, bin ich							

Lebenszufriedenheit Sexualität

Die folgenden Statements beziehen sich auf Ihr Sexualeben. Die beiden letzten Aussagen beziehen Sie bitte auf Ihre aktuelle Beziehung; falls Sie Single sind, beziehen Sie diese bitte auf Ihre letzte Beziehung. Markieren Sie bitte bei jeder der folgenden Feststellungen jeweils jene Zahl, die am ehesten Ihrer Zufriedenheit in Bezug auf die betreffende Feststellung entspricht.

- 1 = sehr unzufrieden
- 2 = unzufrieden
- 3 = eher unzufrieden
- 4 = weder/noch
- 5 = eher zufrieden
- 6 = zufrieden
- 7 = sehr zufrieden

	1	2	3	4	5	6	7
Mit meiner körperlichen Attraktivität bin ich							
Mit meiner sexuellen Leistungsfähigkeit bin ich							
Mit der Häufigkeit meiner sexuellen Kontakte bin ich							
Wenn ich daran denke, wie unbefangen ich über Sexualität sprechen kann, bin ich							
Mit meinen sexuellen Reaktionen bin ich							
Mit der Häufigkeit, mit der mein/e Partner/in sich mir körperlich zuwendet (streichelt, berührt) bin ich							
Wenn ich daran denke, inwiefern mein/e Partner/in und ich in der Sexualität harmonieren, bin ich							

Sensation Seeking & Sexual Sensation Seeking

Die folgenden Aussagen behandeln eine Beschreibung der eigenen Person. Bitte geben Sie bei jeder Aussage an, wie sehr diese auf Sie persönlich zutrifft. Hierfür stehen Ihnen die folgenden Antwortmöglichkeiten zur Verfügung.

1 = trifft überhaupt nicht auf mich zu

2 = trifft kaum auf mich zu

3 = trifft etwas auf mich zu

4 = trifft ziemlich auf mich zu

5 = trifft völlig auf mich zu

	1	2	3	4	5
Ich würde gerne fremde und entfernte Orte erkunden.					
Ich mache gerne beängstigende/ erschreckende Dinge.					
Ich mag neue und aufregende Erfahrungen, selbst wenn ich dafür Regeln brechen muss.					
Ich bevorzuge Freunde, die aufregend und unberechenbar sind.					
Ich mag wilde, hemmungslose sexuelle Begegnungen.					
Die physische Befriedigung ist das wichtigste beim Sex.					
Ich genieße das Gefühl Sex ohne Kondom zu haben.					
Meine sexuellen Partner denken vermutlich, dass ich risikofreudig bin.					
Wenn es zum Sex kommt, ist die physische Attraktivität für mich wichtiger als die Person gut zu kennen.					
Ich finde Vergnügen an der Gesellschaft von sinnlichen, genussüchtigen Menschen.					
Ich genieße es pornographisches Material zu schauen.					
Ich habe Dinge gesagt die nicht wahr waren, um jemanden dazu zu bringen, Sex mit mir zu haben.					
Ich bin interessiert am Ausprobieren von neuen sexuellen Erfahrungen.					
Ich habe Lust meine Sexualität zu erforschen.					
Ich mag es, neue und aufregende sexuelle Erfahrungen und Empfindungen zu haben.					

sexuelle Freizügigkeit

Die folgenden Statements handeln von Ihrer sexuellen Freizügigkeit. Bitte geben Sie bei jedem Statement mit Hilfe der folgenden Skala an, inwiefern Sie zustimmen.

- 1 = stimme überhaupt nicht zu
- 2 = stimme kaum zu
- 3 = stimme etwas zu
- 4 = stimme ziemlich zu
- 5 = stimme völlig zu

	1	2	3	4	5
Ich muss nicht in einer festen Beziehung mit einer Person sein um Sex mit ihr/ihm zu haben.					
Gelegenheitssex ist akzeptabel.					
Ich hätte gerne Sex mit vielen Partnern.					
One-Night-Stands sind meistens genussvoll.					
Es ist in Ordnung sexuelle Beziehungen zu mehr als einer Person gleichzeitig zu unterhalten.					
Sex als simpler Austausch von Gefälligkeiten ist in Ordnung, wenn beide Personen diesbezüglich übereinstimmen.					
Ich habe den besten Sex, wenn er nicht an Bedingungen gekoppelt ist.					
Das Leben wäre weniger problematisch, wenn man freier Sex haben könnte.					
Es ist möglich Sex mit einer Person zu genießen, auch wenn man diese Person nicht sehr mag.					
Es ist in Ordnung, wenn Sex nur als gute Möglichkeit zur physischen Entlastung angesehen wird.					

Persönliche Motive

Die folgenden Statements betreffen Ihre persönlichen Reaktionen auf Pornographie. Außerdem werden die Gründe erfragt, weshalb Sie sexuell explizites Material verwenden. Bitte geben Sie bei jeder Aussage mit Hilfe der folgenden Skala an, inwiefern Sie zustimmen.

- 1 = stimme überhaupt nicht zu
- 2 = stimme kaum zu
- 3 = stimme etwas zu
- 4 = stimme ziemlich zu
- 5 = stimme völlig zu

Internet-Pornographie...

	1	2	3	4	5
informiert mich (sexuelle Techniken/Positionen)					
zeigt mir sexuelle Vielfalt					
bildet mich/ klärt mich auf					
lehrt mich Neues					
unterstützt mich in meiner Sexualität					
lehrt mich wie ich mich während des Sex zu verhalten habe					
nutze ich während des Vorspiels (um mich vor dem Sex zu erregen)					

nutze ich während des Sex, um erregt zu sein					
hilft meine sexuelle Beziehung zu verbessern					
ist eine anregende visuelle Hilfe während der Masturbation					
erregt mich sexuell					
bringt mir sexuelles Vergnügen					
erfüllt meine sexuellen Bedürfnisse					
befriedigt meine sexuelle Neugier					
regt meine Phantasie an					
lässt mich neue Vorlieben entdecken					
inspiriert mich (Ich möchte ausprobieren was ich gesehen habe)					
ermöglicht es mir meine Phantasien auszuleben					
baut meinen Stress ab					
baut sexuelle Frustration ab					
hilft mir mit unangenehmen emotionalen Erfahrungen um zu gehen					
unterhält mich gut					
lenkt mich ab					
vertreibt meine Langeweile					
hat keinen Einfluss auf mich					
ist mir gleichgültig					

Nach dem Konsum von Pornographie...

	1	2	3	4	5
bin ich befriedigt					
schäme ich mich					
fühle ich mich wohl					
bin ich fröhlich					
bin ich depressiv					
bin ich angeekelt					
fühle ich mich gut					
bin ich beunruhigt, erwischt werden zu können					
bin ich ängstlich, verurteilt werden zu können					
habe ich keine negativen Emotionen					
bin ich niedergeschlagen					
bin ich kritischer mit meinem Körper					
bin ich kritischer mit dem Körper meines Sexualpartners					
bin ich entspannt					
fühle ich, dass es als Betrug gewertet werden könnte					
bin ich erregter von realem Sex					

Vielen Dank für Ihre Mitarbeit!
Seien Sie versichert, dass Ihre Angaben vollkommen anonym behandelt werden!