Running Head: Cultivating a Porn Aesthetic: The Role of Internet Pornography in the Sexual Socialisation of Contemporary Emerging Adults

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Statement of Candidate

I hereby confirm that all material contained in this project are my original authorship and ideas, except where the work of others has been acknowledged or referenced. I also confirm that the work has not been submitted for a higher degree to any other university or institution. The research project was approved by the Macquarie University Human Research Ethics Committee (Approval No. 5201700272).

Signed:

Shireen Bernstein Date: 11th December 2017

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Abstract

The primary aim of this study was to explore the role of Internet Pornography (IP) in the sexual socialisation of emerging adults, most notably the impact of IP on the acquisition or reinforcement of aggressive, sexual and gendered scripts, attitudes and behaviours. Also examined were whether such processes may facilitate hostility and aggression toward women by men, whether dissociation processes play a role, and gender differences. This research utilised an online survey and involved a sample of 278 young adults (aged 17-25 years) who completed measures of their initial recalled exposure to IP, their affective and cognitive responses to IP, global attitudes to IP and the influence of IP on their sexual beliefs and behaviours. IP usage patterns in terms of compulsiveness, tendency to isolate oneself and experience guilt concerning usage along with the propensity to dissociate when viewing IP also formed part of this enquiry. Specific hypotheses were based on theories related to sexual scripts, cultivation and social learning. These theories propose that immersion in an IP mediated world view can cultivate an analogous world view in its consumers, with possible impacts on both the sexual attitudes and behaviours of young adults. The results indicated that a high number of respondents felt their sexual behaviour had been changed by their IP use, and many were enacting some of what they had seen online. Whilst most felt they could control their use of IP a substantial proportion were concerned they were addicted to IP. Although a general acceptance of violence was rejected by most respondents, a small but robust link between IP and sexual aggression in the form of sexual coercion and physical aggression was noted in this study. This research has provided important insights into the role of IP in the sexual socialisation of emerging adults, and does so in the under-researched Australian context.

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Introduction

The proliferation in Australia of high-speed Internet access since the late 1990's has provided many benefits but it has also provided a platform for some psychological problems. One such problem has been the growth and easy accessibility of Internet pornography (IP) and the developmental impact this has had on human sexuality (Binik, 2001; Cooper, McLoughlin, & Campbell, 2000; Fisher & Barak, 2001). Once relegated to restricted niche genres, today anyone with Internet access can view IP that ranges from erotica to sexual violence and simulated rape (Makin & Morczek, 2016). IP narratives that include violence against women have become unexceptional in mainstream IP, as the porn industry produces content to meet the demand for more and more extreme material (Crabbe & Corlett, 2011; Makin & Morczek, 2016). Consequently, many young people now stumble across and learn about sex from degrading and sexually violent depictions of it (Martellozzo et al., 2016; Mitchell, Finkelhor, & Wolak, 2003) raising concerns that young people are being overwhelmed with sexually explicit (often violent) material before they are developmentally capable of integrating it into a healthy sexual identity (Flood & Hamilton, 2003; Wallmyr & Welin, 2006). Most notably, it is argued that IP is an important source through which contemporary emerging adults can acquire or reinforce sexual and gendered scripts, attitudes and behaviours (Owens, Behun, Manning, & Reid, 2012; Štulhofer, Buško, & Landripet, 2010; Sun, Bridges, Johnson, & Ezzell, 2016; Weinberg, Williams, Kleiner, & Irizarry, 2010). Despite this, there is limited Australian research data that specifically examines the impact of IP on the sexual attitudes and behaviour of emerging adults, particularly concerning the extent of compulsive use of IP and the association between IP consumption and sexually aggressive attitudes and behaviours. Similarly, there are few assessment tools to assist in conceptualising IP users and identifying those who may be at a higher risk for adverse outcomes from their consumption.

1.1 Definitions and the Unique Attributes of IP

IP is defined as professionally produced or user-generated pictures or videos intended to sexually arouse the viewer (Peter & Valkenburg, 2016). These videos and pictures typically depict "sexual activities, such as masturbation and oral sex, as well as vaginal and anal penetration, in an unconcealed way, often with a close-up on genitals" (Peter & Valkenburg, 2016, p. 510). The number of IP web sites has expanded from 70,000 websites worldwide in 2001 to a recent estimate of approximately 4.2 million porn sites in the U.S. alone (Glass, 2014). Globally, IP is a $97 billion industry, with an estimated ten to twelve billion dollars of this amount spent in the U.S. ((FSM), 2007; Morris, 2015). In Australia, the porn industry was estimated to be worth about $500 million a year by Fiona Patten, executive officer of the sex industry's peak body, the Eros Association (Cadzow, 2011). Relatedly, a recent annual review by one of the largest online providers of IP, *Pornhub*, ranked Australia as number eight in their list of the top twenty traffic countries for IP (Jager, 2017).

Quite apart from the usual sources of this material such as restricted adult magazines and DVDs purchased in adult shops, IP is unique in its possession of three primary factors that accentuate the attractiveness of the Internet for sexual activities (Cooper & Griffin-Shelley, 2002; Paul, 2005; Traen, Sorheim Nilsen &Stigum, 2006). Cooper (1998) has described these factors as the '*Triple-A Engine*', namely; accessibility (i.e., millions of sites available 24/7), affordability (i.e., competition keeps prices low or free), and anonymity (i.e., people perceive their communications to be anonymous). The explosive growth of the Internet and the ubiquitous availability of computers in almost every organization, school and home, has altered pornography consumption from the clandestine habit of a few to an almost normative pastime for many (Carroll et al., 2008; Coopersmith, 2006; Döring, 2009; Price, Patterson, Regnerus, & Walley, 2015). Importantly, this alteration in the distribution model of pornography has had important implications for generations of young people:

"Pornography has moved from the brown paper bag to smartphones, computer screens and popular culture. In the adolescent world of attraction, desire, exploration and love, internet porn is normalised, shared and imitated" (Crabbe & Corlett, 2014). Research repeatedly confirms the pre-eminence of the Internet in the lives of young people (Lauricella, Cingel, Blackwell, Wartella, & Conway, 2014; Lenhart, Ling, Campbell, & Purcell, 2010). Australian teenagers and young adults are high users of the Internet with 83% of teens and 90% of 18–24-year-olds going online three or more times daily (ACMA, 2015) providing ample opportunities for both unintentional and intentional exposure to IP.

1.2 Prevalence of IP use in Adolescence

A recent UK survey by the *National Centre for Prevention of Cruelty to Children* (NSPCC) of more than 1,000 children (11-16 years) found that at least half had been exposed to IP (Martellozzo et al., 2016). Almost all (94%) of this group had seen IP by age 14 (Martellozzo et al.). Similarly, a recent Australian study indicated the median age at first exposure to IP was 13 years for males and 16 years for females (Lim, Agius, Carrotte, Vella, & Hellard, 2017). A U.S. study has found earlier ages for initial exposure, with the average age 11 years, with 100% of 15-year-old males and 80% of 15-year-old females reporting they had been exposed to violent, degrading IP (Horvath et al., 2013). IP exposure was typically experienced before they had any sexual experiences themselves (Horvath et al., 2013). Such exposure may be inadvertent (through unsolicited e-mails or an accidental online encounter) or intentional. In terms of prevalence amongst adolescents, figures differ by study, and vary as to whether this exposure is unintentional or deliberate (Martellozzo et al., 2016; Peter & Valkenburg, 2016). For example, prevalence rates for for unintentional exposure of children to IP range from 19% amongst 10- to 12-year-olds in the U.S. (Mitchell et al., 2003) to 60% among Australian girls and 84% among Australian boys aged 16 to 17 (Flood, 2007).

Prevalence rates of intentional exposure vary from only 7% of 10- to 17-year-olds in a U.S. study (Ybarra & Mitchell, 2005) to 59% in a more recent study of Taiwanese 10-12th-grade students (Chen, Leung, Chen, & Yang, 2013). Regardless of the intent behind their exposure to IP, clearly most young people in western countries will be exposed to IP, raising concerns about the cumulative impact of the exposure of generations of children and adolescents to IP (Peter & Valkenburg, 2006a, 2006b, 2011; Ybarra & Mitchell, 2005; Zillmann, 2000). For example, just over half the boys from the NSPCC survey (53%) believed the IP they had seen was a realistic portrayal of sex and relationships, and 39% of the 13 to 14-year-olds wanted to copy some of the behaviours they had seen (Martellozzo et al., 2016). To date however, there is scant research, particularly in Australia, examining the impact of early exposure to IP on the sexual attitudes and behaviours of young people and whether this exposure is a catalyst for them to enact what they have seen online once they become sexually active.

1.3 Prevalence of IP use in Emerging Adulthood and beyond

Emerging adulthood (18–25 years) is a significant phase of development, usually characterized by exploration in the areas of sexuality, romantic relationships, identity and values, as well increased participation in risky behaviours (Arnett, 2006; Sussman & Arnett, 2014). It is also a developmental period in which significant risks to health and security might be taken or even encouraged as "emerging adults may feel particularly invulnerable to negative life consequences, be self-interested or even hedonistic, and may take an experimental stance toward living" (Sussman & Arnett, 2014, p. 148). Despite the richness of this life stage, there is limited research examining the impact on young people who are coming of age in a context in which 24/7 streaming of IP is pervasive and its consumption increasingly normative (Carroll et al., 2008; Lim et al., 2017).

Recent data suggests that 27% of Australian visitors to *Pornhub* are aged 18-24 years and that 61% of this traffic is accessed via mobile phones (Jager, 2017). Whilst much of this interest may be attributable to curiosity and sexual gratification (Boies, 2002; Goodson, McCormick, & Evans, 2001), previous studies have also confirmed the central role of the Internet in the sexual education of teens and young adults (Buhi, Daley, Fuhrmann, & Smith, 2009). Price et al. (2015) examined data collected over a forty-year period to evaluate changes in attitudes to pornography and its consumption among U.S. young adults and found consumption has been increasing across birth generations, particularly beginning in the 1980s cohort. The authors credited the rise of Internet and access to IP as the key driver in this growth (Price et al., 2015, p. 19). In contrast, Wright (2011b) contends that although data suggests more adult U.S. males appear to be consuming pornography today than in the past, each subsequent year brings about a less than 0.5% increase in the number of adult males who consume pornography, the proportion remaining largely stable, regardless of technological changes.

Carroll et al. (2008) noted that acceptance of IP was as strongly correlated with emerging adults' attitudes and behaviours as their actual pornography use, suggesting that IP use "should be regarded as much as a value stance or a personal sexual ethic as it is a behavioural pattern" (p.24). It has also been noted that rates of pornography use across early, middle, and late emerging adults are relatively stable, suggesting consumption patterns are either established during adolescence or are rapidly developed in emerging adulthood (Carroll et al., 2008). Despite the significance of early adulthood in establishing healthy sexual behaviour, there is absence of studies on the acceptance of IP use among young adults (Carroll et al., 2008), especially in terms of what drives attitudinal acceptance and the tendency to incorporate aspects of IP into sexual behaviours.

Once established, ongoing usage of IP appears to be an increasingly normalised adult pastime (Kinsey, 2002; Paul, 2010). A recent study of 2,381 adult men and women aged 18-59 years, found that almost all men (96%) and most women (up to 71%) had used pornography in the preceding year (Traeen & Daneback, 2013). In a recent sample of 9,963 men and 10,131 women (16 to 69 years) from all Australian states and territories, most men (84%) and half the women (54%) had ever looked at pornographic material and 76% of the men and 41% of the women had viewed pornographic material in the past year (Rissel et al., 2017). In the context of such widespread acceptance and use, the Australian Psychological Society (APS) recently provided a submission to a Senate enquiry identifying some of the potential psychological and societal harms related to both early exposure and increased consumption of IP (Gridley, 2016). In particular, the APS highlighted "the impact on young people's expectations of sex and sexuality, the role pornography plays in facilitating and normalising violence against women, and how it contributes more broadly to representations and normative understandings about sex, sexuality and gender in society" (Gridley, 2016, p. 5). However, understanding these social harms requires an understanding of how images on a screen become embedded with meaning, both at the individual and the societal level.

1.4 Cultivating the IP aesthetic: Theories

1.4.1 Cultivation Theory and IP

Cultivation theory has historically been applied to understanding the long-term effects of television (TV) in recognition of the way in which it pervades the symbolic environment, or shared meaning these images have for individuals (Gerbner, 1998; Gerbner, Gross, Morgan, & Signorielli, 1994). Specifically, the theory focuses on the consequences of exposure to the recurrent patterns of stories, images and messages delivered via TV, the primary proposition being that the more time spent immersed in the world of TV, the more likely people will

believe social reality aligns with TV reality (Gerbner, 1998). As such, this theory provides a salient contextual scaffold to understand the way in which IP can affect sexual socialization. Using this perspective as a framework involves examining the way the message system in an IP facilitated world of sexual relations presents coherent images of sexuality in its societal context (Gerbner, Gross, Jackson-Beeck, Jeffries-Fox, & Signorielli, 1978). The question then, is the extent to which these images are reflected in the assumptions and values held by audiences (Gerbner et al., 1978).

Wright and colleagues have further expanded on the theory: "the essence of cultivation theory is that immersion in the social worldview of a particular mediated message system cultivates a likeminded outlook in consumers" (Wright, Bae, & Funk, 2013). Accordingly, a cultivation theory framework for IP aims to identify how the lessons of symbolic behaviour presented in IP narratives are applied to conceptions of real life sexual relationships (Gerbner et al., 1994). As Gerbner and colleagues explain;

> "People are born into a culture that cultivates their needs as well as their satisfactions...In modern cultures demand and supply are manufactured. Social and psychological characteristics draw individuals to select certain types of content which, in turn, nourish and cultivate those characteristics...Increasingly, media-cultivated facts and values become standards by which we judge even personal experiences and family and community behaviour" (Gerbner et al., 1978, p. 193).

1.4.2 Social Learning: Script theory and IP

The work of Huesmann corroborates cultivation theory and provides a coherent explanation for the mechanism by which mass media prompts behaviour (Huesmann, 1986, 1988). Huesmann contends there are three components to understanding media effects on behaviour: the acquisition of behavioural scripts, their activation and their application (Huesmann, 1986,

1988). Although this theory was initially specified in terms of the acquisition of aggressive scripts, Huesmann's work has since been extended to the acquisition of sexual scripts (Wright, 2011a). In terms of sexual script acquisition, an acquisition effect occurs when an observer learns a new behavioural script, of which he or she was not previously aware (Wright, 2011a). The volume and range of sexually explicit content available on the Internet is vast, with novelty and variety to suit every predilection (Coopersmith, 2006). Certainly, the variety of IP provides the opportunity to acquire new sexual scripts and to abstract higher order scripts (Huesmann, 1986) to form general rules, such as notions of female desire and the malleability of consent portrayed in IP (Paul, 2010; Peter & Valkenburg, 2010; Stanley et al., 2016).

The activation of a script occurs when media exposure provides a cue for retrieval, and this activation can occur with stimuli other than the original media source of the script, such as via sexual arousal (Wright, 2011a). In this way, it is plausible that scripts learnt in IP are activated when an individual finds themselves aroused with their partner, (as they have previously been aroused with IP) and their porn mediated script of sexual relations is then used to guide beliefs, expectations and behaviours towards their partners. Huesmann's information processing model of observational learning also allows for individuals to deem a script unacceptable and reject it. Similarly, Wright's more recent $_3$AM model of sexual socialization asserts that the socializing effects of media sex are influenced by individual differences, with a variety of factors determining if an individual applies acquired scripts at the judgement or behaviour level (Wright, 2013).

Script theory has its origins in social learning theory and it is founded on the idea that children and adolescents learn by observing and imitating what they see on the screen particularly when these behaviours seem realistic or are rewarded (Strasburger, Jordan, & Donnerstein, 2010, p. 758). Layden (2010) notes that IP is potentially a potent teacher for

both beliefs and behaviours, via social learning and this is driven by four factors. First, it is an image saturated medium and learning via imagery is faster than via words, often with little qualification. Second, humans learn better when aroused, as the sympathetic nervous system primes people to remember. Third, because learning is more effective if it is reinforced via reward, and an orgasm is a powerful reward. Finally, we also learn better by observing role models perform a behaviour and therefore viewing a narrative whereby the male protagonist gets what he desires sexually, regardless (or even because of) the brutality he employs and where the female co-stars appear to respond with submission, desire and their own sexual arousal, may powerfully reinforce learning from that IP (Layden, 2010). By such mechanisms, IP consumption may not only impact sexual behaviours , it may also impact "...attitudes toward women and children, what relationships are like, and the nature of sexuality" (Layden, 2010, p. 1). At its core, IP tends to move the socialization of sexuality in the direction of crude, less human engagements, because the medium prioritizes and venerates attention to genitalia and orgasm above all else (Galatzer-Levy, 2012). It has been suggested that this message is clearly communicated in IP, and as a consequence, young people are increasingly utilizing an IP mediated rubric of sexual normalcy against which to judge their own sexual desires (Peter & Valkenburg, 2016). However, research data that specifically explores the opportunities to acquire both scripts and paradigms for sexual behaviour from viewing IP and the impact this has on non-clinical cohorts of young people is limited (Sun et al., 2016; Weinberg et al., 2010).

1.5 Role of IP in Sexual Socialization: Beliefs and Behaviours

It has previously been noted that "...pornography's profusion and dissemination of sexual scripts seems to have, for some, a liberalizing effect... pornography can shape a person's sex life through the normalization of sexual behaviours and a feeling of empowerment that makes

certain types of sexual experimentation more probable" (Weinberg et al., 2010, p. 1398). Researchers have repeatedly highlighted the potential of IP to inculcate more permissive sexual attitudes and gender stereotyped sexual beliefs (Brown & L'Engle, 2009; Lo & Wei, 2005; Peter & Valkenburg, 2016; Rogala & Tydén, 2003; Tydén & Rogala, 2004). For example, a study by Braun-Courville and Rojas (2009) revealed that adolescents exposed to sexually explicit websites were more likely to endorse having multiple lifetime sexual partners, to have had more than one sexual partner in the prior three months, to have used alcohol or other substances at their last sexual encounter, and to have engaged in anal sex. Likewise, longitudinal analyses found that early exposure to IP for both males and females predicted less progressive gender role attitudes, more permissive sexual norms and the likelihood to have had oral sex and sexual intercourse two years after initial exposure (Brown & L'Engle, 2009). IP has also been found to be a socialising agent for adults, a positive prospective association between pornography exposure and subsequent sexual permissiveness noted in a study which utilised longitudinal data, thereby ascertaining a causal path (Wright, 2013).

Social learning and the acquisition of scripts also does not end with adolescence. A survey of 487 college men aged 18–29, found that the more IP a man watches, the more likely he was to use it during sex, request particular pornographic sex acts of his partner, deliberately conjure images of IP during sex to maintain arousal, and have concerns over his own sexual performance and body image (Sun et al., 2016). Furthermore, higher IP use was negatively correlated with enjoying sexual intimacy with a partner, leading the authors to conclude "..that pornography provides a powerful heuristic model which is implicated in men's expectations and behaviours during sexual encounters" (Sun et al., 2016, p. 983). In a separate study exploring female experiences with and attitudes toward pornography, the most strongly endorsed perspective by women (identified via a Q-sort procedure) was that the way

in which they were treated by their partners and the expectations their partners had of how women should look and behave sexually, were a result of the pornography their partners used (Senn, 1993). The potency of IP in influencing sexual behaviour was also demonstrated in a large Norwegian study, where it was found that the number of sexual partners and experience with group sex was associated with exposure to pornography in all media formats (Træen, Nilsen, & Stigum, 2006). Similarly, a longitudinal study amongst 1,467 Dutch adolescents (aged 13–17, 50% female) found exposure to sexually explicit Internet material directly predicted willingness to engage in casual sex (Van Oosten, Peter, & Vandenbosch, 2017). Likewise, studies both in Hong Kong and Australia found the number of sexual partners and frequency of masturbation were associated with sexual media use (Janghorbani & Lam, 2003; Rissel et al., 2017).

1.6 Role of IP in Facilitating and Normalising violence against women

Researchers and policy makers have linked IP to violence against women, both through the reinforcement of stereotypical gender beliefs (Owens et al., 2012) and through the complex messages portrayed in IP about gender, power, sexual health, bodies, pleasure, consent, performance, sexuality and sex (Crabbe & Corlett, 2011; Gridley, 2016; Malamuth, Addison, & Koss, 2000; Sabina, Wolak, & Finkelhor, 2008). Similarly, the sexual objectification of women in media has long been argued to affect men's attitudes in ways that could stimulate sexually violent behaviour (Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010; Fredrickson & Roberts, 1997; Malamuth et al., 2000; Wright & Tokunaga, 2016). Concern exists that young people often do not have the critical frameworks required to deconstruct these messages and that IP provides skewed messages, particularly around consent as a malleable concept, the gendered nature of sexuality and the acceptability of a variety of sexual behaviours (Crabbe & Corlett, 2011; Gridley, 2016).

There is some basis to these concerns as IP viewing amongst adolescents has been linked with stronger gender-stereotypical sexual beliefs and more sexual aggression, both in terms of perpetration and victimization (Brown & L'Engle, 2009; Peter & Valkenburg, 2016). Similarly, frequency of exposure to pornography (and other objectifying media) was found to predict more objectified cognitions about women, which subsequently predicted stronger attitudes supportive of violence against women (Wright & Tokunaga, 2016). The authors concluded that "in objectifying media women's role as a source of male sexual pleasure is emphasized and their humanity is deemphasized. After having internalized the messages of male sexual privilege and female dehumanization, it should be easier for men to envision imposing themselves sexually on women and reacting punitively to women who frustrate their sexual goals" (Wright & Tokunaga, 2016, p. 960). Relatedly, in a study of female university students, early exposure to pornography was related to subsequent "rape fantasies" and attitudes supportive of sexual violence against women, the findings interpreted in the context of women's socialization to accept sexual aggression as a sexual or romantic event (Corne, Briere, & Esses, 1992).

An increase in the amount aggression portrayed in mainstream IP has certainly been noted in the last decade or so (Makin & Morczek, 2016; Pratt & Fernandes, 2015). A recent content analysis of the most popular porn found that 88% of scenes included acts of physical aggression and 48% of the scenes contained verbal aggression (Horvath et al., 2013). Similarly in an analysis of 50 randomly selected films from the top 250 grossing pornography films of 2007, over 3,300 different acts of verbal and physical aggression were recorded, which averaged 11.5 acts of aggression per scene analysed (Bridges et al., 2010). This aggression, largely perpetrated by the male actors was responded to with either neutral or pleasure expressions by the mainly female co-stars in over 95% of the scenes (Bridges et al., 2010). Layden (2010) elucidates this IP narrative in terms of *permission-giving beliefs* (Beck,

1999), which are the cognitions IP consumers use to rationalise what they are watching. Layden (2010) gives the example that "a male masturbating to the images of ... sexually aroused women being beaten, raped, or degraded, is learning that the subjects enjoy and desire this treatment and is thereby being taught that he has permission to act this way himself" (p. 3). As Marshall (2000) notes, these pornographic depictions, which distort the truth about female desire, "legitimize men's sense of entitlement, use of force, violence, and degrading acts, [and] implicitly communicate that it is acceptable and even normative to engage in this sort of behaviour" (p. 67).

There is substantial evidence of a link between aggressive or violent sexual practices and beliefs and exposure to sexually explicit material (Layden, 2010; Malamuth et al., 2000; Seto, Maric, & Barbaree, 2001; Stanley et al., 2016). For example, males who viewed sexual violence obtained higher scores on scales measuring acceptance of interpersonal violence and the rape myth, when compared to males who viewed a physically violent or a neutral film (Weisz & Earls, 1995). Compared to low pornography users, high users have also displayed greater acceptance of the rape myth, adversarial sex beliefs, acceptance of violence against women, reported likelihood of committing rape and forced sex acts and sexual callousness (Check & Guloien, 1989). A meta-analysis of nonexperimental studies similarly, found an overall significant positive association between pornography use and attitudes supporting violence against women and this association was significant with both sexually violent and non-violent pornography (Hald, Malamuth, & Yuen, 2010). Although such research cannot determine causality and directionality, it is indicative that higher levels of IP exposure, support or amplify existing negative or violent sexual attitudes (Atkinson & Rodgers, 2016).

1.7 Who watches IP?

The empirical evidence on IP viewing behaviour exists on a continuum from it being endorsed by some viewers as harmless, positive and educative (Carroll et al., 2008; Gunther, 1995; Traeen & Daneback, 2013) to it being seen as exploitative, detrimental and addictive (Chaney & Dew, 2003; Cooper, 1994; Cooper, Delmonico, & Burg, 2000; Döring, 2009; Sheffield, 1987). However, the tendency to minimize the negative effects of IP or to believe that others are more vulnerable to its effects is not uncommon (Cooper, Scherer, Boies, & Gordon, 1999; Gunther, 1995; Hald & Malamuth, 2008). In a study of self-perceived effects of hard-core pornography consumption, both men and women reported small to moderate positive effects and few, if any negative effects (Hald & Malamuth, 2008). The authors proposed the operation of biased optimism in viewers of IP, whereby participants' desire for and arousal by IP, leads to the negative effects of its consumption being minimized or overlooked and its positive effects being maximized (Hald & Malamuth, 2008).

Gender has been shown to be a consistent predictor of both the consumption of IP and its impact, with males more likely to use it more, to find it more exciting and enriching and to note fewer negative effects (Hald & Malamuth, 2008; Janghorbani & Lam, 2003; Stewart & Szymanski, 2012; Træen, Spitznogle, & Beverfjord, 2004). In one study, it was found that compared to women, men used pornography significantly more often during solitary sexual activity (i.e. masturbation), were exposed to pornography at a significantly younger age, and spent significantly more time per week watching pornography (Hald, 2006). Carroll et al. (2008) likewise found that 87% of emerging adult men compared to 31% of emerging adult women were using IP at some level (Carroll et al., 2008). Amongst emerging adult men, nearly half reported viewing pornography at least weekly and about one in five reported using pornography daily or every other day (Carroll et al., 2008). Similarly, in another study of young (14-24 years) Swedish women who attended a family planning clinic, four out of

five had consumed pornography and one-third of these believed that pornography had impacted their sexual behaviour, an association noted between pornography consumption and having engaged in anal intercourse (Rogala & Tydén, 2003). However, in terms of global attitudes toward pornography, US, Finish, Norwegian, and Swedish studies all indicate women are more likely than men to favour restrictions and to describe pornography as dull, not exciting, or repulsive (Herman & Border, 1983; Kontula & Haavio-Mannila, 1995; Lewin, 1997; Træen, Spitznogle, & Beverfjord, 2004).

1.8 Problematic IP viewing: Compulsion & Dissociation

It has been suggested that whilst most people who use IP, seek it out simply because the state of sexual excitement feels good, or they welcome it as a distraction at times (Janssen, 2002), compulsive viewers don't use IP because it feels good, but because it makes them feel better, a subtle, but powerful distinction (Cooper, Delmonico, Griffin-Shelley, & Mathy, 2004). Specifically, it has been argued that the immediate powerful reinforcement afforded by the variable schedule of clicking through hundreds of images to find the novel one that excites, makes this behaviour potentially addictive for many users (Schwartz & Southern, 2000). It should be noted, though, that currently there is no widely accepted means of defining or assessing problematic IP consumption. However, a recent measure of addiction to IP, the *Cyber Pornography Use Inventory*, has been validated (Grubbs, Sessoms, Wheeler, & Volk, 2010). This scale includes items related to compulsivity in IP viewing, guilt and isolation experienced due to viewing IP and interest and efforts taken to view IP (Grubbs et al., 2010; Grubbs, Volk, Exline, & Pargament, 2015). Another study has measured sexual compulsion in viewers and found 17% of respondents reported problematic levels of IP consumption (Cooper, Delmonico, et al., 2000). Similarly, in a separate study, 20%–60% (depending on the domain of interest) of those who viewed IP, found it to be problematic, the strongest

negative effects noted in the psychological or spiritual domain and in actual behavioural outcomes, such as relationship impairment and problems at work or school (Twohig, Crosby, & Cox, 2009). It was further noted that the way an individual interacts with their urges to view IP, in terms of how much they try to suppress these urges, may mediate whether viewing becomes problematic (Twohig et al., 2009).

Cooper, Putnam, Planchon, and Boies (1999) have suggested a taxonomy of online sexual activity (OSA) with some categories more at risk of problematic co-occurring behaviours. *Recreational* users are suggested to engage in OSA in a casual way and for a variety of reasons from diversion to education and experimentation (Cooper, Putnam, et al., 1999). These users tend to maintain reasonable levels of involvement over time, without any significant adverse effects in their lives (Cooper, Putnam, et al., 1999). *Sexually Compulsive* users are composed of individuals with historical or current sexual issues, who utilise the Internet as a conduit through which to pursue their sexual proclivities, often with significant detrimental consequences (Cooper, Putnam, et al., 1999). The final category is the *At-risk* user, of which there are three subtypes: the stress-reactive, the depressive and the fantasy user (Cooper et al., 2004; Cooper, Putnam, et al., 1999). Those in the stress reactive category use their OSA during times of high stress "as a temporary escape, distraction, or means of coping with uncomfortable feelings that arise from stressful situations" (Cooper et al., 2004). The depressive subtype seek relief from either chronic or acute depression, their OSA used to provoke any emotion other than melancholy. The "fantasy type" use the Internet to engage in sexual activities that they would not perform in their offline lives (Cooper et al., 2004). Whilst the authors acknowledge that sexual fantasy using the Internet is not problematic in of itself, the development of a clandestine and separate sexual life, whereby an individual's fantasies become increasingly compelling and deviant can have significant deleterious effects for certain individuals and their primary intimate relationships (Cooper et al., 2004).

It has also been suggested that OSA becomes problematic when three general criteria are present: obsession, compulsion, and consequences as a result of the behaviour (Schneider, 1994). As Cooper et al. (2004) describe, "individuals with sexually problematic behaviours often spend a great deal of time fantasizing, planning, or thinking about sexual behaviour and may become obsessed with their activity and the rituals surrounding it". The authors describe how individuals can engage in a "trance like" state endlessly searching for the ideal explicit material to fulfil a favourite fantasy, to distract them from their daily routine or to escape uncomfortable feelings (Cooper et al., 2004). In his clinical exploration of compulsive sexual behaviour amongst adolescent males, Galatzer-Levy (2012) describes a phenomenon whereby the patient's masturbation is actually dissociated from their personal erotic fantasy using IP.

Dissociation is conceptualized on a continuum and is defined as an inability to integrate one's thoughts, feelings, or experiences into present consciousness (Bernstein & Putnam, 1986; Braun, 1988; Giesbrecht, Merckelbach, & Geraerts, 2007). Non-pathological forms of dissociation, such as daydreaming and fantasising sit at one end of the continuum with more severe clinical forms, such as Dissociative Identity Disorder at the other end (Chaney & Chang, 2005). It has been argued that for the individual who feels overwhelmed by life experiences, the operation of dissociation facilitates an adaptive alteration in consciousness, in which aspects of the self can be disconnected as a coping mechanism (Braun, 1988).

Braun (1988) explored dissociation via the BASK (Behaviour, Affect, Sensation and Knowledge) model, explaining dissociation can occur at any level, individually or in combination with other levels. At the *behaviour* level, individuals may find themselves enacting sexual practices in their intimate relationships which are at odds with their stated or implicit sexual preferences and values without making the connection between these

behaviours and the IP they have been exposed to since their youth. At the *affect* level, individual's may feel disgusted and guilt ridden by the material they are viewing concurrent with their compulsive searching and clicking on more material of the same ilk. At the *sensation* level, individuals may struggle to integrate feeling sickened and even afraid of what they are viewing with their physiological arousal and thus resort to compartmentalizing their IP viewing to prevent further psychic anxiety. Finally, at the *knowledge* level, individuals may have no conscious knowledge of why they no longer find ordinary sexual encounters with one individual lacking in terms of their arousal, their autoerotic behaviour and IP consumption not contemplated in this equation.

Similarly, Galatzer-Levy (2012) describes how IP can be designated as a kind of cultural object originating outside of the individual, thereby functioning as a defence against otherwise unacceptable mental content. Galatzer-Levy (2012) notes that if "while engaging in fantasy, a person can say to himself that the cultural artefact he has engaged is not really of his choice, he can further distance himself from his own fantasy. Internet pornography is a cultural artefact the personal meaning of which can be readily disavowed" (p. 492). Avoidance of the meaning of IP and the disavowal of any personal connection to the content viewed via dissociation (particularly when this content is at odds with social or personal moral norms), has only been partially explored in the current literature. For example, Schwartz and Southern (2000) suggest a dissociative process is at play when an individual engages in cybersex online and then goes to bed with their spouse without experiencing any dissonance or discomfort. Chaney and Chang (2005) suggested that dissociation occurs when an individual is unaware not only of why they are engaging in online sexual behaviour but also when this behaviour becomes compulsive, the viewer increasingly detached from both their own feelings and reality (Chaney & Chang, 2005). Thus, the ability to view potentially deviant and violent content that would usually be outside of the individual's consideration,

could be facilitated by the operation of a dissociative process while viewing IP (Chaney & Chang, 2005).

1.9 The Present Study

The ubiquity of the Internet, replete with sexualized and explicit imagery, is such that this platform cannot be overlooked for its role in the sexual socialization of those growing up in this IP zenith. As such, this study begins with the premise that early IP exposure has the potential to impact young adult's formative attitudes and behaviours, the substantive essence of which can be taken into adulthood, with potential consequences to both sexual and gender based attitudes and behaviour. The impact of IP in terms of what factors drive attitudes and beliefs about IP and what determines the likelihood to incorporate IP into sexual relationships has not been adequately explored. Research to date has also produced mixed results concerning the negative outcomes and benefits of IP for young adults and has overlooked key groups, particularly young women (Lim, Carrotte, & Hellard, 2016). Overall, empirical data is sparse, and there is very little empirical data from Australia. This study will be structured around both exploratory and confirmatory objectives and will utilize a cross sectional design to explore these issues further. An online survey will be used to explore the age and circumstances of initial exposure recalled by a sample of young Australian adults (17-25 years). Ongoing usage patterns of IP and the consequences of those patterns, along with attitudes to and beliefs about IP's impact on sexual behaviours will also be explored. The tendency to enact aspects of IP within sexual relationships will also be explored via a novel *Enactment of IP in sexual relationships* scale. Some of the aims of this study are exploratory and some are hypothesis driven. The following research questions will be explored:

> **RQ1:** Are contemporary emerging adults being exposed to IP as young children and what are the circumstances of their exposure?

RQ2: What are the ongoing IP usage patterns of contemporary emerging adults?

RQ3: What drives attitudinal acceptance of IP? Are affective responses to or cognitions about IP more salient?

Several findings are hypothesised. Repeated exposure to pornography has previously been found to desensitise youth to sexually explicit material and to lead to distorted views of what are "acceptable" behaviours in relationships, facilitating more positive attitudes to IP overall as their exposure continues (Martellozzo et al., 2016; Weinberg et al., 2010). Accordingly, this study's first two hypotheses are:

H1: Emerging adults will exhibit diminished negative emotional responsiveness to IP after repeated exposure to it.

H2: Emerging adults will demonstrate ambiguity in their attitudes to IP, with few displaying strongly restrictive attitudes.

In terms of problematic viewing of IP and in line with the scale proposed by Grubbs et al. (2010), this study will examine patterns of IP consumption with regards to viewing IP despite deleterious consequences, engagement in isolating behaviours to view IP and experiences of guilt after viewing IP. Accordingly, the third hypothesis of this study is:

H3: Problematic IP Consumption will include aspects of Compulsion, Isolation & Guilt.

In concordance with a growing body of research, and as the central interrogation underpinning this study, it is suggested that IP is having an impact on the sexual and gender based attitudes, beliefs and behaviours of emerging adults. As such the fourth and fifth hypotheses of this study are:

H4: That individual sexual beliefs and behaviours will be guided and informed by IP scripts

H5: Compulsive use of IP will be associated with lower feminist beliefs and greater acceptance of relational violence.

The current body of IP research is limited in its examination of the factors that are likely to encourage IP consumption to become problematic for some users (Cooper et al., 2004; Harper, 2016; Twohig et al., 2009). In terms of identifying consumers who may be more vulnerable to compulsive use of IP and the tendency to enact aspects of IP that include sexually violent and aggressive behavior, this study will also explore further the *At-Risk fantasy* user described by Cooper et al. (2004). Although this research is only in its early stages, it is suggested that within the fantasy subtype described by Cooper et al. (2004) is the "dissociating" user, who uses IP to fantasize about carrying out activities that would be objectionable in their real lives and thus uses dissociation to disconnect from unacceptable content viewed. This process may be in operation specifically amongst those who are compulsive users of IP. Accordingly, the final hypothesis of this study is:

H6: Compulsive use of IP and the enactment of IP will be associated with a tendency to other dissociative experiences

Method

2.0 Ethics Approval

This study (Internet Pornography use, consumption and attitudes in emerging adults) was submitted to the Macquarie University Human Research Ethics Committee (HREC (Human Sciences & Humanities)). The Committee granted ethical and scientific approval for this project to be conducted by Macquarie University (Reference No: 5201700272)**.** This research meets the requirements set out in the National Statement on Ethical Conduct in Human Research (2007 – Updated May 2015) (the National Statement). Each sub-section of the survey that included sensitive and personal questions also an option to select "I prefer not to answer" and not provide data for that item. Contact information for relevant support organisations was also provided both on the Information and Consent statement prior to survey commencement and at on the Debrief and Re-consent form at the survey conclusion.

2.1 Participants

A total of 278 responses were collected with most of the sample collected at a large public university in Eastern Australia and a smaller sample recruited via Facebook. Of these respondents, 31 cases were dropped from the data set due to incomplete responses. The final sample (N=247) was composed of 198 undergraduate psychology students and 49 young adults recruited through Facebook. For the purposes of this study, the age of respondents was limited to range of 17 and 25 years (60.7% were aged 17-19 years, 27.9% were aged 20-22 years and 11.3% were aged 23-25 years). Of this sample, 61.5% were female and 38.5% were male.

2.2 Design

The format of this study was an online questionnaire with most recruitment achieved through a university based research participation website and a smaller sample recruited through Facebook. All responses were collected anonymously and respondents who required course credit for their participation, were directed to a separate survey to enter their details. The survey was optimised for completion on any computer, tablet device or smart phone.

2.3 Measures

All measures are reproduced in Appendix 1.

Demographics. Participants were asked to identify their age range and gender.

Internet Use. Participants were asked questions about how they accessed the Internet (at home or on a mobile device) and the frequency of their access.

Internet Pornography (IP) Exposure Screener question. As an initial screener for eligibility, participants were asked if they had ever seen what could be described as pornographic material online. The definition for pornographic material utilised was as follows:

> *By pornography, we mean images and films of people having sex or behaving sexually online. This includes semi-naked and naked images and films of people that you may have viewed or downloaded from the Internet, or that someone else shared with you directly, or showed to you on their phone or computer* (Martellozzo et al., 2016)

2.3.1 IP First Exposure. As this was intended as a retrospective (based on their best recall) examination of respondents early exposure to IP, this scale employed a modified version of a scale from a UK study of secondary school boys and girls exploring their attitudes and feelings about online pornography and whether they had viewed it deliberately or accidentally (Martellozzo et al., 2016). The report findings from Martellozzo et al. (2016) were used to create questions 7 to 14 (inclusive) with novel items added to ensure sufficient detail surrounding the circumstances of exposure were captured. The constructs that were of interest were the age of first exposure to IP, who respondents were with at initial exposure (alone or with a friend, family member or romantic partner), if the exposure was expected or unexpected, intentional or accidental. An example of a circumstances response choice was "*To your best recollection, which of these best describes who you were with when you first saw pornography online...I was with a friend/a group of friends*". An accidental exposure response was "*It was an accident – I received it in an unwanted email*". An example of an intentional exposure response was "*It was intentional – I searched for it on YouTube or other streaming site*". An example of an unexpected response choice was "*I was shown it by someone else and I WAS NOT expecting to see it*". An expected response choice was "*I was shown it by someone else and I WAS expecting to see it*". Descriptive analyses were carried out for each item.

2.3.2 Affective Responses to IP (Initial & Current exposure). This scale utilised the report findings by Martellozzo et al. (2016), which examined the affective responses to IP at initial and present exposure. These items were designed to measure whether young people are becoming desensitised (i.e. developing a diminished emotional response to a negative or aversive stimulus after repeated exposure to it) to IP through their early exposure (Martellozzo et al., 2016). The first Affective Responses to IP scale required participants to

click on as many responses that they felt applied to how they recalled feeling at their initial exposure to IP. Given the sensitive nature of the question, respondents could also choose "*I prefer not to answer this question*" as a response and not provide data for that item. Response choices included "*curious*", "*turned on*", "*shocked*", "ashamed". The Second Affective response question (after an intervening item measuring current frequency of IP) was identical and asked respondents to identify their current affective responses to IP. For the initial affective responses question, the total number of Positive affective responses selected was summed and divided by the total number of possible positive affective responses (5) to calculate a total *Positive Valence* score for each respondent. Likewise, the total number of negative affective responses selected was summed and divided by the total number of possible negative affective responses (9) to calculate a total *Negative Valence* score for each respondent. This procedure was repeated for the current affective responses question. As respondents could select as many (or as few) affective responses as they wished, it was not possible to assess this scale for reliability.

2.3.3 Negative Cognitive Responses to IP. Participant opinions of IP were also measured with a 5-Point level of agreement scale (1=Strongly disagree, 3=No opinion, 5=Strongly Agree) (Martellozzo et al., 2016). Examples of items include; "*How much do you agree with the following statements?* "*Most online porn that I have seen was...Upsetting.*" and "*Most online porn that I have seen was...informative/educational*". Five positive valance items were reverse scored before scores were summed to calculate an overall *Negative Cognitive Responses to IP* score, with higher scores indicating a more negative view overall of IP. Reliability for this scale was adequate ($\alpha = 0.79$, n=13). No comparable reliability analysis was available.

2.3.4 Influence of IP on Sexual Beliefs. Four items assessed the influence of IP on respondent sexual beliefs with a 5-Point level of agreement scale (1=Strongly Disagree, 3=No opinion, 5=Strongly Agree) (Martellozzo et al., 2016). Given the sensitive nature of questions, respondents could also choose "*I prefer not to answer this question*" as a response to each item and not provide data for that item. An example of an item was "*Please indicate how strongly you agree or disagree with each of the following statements about yourself in relation to online pornography*: *Seeing online pornography has led me to believe that women should act in certain ways during sex*". Higher scores indicated participants believed IP had greater influence on their sexual beliefs. Reliability was strong for this scale ($\alpha = 0.89$, n=4). Given the novelty of this scale, no comparable reliability analysis was available.

2.3.5 Enactment of IP in sexual relationships scale. One of the possible suggested negative consequences of early exposure to IP is the potential for young people to feel they should mimic the practices they have observed in this material (Martellozzo, 2016). To this end, a novel scale was created to measure enactment of IP activities in sexual relationships utilising a 5-Point level of agreement scale (1=Strongly Disagree, 3=No opinion, 5=Strongly Agree). Respondents could also choose "*I prefer not to answer this question*" as a response to each item and not provide data for that item. Example items included "*Seeing online pornography has led me to be more physically aggressive in my own intimate relationships (e.g. engaging in slapping or hitting during sex)*" and "*Seeing online pornography has led me to feel less attractive/desirable to my current sexual partner/s*". High levels of agreement indicated participants believed IP had influenced their sexual practices. The scale had adequate internal reliability ($\alpha = 0.79$, n=9). Given the novelty of this scale, no comparable reliability analysis was available.

2.3.6 Attitudes towards IP scale. Global attitudes to IP were also assessed via a scale based on the 21-item Attitudes Toward Erotica Questionnaire (ATEQ) (Lottes & Weinberg, 2011). This scale was developed by a University Task Force on Pornography and included measures of attitudes about the harmful and positive effects of erotica, as well as attitudes toward its restriction and regulation with items classified into *Harmful*, *Positive*, and *Restrict* scales. The measure utilised a 5-point Likert scale (1= Strongly disagree, 3=no opinion, 5=Strongly agree). Given the sensitive nature of questions, respondents could also select "*I prefer not to answer this question*" as a response and not provide data for that item. The original scale was modified to be appropriate for IP and thus, three items were omitted; one related to whether the material should be "*publically sold (magazines) and viewed (movies)*", the second related to whether "*people should be made aware of the positive effects of this material*" and the third related to whether "*people should be made aware of the negative effects of this material*". Of the remaining 18 items, an agree response for nine items indicated a pro-IP attitude and an agree response indicated an anti-IP attitude for the remaining nine items.

To decrease the probability of biased responding, the items of the *Harmful*, *Positive*, and *Restrict* scales were not grouped together but mixed randomly within the same block of questions. Accordingly, eight items (rather than nine in the original scale) (numbered 1, 3, 5, 6, 8, 9, 11 and 14) assessed the harmful effects of IP to form a *Harmful scale* with a higher score indicating stronger beliefs that IP is harmful. An example of a Harmful item was "*Internet pornography exploits women*". Six items (rather than seven) (numbered 4, 10, 12, 15, 16, and 18) assessed the positive effects of IP and formed a *Positive scale* with higher scores indicating more positive attributions to the effects of IP. An example of a Positive item was "*Internet pornography can improve sexual relationships*". Four items (rather than five) (numbered 2R, 7R, 13, and 17R) assessed regulatory attitudes to IP (the *Restrict* scale) with a

higher the score suggesting stronger attitudes supporting restrictions on IP. An example item was "*Internet pornography should be made illegal*".

In terms of reliability, in a sample of 663 college students, Cronbach alphas for the *Harmful* scale associated with various forms of erotica ranged from .84 to .90, for the *Positive* scale, alphas ranged from .73 to .78 and for the *Restrict* scale ranged from .84 to .85 (Lottes, Weinberg and Weller, 1993). Good internal consistency was demonstrated in this study for the Harmful scale (α= 0.85), however internal consistency was lower for the Restrict (α= 0.63) and Positive (α= 0.71) scales. and it is likely this was due to the exclusion of items in each of these scales. Excluding the item "*Internet Pornography should be available to minors (under 18)*" from the Restrict scale led to an improved alpha of 0.71, and accordingly the decision was made to exclude this item for the scale calculation.

Although the properties of the individual scales are presented here, prior research by Lottes, Weinberg, and Weller (1993) suggested that attitudes towards erotic material are organised along a simple binary good/bad dimension. Thus, respondents in the study by Lottes et al. (1993) tended to either support the view that sexually explicit materials are harmful, do not have positive effects, and should be restricted, or support the opposite view that such materials are not harmful, do have positive effects, and should not be restricted. Taking this binary view into account, reliability analysis was re-run with the *Harmful* and *Restrict* scale items (excluding the "*Internet Pornography should be available to minors*" item) combined as a unified measure of "*Negative Attitudes to IP*". Using this unified approach, strong internal consistency was noted (α= 0.86). Given that this approach provided two scales with good internal consistency, the decision was made to use the *Negative Attitudes to IP* scale and *Positive* scale in all further analyses.

2.3.7 IP Usage Patterns

Isolation and IP use scale. This four-item scale subscale utilised the *Isolated* subscale of the *Cyber Pornography Use Inventory* (CPUI) which was designed to specifically focus on the use of IP (Grubbs et al., 2010). Respondents were asked the extent to which four statements applied to them based on 5-Point Likert scale (1=Never, 5=Always). Given the sensitive nature of questions, respondents could also choose "*I prefer not to answer this question*" as a response to each item and not provide data for that item. Scores range from 4 to 40 with higher scores indicating more isolating behaviours employed in the consumption of IP. An example of a statement was "*I try to hide what is on my computer or monitor so others cannot see it*". This scale demonstrated good internal reliability ($\alpha = 0.84$, $n=4$). No directly comparable reliability estimates were available, although a subsequent three factor version of the CPUI demonstrated acceptable reliability for each factor ($\alpha > 0.80$) (Grubbs et al., 2010).

Compulsive use of IP scale. This 11-item scale utilised the *Compulsivity* subscale of the CPUI (Grubbs et al., 2010). Compulsivity items of the CPUI directly assessed the extent to which respondents believed they could control their pornography use. For ease of answering, the original 7-point Likert scale measuring levels of agreement was modified to a 5-point Likert scale (1=Strongly Disagree, 5=Strongly Agree). Given the sensitive nature of questions, respondents could also choose "*I prefer not to answer this question*" as a response to each item and not provide data for that item. Scores could range from 11 to 55 with higher scores indicating respondents use of IP was more compulsive. Three of the 11 items (items 3,6 and 10) were reverse scored. An example of a statement was "*When I am unable to access pornography online, I feel anxious, angry or disappointed*". This scale demonstrated good internal reliability ($\alpha = 0.85$, $n = 11$). Note reliability statement above.

Interest & Efforts IP consumption scale. This five item scale utilised the *Interest* and the *Efforts* subscales of the CPUI (Grubbs et al., 2010). Interest and Efforts items assessed the amount of time and efforts made to view IP. The decision was made to exclude two of the original Efforts items as the construct was assessed to be adequately covered by included items. The scale utilised a dichotomous response (True=1, False=0) and again, respondents could choose "*I prefer not to answer this question*" as a response to each item and not provide data for that item. Scores could range from 0 to 5, with higher scores indicating higher interest in IP and more effort expended to consume IP. This scale demonstrated poor reliability (r=0.49, n=5) and given the similarity of items with items captured by the *Compulsive use of IP* scale, the decision was made to exclude this scale from further analysis.

Guilt and IP consumption scale. This 11-item scale utilised the *Guilt* subscale of the CPUI (Grubbs et al., 2010) and assessed the amount of guilt respondents felt in relation to their IP consumption. One item of the original 12-item scale which related to religious guilt, was excluded as this was not the focus of this study. This scale utilised a four-point Likert scale (1=Rarely; 4=Always). Again, respondents could choose "*I prefer not to answer this question*" as a response to each item and not provide data for that item. Respondents were asked to indicate how frequently 11 statements applied to them (or how they felt most of the time) and scores could range from 11 to 44, with higher scores indicating more guilt experienced in relation to IP consumption. Four of the 11 items (5,6, 9 and 11) were reverse scored. An example of a statement was "*I fear that someone might someday discover my secret of viewing online pornography*". An example of a reverse scored item was "*I feel no negative emotions after viewing pornography online*". This scale demonstrated adequate reliability (r=0.790, n=11). Note reliability statement above.

2.3.8 Acceptance of Relational Violence Scales. The *Acceptance of Couple Violence* questionnaire developed by Foshee, Fothergill, and Stuart (1992) was used to assess the acceptability of violence in romantic relationships. The term "acceptability of violence" denotes an individual's attitudes, justifications, or tolerance for violence (Foshee, Linder, MacDougall, & Bangdiwala, 2001). As the scale was previously utilised to measure attitudes to relational violence in school aged children (grades 8 and 9), the wording of the items was altered to use the term "man" instead of "boy" and "woman" instead of "girl". The scale included items such as "*There are times when violence between dating partners is okay*" and "*Some couples must use violence to solve their problems*". The scale utilised a 4-point Likert scale (1=strongly disagree, 4=strongly agree) and again, respondents could choose "*I prefer not to answer this question*" as a response to each item and not provide data for that item. The scale consisted of three subscales: *male on female violence*, *female on male violence*, and *acceptance of general dating violence*. Respondents are asked to select the answer that corresponds with their beliefs. The *Acceptance of Male on Female Violence* subscale is based on items 1, 3 and 4; the *Acceptance of Female on Male Violence* subscale on items 5, 6 and 8; and the *Acceptance of General Dating Violence* subscale on items 2, 7, 9, 10 and 11. Responses to individual items were summed to calculate a total score on each subscale with higher scores indicating greater acceptance of relational violence. Adequate internal reliability has been noted in a previous study for the *Acceptance of Male on Female Violence* subscale (α =0.74), the *Acceptance of Female on Male Violence* subscale (α = 0.71) and the *Acceptance of General Dating Violence* subscale (α =0.73). Good internal reliability was noted in this study for the *Acceptance of Male on Female Violence* subscale (α =0.90, n=3), the *Acceptance of Female on Male Violence* subscale (α = 0.88, n=3) and the *Acceptance of General Dating Violence* subscale (α =0.87, n=5).

2.3.9 Gender Role Beliefs scale. The Gender Role beliefs scale (shortened version) is a 10-item scale based on the 20 item Gender Role Beliefs scale (Kerr & Holden, 1996). This scale is designed to measure gender role ideology, which concerns prescriptive beliefs about gender roles (Brown & Gladstone, 2012). The scale is scored on a 7-point Likert scale (1=strongly agree, 4=undecided and 7= strongly disagree). Total scores on the scale range from 10 to 70, with higher scores indicating more feminist gender role beliefs and lower scores indicating more traditional gender role beliefs. Previous studies (Brown & Gladstone, 2012) have found mean scores of 48.13, indicating moderately feminist gender beliefs and this study similarly noted a mean of 48.38. Previous studies have demonstrated the scale has adequate to strong internal consistency, with alphas ranging from .74 to .81 (Brown & Gladstone, 2012). Good internal consistency was noted in this study (α =0.77, n=10).

2.3.10 Dissociative Experiences Scale Taxon. The Dissociative Experiences Scale Taxon (DES-T) is an eight-item subscale of the full 28-item Dissociative Experiences Scale (DES) (Carlson & Putnam, 1993; Waller & Ross, 1997). The format is the same as the full-scale DES, with each item scored on a scale from 0 to 100 (percent of the time dissociative experience occurs), with the overall score being the mean of the eight items (Waller, 2000). This brief, self-report measure of the frequency of dissociative experiences in daily life, allows individuals to quantify their own experiences on a sliding scale. Two primary themes, or content areas, are represented by the DES–T items: (a) amnesia for dissociative states and (b) derealisation or depersonalization (Waller & Ross, 1997). A mean score of 0 across items has been noted amongst normal individuals in prior research (Waller, Putnam, & Carlson, 1996). Reliability for the full 28-item scale in a previous study was strong (r=0.95) (Frischholz et al., 1990). The shortened taxon version of that scale utilised here also demonstrated strong reliability (r=0.86, n=8).

2.4 Procedure

Respondents recruited via the Psychology Participant Pool signed up for this online study in exchange for course credit and after reading the study description, were given the study Uniform Resource Locator (URL). Participants recruited via a private Facebook advertisement received no remuneration or course credit for their participation and accessed the study via an URL contained in the advertisement.

All surveys began with a participant information and consent form. The main survey began with some demographic questions and was followed by some Internet use data collection. The survey then began with the *IP Exposure Screener* question to determine participant eligibility to participate. Those who selected that they had never seen IP before were redirected to an *ineligible to participate* survey message which thanked them for their time and advised them to select another study to complete for research credit. Facebook participants were simply redirected to a message advising them of their ineligibility and thanking them for their time. Participants who were eligible to participate commenced the survey with some questions related to the first exposure to IP, followed by scales assessing their affective and cognitive responses to IP.

Attitudinal and enactment measures related to their IP consumption were then presented. The survey then continued with items from the CPUI. This was followed by two scales, one measuring gender based stereotypical attitudes and the second measuring acceptance of relational violence. The final set of questions related to dissociative experiences. The survey concluded with information on where to seek assistance if completion of the study had caused any distress. For university based respondents, completion of the survey automatically redirected students to a separate survey where they could enter their details to facilitate awarding of course credit while preserving their anonymity. Facebook participants were redirected to a standard survey completion message.

Results

3.0 Data Screening

Data screening and a data integrity check revealed that of the 278 responses collected, there were 31 cases where respondents commenced the survey but exited after the demographic questions or failed to complete a large proportion of the survey. These 31 cases were excluded from further analysis resulting in a final sample of 247 respondents. A preliminary analysis was performed to check the distributions of the dependent variables. Skewness and kurtosis were within acceptable limits (+/-2.00) (Field, 2000, 2009; Gravetter & Wallnau, 2014; Trochim & Donnelly, 2006) for most of the dependent variables, as displayed in Appendix A. The *Positive Attitudes to IP* variable was slightly positive in terms of Kurtosis, indicating a more peaked distribution of scores with few respondents at either extreme. Given the nature of this measure, this would be expected, with most respondents clustering together in their affirmative attitudes to IP and fewer respondents with either very high or very low scores. Given the large sample size (N=247) the level of kurtosis noted in this variable was assessed as being unlikely to underestimate the variance in the data (Tabachnick & Fidell, 2013).

All the *Acceptance of Violence* variables demonstrated substantial positive skewness and kurtosis, which again was predictable, given that most respondents were clustered near the minimum score due to their disagreement with the acceptability of violence statements. All three variables were therefore transformed with a log transformation that restored skewness and kurtosis to acceptable levels. Data using these variables were analysed first with the transformed data, then with the raw data. The pattern of results was almost identical suggesting the skewness and kurtosis had little impact on analyses. For ease of interpretation, analyses with raw data are reported.

3.1 Age at First Exposure to IP

Most respondents (45%) recalled their first exposure to IP as occurring between 12 and 14 years of age, but just under a quarter (23.9%) of respondents recalled being exposed between 9 and 11 years. Disturbingly, 6% of respondents recalled their first exposure as occurring between 6 and 8 years and 2.4% recalled seeing IP even younger. A larger percentage of females than males recalled seeing IP for the first time between 15-17 years (82.5% female, 17.0% male) and all the respondents who recalled seeing IP for the first time when they were over 17 years were female. The gender split by exposure age is displayed below in Figure 1.

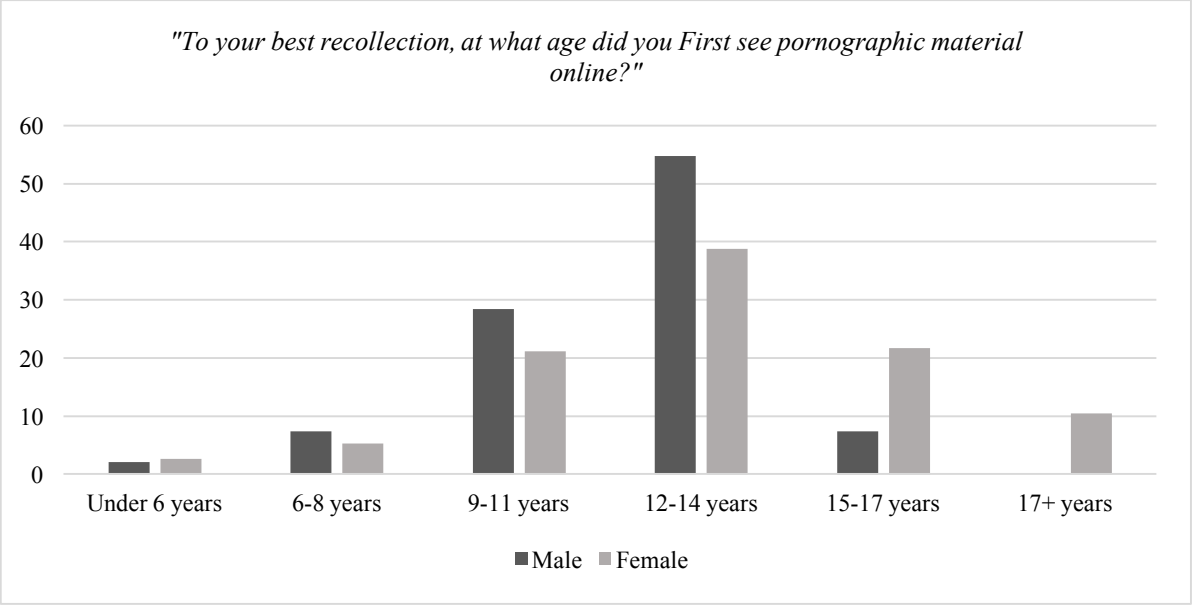

Figure 1. Age of First exposure to IP by gender (Percentage of respondents)

3.2 Exposure Characteristics: How, Where and with Whom? Accidental/Deliberate?

3.2.1 Circumstances of Exposure.

Almost all respondents (99.6%) reported having access to the Internet at home, with the same percentage also having access via a mobile device. Every respondent said they accessed the Internet daily. Most respondents (55.9%) reported viewing IP for the first time on a desktop computer, with around one in five (21.5%) exposed on a portable computer or handheld device (22.3%) and a small percentage (0.4%) exposed on an X-box or similar gaming device.

Just over half (51%) indicated their first exposure to IP had occurred alone, however a significant proportion (43.7%) identified that they had been with a friend or a group of friends. A smaller percentage of respondents indicated they were with a sibling or family member (3.2%) or a boy/girlfriend (1.6%). In terms of location, most respondents (61.1%) described their first exposure to IP as occurring at home, however, it was notable that 12.1% stated their first exposure had occurred at school. Further details regarding circumstances of exposure are presented in Figure 2.

Figure 2. Location and Circumstances of First exposure to IP

3.2.2 Accidental or deliberate exposure?

Whilst over a quarter of respondents (28.3%) admitted their first exposure to IP was deliberate, more than a third (34.8%) were exposed accidentally when the material simply popped up on their screen. Many respondents recalled being shown the material by someone else for the first time and for some it was a shock, with 16.2% not expecting to see it. However, for just over half the sample, their initial exposure was deliberate and intentional. In terms of deliberate exposure, 42% reported this exposure occurred because they or the

person/s they were with searched for IP on a search engine, 13% entered a known IP address and 6.1% searched for IP on *YouTube* or another streaming site. In contrast, more than one in three respondents (36.8%) described their first exposure to IP as accidental; with themselves or the person/s they were with clicking on a link and an image/video opening unexpectedly, the material unexpectedly downloading through file sharing (1.6%), or being received through an unwanted email (0.4%). Overall, peer facilitation seems to play an important role in the initial exposure to IP for many respondents.

3.3 Affective Responses to IP at First & Current exposure

In terms of respondent's initial affective responses to IP, respondents were asked to select as many (or as few) affective responses they recalled feeling at the time. Most respondents recalled feeling curious (75.7%) and a large proportion also recalled feeling shocked (56.7%), excited (38.5%), nervous (37.2%) and turned on (34%). Figure 3 displays the percentage of respondents who selected each affective descriptor to describe their initial and current affective responses to IP.

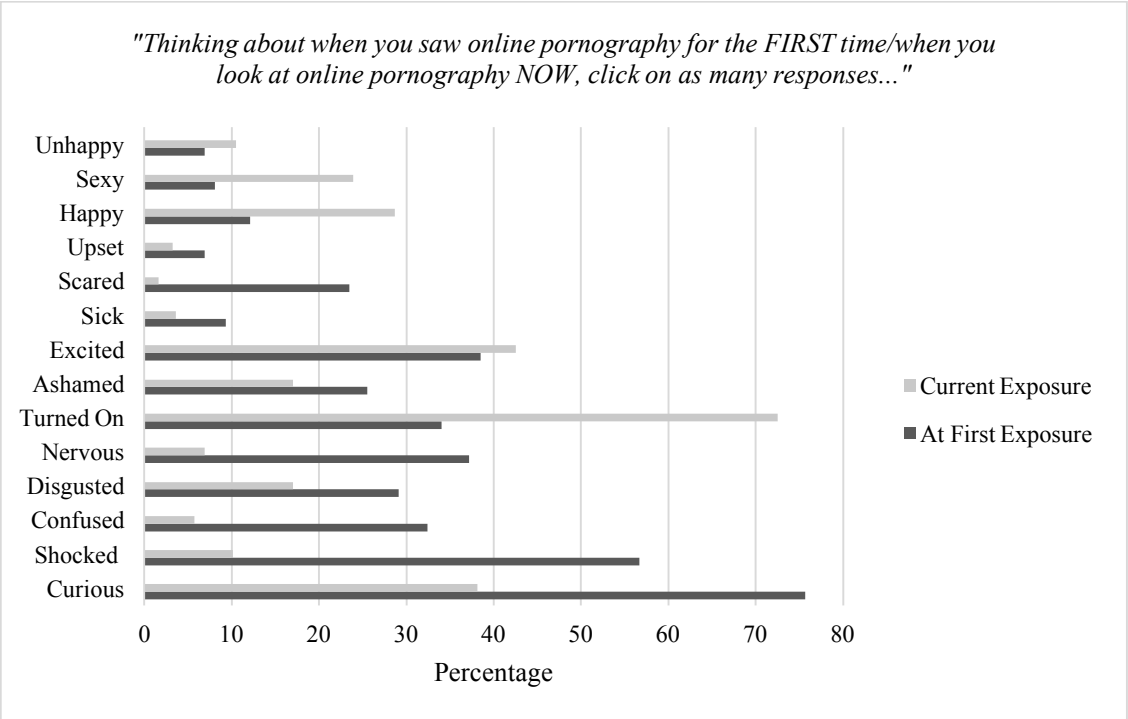

Figure 3. Affective responses to IP at First and Current exposure.

3.3.1 Paired Sample T-tests of Affective Responses at First and Current exposure.

Two paired sample T-tests were carried out to evaluate the relative positive and negative affective responses by respondents at first exposure to IP compared to their current exposure. There was a statistically significant decrease in *Negative Valence* scores from Initial (M=0.25, SD=0.20) to Current exposure to IP (M=0.08, SD=0.13), t (246) = 12.84, p < .001(two-tailed). The mean decrease in Negative Valence was 0.17 with a 95% confidence interval ranging from 0.14 to 0.19. The eta squared statistic (0.40) indicated a large effect size. Similarly, there was a statistically significant increase in *Positive Valence* from Initial (M=0.33, SD=0.26) to Current exposure (M=0.41, SD=0.30), t (246) = 3.65, p < .001(two-tailed). The mean increase in Positive Valence was 0.07 with a 95% confidence interval ranging from 0.03 to 0.11. The eta squared statistic (0.05) indicated a small to moderate effect size. This appears to suggest that respondents recall being more negative and less positive in their affective responses to IP when they were first exposed, compared to their current exposure. Notably, current IP use was associated with substantially greater reporting of feeling 'turned on', 'happy' and 'sexy', suggesting over time, IP is reported as becoming more sexually arousing and enjoyable.

3.4 Cognitive Responses to IP by Gender

Respondents were asked to indicate their level of agreement with thirteen evaluative statements of IP beginning with the sentence stem; "*Most online porn that I have seen was…*". To examine if there were any potential effects for gender, all the responses were explored for their endorsement by gender. The combined Agree/Strongly Agree percentages by gender are displayed in Figure 4 below.

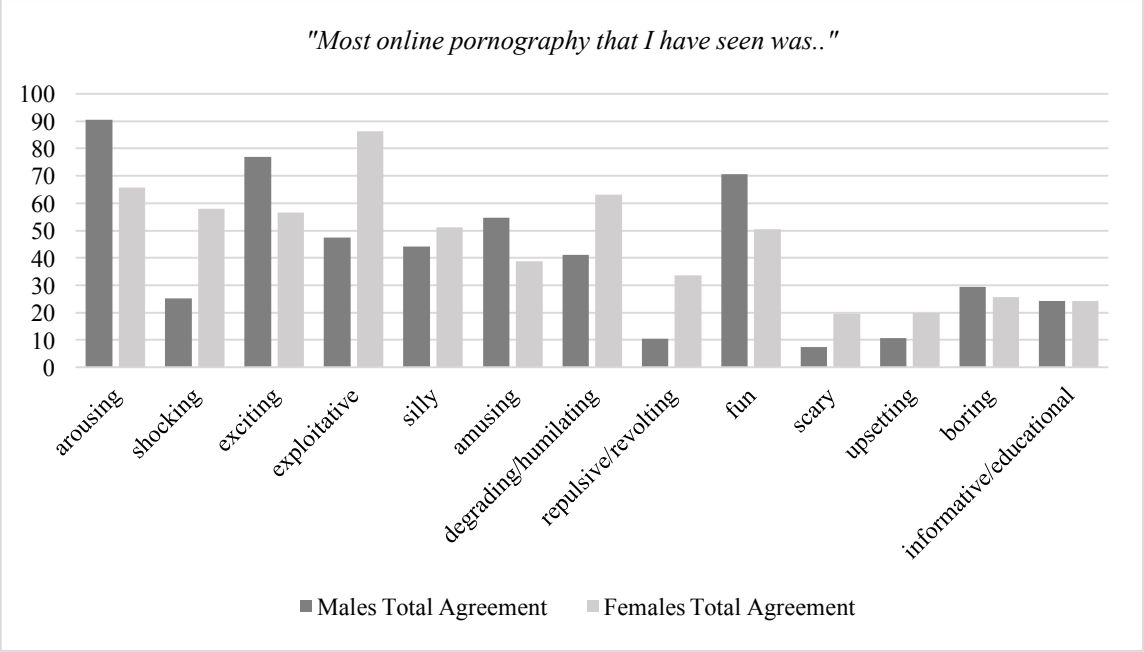

Figure 4. Cognitive responses to IP, levels of agreement and disagreement with evaluative statements of IP (Percentage of respondents selecting each descriptor). *Note*. It was possible to select more than one descriptor.

Overall, the data seems to suggest that whilst the strength of their agreement with positive statements might lag for females, a significant proportion rate IP as positively as males. However, it is notable that women tend to find IP less arousing, less exciting and less fun than males. Similarly, substantially higher percentages of females agree that IP is "exploitative" (86% vs 47%) and "degrading/ humiliating" (63% vs 41%). This suggests that overall, females are more negative and males are more positive in their cognitive assessments of IP. An Independent sample t-test (Table 1) was conducted to ascertain if there were any statistically significant gender differences in the mean *Negative Cognitive Response* scores for males and females. On average, female respondents have higher negative cognitive responses to IP.

Table 1. Results of t-test and Descriptive Statistics *Negative Cognitive Responses to IP* by Gender

Outcome	Group						95% CI for		
	Male			Female			Mean Difference		
	M	SD	n	M	SD	n		t	df
Negative Cog Responses	33.49	6.18	95	39.59	7.03	152	-7.82,-4.36	-6.94*	245

* $p < .001$.

3.5 Current Usage Patterns of IP

In terms of current usage patterns, most respondents (84.6%) reported that they had actively searched for IP since viewing it initially. Almost half of male respondents (49.4%) admitted to viewing IP either daily or several times a week, compared with 9.9% of females reporting the same frequency. Overall, female consumption was notably lower than male consumption (see Figure 5).

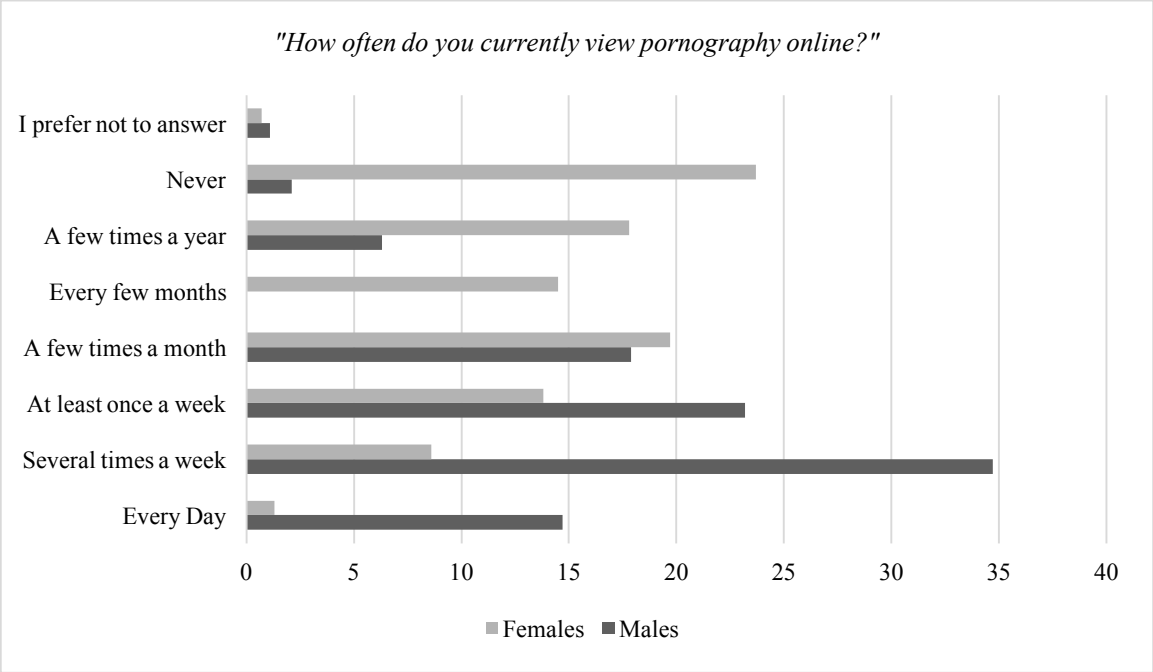

Figure 5. Current frequency of IP viewing by gender (Percentage).

3.6 General Attitudes to IP

In terms of their general attitudes to IP, respondents were asked to indicate their level of agreement with 18 general statements about IP, which comprised the scores for the *Harmful*, *Restrict* and *Positive* attitudes to IP scales. The descriptive statistics for each scale are represented in Table 2 below. Compared to the neutral point for the *Harmful* scale (24) the average respondent was generally neutral on whether IP was harmful. Compared to the neutral point on the *Positive* scale (18), the average respondent tended to slightly agree that IP has some positive attributes. Predictably, an examination of respondents who stated they

viewed IP every day (*n*=16) revealed they all had *Positive* scores of 20 or above. Although not directly comparable (the study did not assess IP), a previous study of university students that included an examination of attitudes to X-rated movies noted a mean on the *Harmful* scale of 32.72 for females and 28.99 for males and on the *Positive* scale, a mean of 21.91 for females and 24 for males (Lottes et al., 1993).

Compared to the neutral point on the *Restrict* scale (12), the average respondent tended to disagree that IP should be restricted. There were however some gender differences, with 37.5% of females and only 11.8% of males scoring higher than the neutral point on the *Restrict* scale. Previously noted means were 15.18 for females and 13.36 for males (Lottes et al., 1993). As detailed in Methods, the *Restrict* items were added to the *Harmful* items to calculate a *Total Negative Attitudes to IP* scale. For completeness however, the descriptive statistics for the original individual scales and the combined scale are reported below in Table 2. Only the combined *Negative Attitudes to IP* and *Positive* scale were utilised in further Bivariate and Regression analyses.

Table 2. Descriptive Statistics for Attitudes to IP scales.

	Minimum	Maximum	Mean	Std. Deviation
Attitudes that IP is *Harmful*	8.00	39.00	24.21	6.19
Attitudes that IP is *Positive*	10.00	30.00	22.27	3.22
Attitudes that IP should be *Restricted*	5.00	20.00	10.76	2.64
Total *Negative Attitudes* to IP (Harm plus Restrict)	11.00	53.00	30.85	7.50

Note. Higher scores on the scales indicate more harm attributed to, more positive effects of and more Restrictions sought for the Harmful, Positive and Restrict scales, respectively. Total Negative Attitudes to IP is a scale created by incorporating all the Harm and Restrict items into a single scale in recognition of the binary nature of attitudes to IP and to address reliability flaws in Restrict scale (Lottes, Weinberg & Weller, 1993).

3.6.1 Comparison of Means on Negative and Positive Attitudes to IP

Two Independent-samples t-tests were conducted to compare the average *Negative Attitudes to IP* and *Positive Attitudes to IP* scores for males and females. On the *Negative Attitudes to*

IP scale, there was a significant difference in scores for males (*M*=27.86, *SD*=7.55) and females (*M*=32.74, *SD*=6.85; *t* (179.43) = -5.03, p<.001, two-tailed). The magnitude of the differences in the means (mean difference = -4.88, 95% CI: -6.80 to -2.97 was moderate (eta squared = 0.10). On the *Positive Attitudes to IP scale*, there was a significant difference in scores for males (*M*=22.81, *SD*=2.66) and females (*M*=21.93, *SD*=3.50; *t* (243) = 2.11, p=.036, two-tailed). The magnitude of the differences in the means (mean difference = 0.88, 95% CI: .06 to 1.71 was small (eta squared = 0.02). This suggests on average, female attitudinal scores to IP are less positive and more negative than males. To further elucidate respondent attitudes to IP, individual item analysis was carried out on the individual attitudinal scales. Overall, whilst most (73.7%) female respondents and over half (53.2%) of male respondents agreed IP exploited women, few agreed that it should be restricted and most agreed IP had redeeming educational and sexual pressure relief benefits. Analysis of a selection of individual items by gender can be found in Appendix 1.

3.6.2 Association between Affective responses and General Attitudes to IP

It was notable that higher *Positive Valence scores at First exposure to IP* were significantly positively correlated with higher *Positive Valence scores at Current exposure to IP* and significantly negatively correlated with *Negative Valence at First exposure.* Higher *Positive Valence scores at First exposure to IP* were also significantly negatively correlated with *Negative Attitudes to IP* and positively correlated with *Positive Attitudes to IP*. Full results are presented in Table 4 and suggest a more positive affective response to IP is associated with forming a more positive attitude to it.

Table 4. Pearson Correlation Coefficients for Positive and Negative valence (First & Current exposure) and Attitudes to IP.

Measure	1	2	3	4	5	6
1. Positive Val (First)						
2. Negative Val (First)	-.26**					
3. Negative Att to IP	-.23**	.22**				
4. Positive Val (Curr)	.36**	-.01	-.22**			
5. Negative Val (Curr)	-.02	.27**	.27**	-.16*		
6. Positive Att to IP	.15*	-.13*	-.48**	.33**	-.18**	

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed)

3.6.3 Regression Analysis: Does a negative affective response to IP predict Negative Attitudes to IP, controlling for gender and Cognitions about IP?

A hierarchical regression was carried out to determine if *Negative valence at Current* and *First exposure* are predictive of *Negative Attitudes to IP* (*Harm* scale plus *Restrict* scale), after controlling for gender and *Negative Cognitive Responses to IP*. Preliminary analyses were conducted to ensure there were no violations of the assumptions of normality, linearity, multicollinearity and homoscedacity. *Negative valence at First exposure*, *Negative valence at Current exposure* and gender were entered at step 1, explaining 17.2% of the variance in *Negative Attitudes to IP*. After entry of *Negative Cognitive Responses to IP* at step 2, the total variance explained by the model was 33%, F (4, 233) = 28.70, $p < .001$. The control measure of Negative Cognitive Responses to IP explained an additional 15.8% of the variance in *Negative Attitudes to IP*, after controlling for *Negative Cognitive Responses to IP* and gender, R squared change = .16, F change (1, 233) = 54.96, $p < .001$. In the final model, only *Negative Cognitive Responses to IP* was significant (beta=.48, $p <.001$). This suggests that negative cognitions about IP are a more important predictor than any affective response to IP of the likelihood of having a negative attitude to IP.

3.7 Patterns in IP Usage: Compulsion, Isolation & Guilt

3.7.1 Compulsive viewing of IP.

The mean respondent score for the *Compulsive use of IP* scale was 24.42 (*Range*= 12-55; *SD*=7.90). Compared to a neutral point (neither agree or disagree) of 33, the average score indicates respondents are less likely to agree that their viewing of IP is uncontrollable. Individual item analysis however reveals that one in five males and just over one in ten females surveyed agreed (strongly agree plus agree) that IP has sometimes interfered with aspects of their life. Despite the majority indicating they have no problem with their use of IP, it is noteworthy that more than one in seven males and around one in twenty females "feel unable to stop their use of IP" and 15.8% of males and 4.7% of females believe they are "*addicted to IP*". Due to modification of scales for this study, no norms are available. The full results are presented in Figure 6

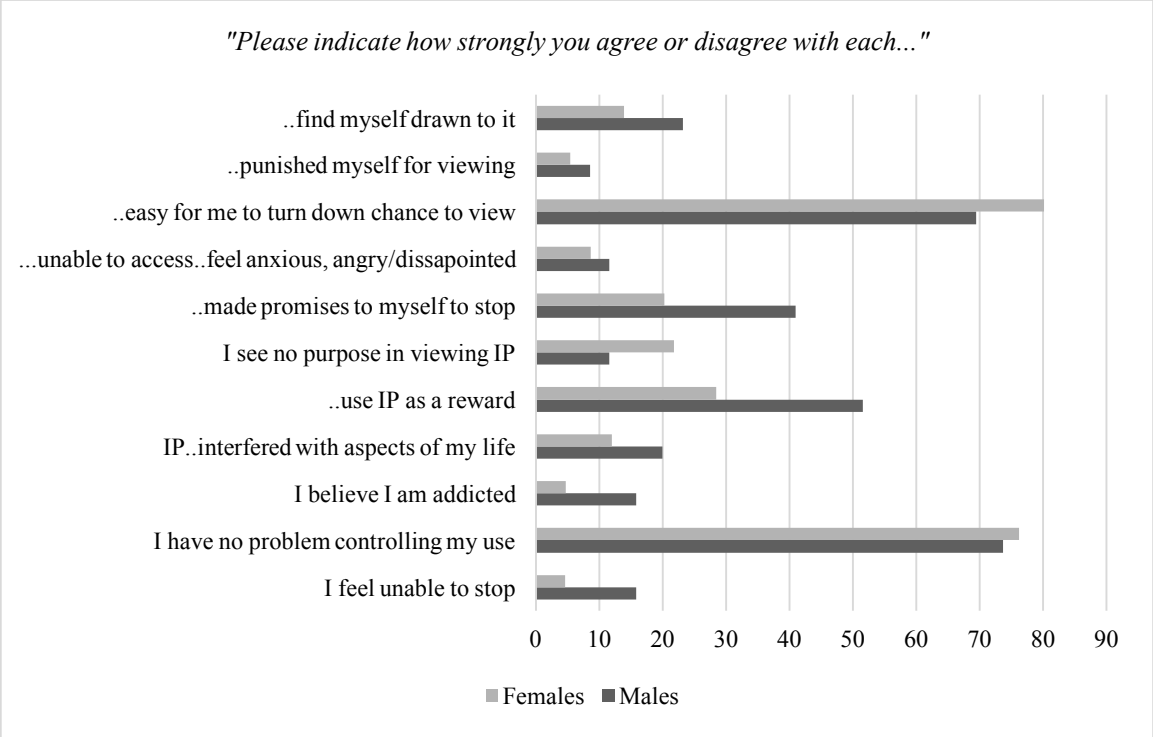

Figure 6. Percentage of Agreement (strongly agree plus agree) with Compulsive use of IP statements by gender.
Note. *N*= 245 (95 males and 150 females)

3.7.2 Isolation and IP viewing.

The mean respondent score for the *Isolation and use of IP* scale was 12.52 (*Range*= 4-20; *SD*=4.57). Compared to a neutral point (selection of "sometimes" for each item) of 12, the average score indicates respondents are only slightly likely to engage in isolating efforts in relation to their viewing of IP. Individual item analysis however revealed that over half (61.1%) of male respondents admit they *always* or *frequently* attempt to hide what is on their screen. Just under one third of male respondents (31.6%) also admit that they *frequently* or *always* have stayed up after midnight to access IP and 66% *frequently* or *always* masturbate while looking at IP. Although they demonstrate fewer of these isolating efforts, 57.4% of female respondents *always* or *frequently* attempt to hide what is on their screen and more than one in five (21.4%) admit they *always* or *frequently* stay up after midnight to view IP. A substantial proportion (40.3%) of female respondents likewise admit to *frequently* or *always* masturbating while viewing IP.

3.7.3 Guilt and IP viewing.

The mean respondent score for the *Guilt* subscale was 23.74 (*Range*= 11-44; *SD*=6.21). Compared to a neutral point (selection of "sometimes" for each item) of 22, this suggests respondents are experiencing some guilt in relation to their IP consumption. Individual item analysis by gender indicates that 12.6% of males and 22.6% of females admit they *frequently* or *always* "*feel ashamed after viewing IP*". Relatedly, 13.8% of male 8.2% of female respondents indicated they *always* "feel good after viewing IP". Interestingly, almost a third (29.9%) of female respondents and more than a quarter of male respondents (25.3%) indicated they *rarely* "*feel no negative emotions after viewing IP*", suggesting IP use is sustained despite subsequent negative emotions.

3.7.4 Comparisons of Means by Gender for Compulsion, Isolation and Guilt

To ascertain if there were any gender based differences in the mean Compulsion, Isolation and Guilt scores for respondents, Independent sample t-tests (Table 4) were conducted for each scale. Statistically significant differences were noted between genders for the average Compulsion and Isolation, but not the Guilt scores. This suggests males are more likely than females to use IP compulsively and engage in isolating efforts to view IP, but both genders experience similar levels of guilt concerning their IP consumption.

Table 4. Results of t-tests and Descriptive Statistics Compulsive, Isolation and Guilt scores by Gender

Outcome	Group						95% CI for Mean Difference		
	Male			Female					
	M	SD	n	M	SD	n		t	df
Compulsive	27.17	7.35	94	22.65	7.76	146	2.54, 6.50	4.50**	238
Isolation	14.15	3.39	94	11.48	4.93	146	1.61, 3.73	4.97**	236.95
Guilt	23.18	6.28	90	24.16	6.16	123	-2.68, 0.71	-1.14	211

** $p < .001$.

3.7.5 Bivariate Associations between patterns of usage and Attitudes to IP

The Pearson Correlation coefficients for the *Compulsion*, *Isolation* and *Guilt* subscales and their association with *Positive* and *Negative Attitudes to IP* are displayed in Table 5 below. Compulsiveness has a moderate positive association with both Isolating behaviours and Guilt. Guilt is also strongly positively associated with Negative Attitudes to IP and has a moderate negative correlation with Positive Attitudes to IP.

Table 5. Pearson Correlation Coefficients for Compulsion, Isolation, Guilt and Positive and Negative Attitudes to IP.

Measure	1	2	3	4	5
1. Total Compulsion score					
2. Total Isolation score	.31**				
3. Total Guilt score	.32**	-.04			
4. Positive Attitudes to IP	-.00	.40**	-.32**		
5. Negative Attitudes to IP	.09	-.29**	.52**	-.48**	

**. Correlation is significant at the 0.01 level (2-tailed).

3.7.6 Regression Analysis: Does a compulsive pattern of usage predict guilt experienced, controlling for gender and negative attitudes to IP?

A hierarchical regression was carried out to determine if *Compulsiveness* in viewing of IP predicted *Guilt* experienced, after controlling for gender and *Negative Attitudes to IP* (Harm plus Restrict scale). Preliminary analyses were conducted to ensure no violations of the assumptions of normality, linearity, multicollinearity and homoscedacity. Compulsiveness and gender were entered at step 1, explaining 13% of the variance in *Guilt*. After entry of *Negative Attitudes to IP* at step 2, the total variance explained by the model as a whole was 33.8%, F (3, 205) = 31.74, $p < .001$. The control measure of *Negative Attitudes to IP* explained an additional 21.1% of the variance in *Guilt*, after controlling for Compulsiveness and gender, R squared change = .21, F change (1, 205) = 34.85, $p < .001$. In the final model, only *Compulsiveness* and *Negative Attitudes to IP* were significant, with *Negative Attitudes to IP* recording a higher beta value (beta=.49, $p < .001$) than *Compulsiveness* (beta=.27, $p < .001$). This suggests that when holding gender constant, the individual's pattern of IP usage (in terms of whether it is becoming uncontrollable), is an important predictor of the guilt they are likely to experience. However, global negative attitudes to IP are the strongest predictor of participant's tendency to experience guilt.

3.8 Influence of IP on Sexual Beliefs & Enactment

3.8.1 The role of IP on Sexual Beliefs

Respondents were asked about the impact IP has had on their personal sexual beliefs, based on four statements. Based on a neutral point (no opinion) of 12, the average mean score of 9.1 indicated respondents tended to disagree that IP had affected their sexual beliefs. The descriptive statistics split by gender for each item in terms of total agreement (strongly agree plus agree) and disagreement (strongly disagree plus disagree) are displayed in Table 6.

Whilst there is majority disagreement with all the propositions, it is still notable that more than one in ten male respondents and almost a third of female respondents agree that IP has led them to believe that "*women* should sometimes be pressured into having sex in certain ways". This was also the only statement where there was a statistically significant difference in scores for males (M=1.95, SD=1.04) and females (M=2.32, SD=1.39; t (236.71) = -2.40, p<.05, two-tailed) with females more likely to agree with this statement. Interestingly, significantly fewer male and female respondents feel that men should be likewise pressured.

Table 6. Total Agreement and Disagreement by gender on Influence of IP on Sexual Beliefs

	Total Agreement Males	Total Agreement Females	Total *Disagreement* Males	Total *Disagreement* Females
IP has led me to believe that women should act in certain ways during sex.	22.1%	31.8%	68.4%	61%
IP has led me to believe that men should act in certain ways during sex.	31.6%	31.8%	61.1%	61.6%
IP has led me to believe that women should sometimes be pressured into having sex in certain ways.	12.6%#	28%#	77.9%	66.7%
IP has led me to believe that men should sometimes be pressured into having sex in certain ways.	17.9%	10%	70.5%	78.7%

Note. # denotes a gender difference significant at p<.05

3.8.2 Enactment of IP in sexual relationships

One of the possible suggested negative consequences of exposure to IP from an early age is the possibility that this will translate into attempts to emulate the practices observed (Martellozzo, 2016). Based on a neutral point (no opinion) of 27, the average enactment of IP

score of 20.5 (Range 9-45) indicates respondents disagree that they are enacting IP in their sexual relationships. However, individual item analysis (Table 7) revealed over half of the respondents feel viewing IP has led them to carry out some of what they have seen online in their sexual relationships. Importantly, more than a quarter of respondents noted that viewing IP has led them to be more physically aggressive in their intimate relationships, such as engaging in slapping or hitting during sex.

Table 7. Total Agreement and Disagreement on the Enactment of IP in sexual relationships

	Agreement	Disagreement
...has led me to enact some of what I have seen in my own sexual	61.6%	25.1%
...has led me to be more sexually aggressive in my own sexual...	9.7%	78.6%
...has led me to try more risky sexual activities in my own....	32.4%	54.7%
...has led me to be more physically aggressive in my own...	27.5%	55.1%
...has led me to be less interested in activities like kissing...	10.5%	79.3%
...has led me to prefer my sexual partners are more physically...	14.5%	73.6%
...has led me to feel less attracted/desiring of my current partner/s	7.3%	79.7%
...has led me to feel less attractive/desirable to my current partner/s	29.2%	59.6%
...has led me to prefer masturbation to this imagery over sexual contact...	11.4%	76.1%

3.8.3 Regression Analysis: Does holding a positive attitude to IP and integrating IP into sexual beliefs predict the tendency to enact IP?

A multiple linear regression (see Table 8) was calculated to predict *Enactment of IP in sexual relationships* from *Positive Attitudes to IP* and *Influence of IP on sexual beliefs*. A significant regression equation was found F (2, 238) = 53.28, p <.0005. *Influence of IP on Sexual Beliefs* and *Positive Attitudes to IP* explained 31% of the variance in *Enactment of IP*, with *Influence of IP on Sexual Beliefs* recording a higher beta. This suggests both the integration of IP into

personal sexual beliefs and holding a generally positive attitude to IP encourages individuals to try out some of what they have seen online in their sexual encounters offline.

Table 8. *Multiple Linear Regression Analyses predicting Enactment of IP From Positive Attitudes to IP and Influence of IP on Sexual Beliefs*

Variable	B	SE B	β	Sig.
Constant	6.60	2.50		.009
Positive Attitudes to IP	.30	.11	.15	.006
Influence of IP on sexual beliefs	.80	.08	.53	p<.0005

3.8.4 Regression Analysis: Does compulsive use of IP predict the tendency to enact IP, after controlling for integration of IP into sexual beliefs?

A hierarchical regression was also carried out to determine if Compulsiveness was predictive of *Enactment of IP in sexual relationships*, after controlling for *Influence of IP on sexual beliefs*. Preliminary analyses were conducted to ensure no violations of the assumptions of normality, linearity, multicollinearity and homoscedacity. *Compulsiveness* was entered at step 1, explaining 6.8% of the variance in *Enactment of IP*. After entry of *Influence of IP on sexual beliefs* at step 2, the total variance explained by the model as a whole was 30.4%, F (2, 231) = 50.33, $p < .001$. The control measure of *Influence of IP on Sexual Beliefs* explained an additional 23.6% of the variance in *Enactment of IP*, after controlling for *Compulsiveness*, R squared change = .24, F change (1, 231) = 78.27, $p < .001$. In the final model, both *Compulsiveness* and *Influence of IP on sexual beliefs* were significant, with Influence of IP on sexual beliefs recording a higher beta value (beta=.50, p <.001) than *Compulsiveness* (beta=.15, p=.01). This result suggests that the degree to which individuals integrated IP into their personal sexual beliefs was a stronger predictor of their tendency to enact IP than their compulsive use of IP alone. Thus, it appears that IP can influence both attitudes and beliefs and cognitive changes influence subsequent sexual behaviour.

3.9 Gender Role Beliefs & Acceptance of Relational Violence

The average *Gender Role beliefs* score was 48.38 (*Range*=21-64; *SD*=8.58), which is equivalent to the mean of 48.13 noted in a previous study of college students (Brown & Gladstone, 2012), indicating moderately feminist gender beliefs. On both the *Acceptance of Male on Female Violence* and *Acceptance of Female on Male Violence* (Foshee et al., 1992) subscales, scores ranged from 3-12 with mean scores of 3.33 (*SD*=1.14) and 3.56 (*SD*=1.41) respectively. Scores on the *Acceptance of General Dating Violence* (Foshee et al., 1992) subscale ranged from 5-20 with a mean of 5.89 (*SD*=2.12). These results are consistent with a recent study of US high school (grade 9-11) students, who displayed a similar pattern of attitudinal rejection of relational violence (Levesque, Johnson, Welch, Prochaska, & Paiva, 2016). Scores on all the Acceptance of violence measures were skewed to the left (modal score of 1.0) indicating a substantial rejection by respondents of attitudes supporting relational violence amongst respondents. However, as noted in section 3.8.2, more than a quarter of respondents indicated viewing IP has led them to be more physically aggressive in their intimate relationships, suggesting there may be a disconnect between what most participants endorsed as their values and how some participants behave in their sexual encounters.

3.9.1 Bivariate Associations between Gender Role Beliefs, acceptance of violence and compulsive use of IP

Pearson's Correlation (see Table 8) coefficients indicated higher feminist *Gender Role Beliefs* were significantly negatively correlated with *Acceptance of Male on Female violence*, *Acceptance of Female on Male Violence* and *Acceptance of General Dating Violence*, with all correlations approaching a moderate size. Higher feminist gender role beliefs were also moderately negatively associated with compulsive viewing of IP. *Acceptance of Female on Male violence* had a small, but significant correlation with *Compulsive viewing of IP*,

suggesting that individuals who compulsively view IP are more likely to endorse statements condoning female on male violence.

Table 8. *Pearson Correlation Coefficients for Acceptance of Male on Female, Acceptance of Female on Male and Acceptance of General Dating Violence and Gender Role Beliefs and Compulsiveness in viewing of IP*

Measure	1	2	3	4	5
1. Acceptance Male on Female Violence					
2. Acceptance of Female on Male Violence	.77**				
3. Acceptance General Dating Violence	.83**	.73**			
4. Gender Role Beliefs	-.27**	-.26**	-.28**		
5. Compulsiveness in viewing IP	.11	.15*	.10	-.31**	

**. p < .0005 *. p < .05

3.9.2 Regression Analysis: Do lower feminist gender role beliefs predict compulsive use of IP, controlling for isolating behaviours and enactment of IP?

A hierarchical multiple regression was used to assess the ability of gendered attitudes to predict compulsiveness after controlling for the use of isolating behaviours in the consumption of IP and enactment of IP in sexual relationships. Preliminary analyses were conducted to ensure no violations of the assumptions of normality, linearity, multicollinearity and homoscedacity. *Gender Role Beliefs* was entered at step 1, explaining 9.2% of the variance in *Compulsiveness in viewing of IP*. After entry of *Isolating* behaviours and *Enactment of IP in sexual relationships* at step 2, the total variance explained by the model as a whole was 22.5%, F (3, 230) = 22.28, p < .001. The control measures of *Isolating* behaviours and *Enactment of IP* explained an additional 13.3% of the variance in Compulsiveness, after controlling for *Isolating* behaviours and *Enactment of IP*, R squared change = .13, F change (2, 230) = 19.24, p < .001. In the final model, all the control measures remained significant, with the results detailed below in Table 9. This suggests that holding lower feminist beliefs, engaging in isolating behaviours to watch more IP and enacting IP in personal sexual relationships are all strong predictors of the tendency to use IP compulsively.

Table 9. *Multiple Linear Regression Analyses predicting Compulsiveness in viewing IP From Gender Role Beliefs, Isolating behaviours and Enactment of IP in sexual relationships*

Variable	B	SE B	β	Sig.
Constant	29.09	3.19		p<.001
Gender role beliefs	-.30	.05	-.32	p<.001
Enactment of IP	.16	.08	.13	p=.042
Isolating behaviours	.52	.11	.30	p<.001

3.10 Compulsive viewing of IP, enactment of IP and Dissociation

The mean DES-T (Waller, 2000) score noted in this study was 12.88 (percent of time respondent is experiencing a dissociative episode in their daily life) (Range 0-70%), with a modal score of 0%. An average score of 0 across items has been recorded amongst normal individuals in prior research (Waller et al., 1996), whilst a cut-off score of 20 has been noted to capture nearly 90% of cases of Dissociative Identity Disorder (DID) and Dissociative Disorder Not otherwise Specified (DDNOS) (Chu, 2011). These results suggest that whilst most respondents do not recall having any (or recall very few) dissociative experiences in their daily life, a small proportion of respondents are experiencing dissociative experiences comprising a reduced awareness of the environment. Examples of these types of experiences include daydreaming, getting lost in a good book, or traveling many kilometres on 'autopilot' with minimal recollection of the trip (Leavitt, 1999).

The top three statements endorsed by respondents in this study were; "*Some people find that in one situation they may act so differently compared to another situation that they feel almost as if they were two different people. (Click on what percentage of the time this happens to you)*" (*M*=22.8%); "*Some people have the experience of finding new things among their belongings that they do not remember buying...*" (*M*=14.2%) and "*Some people sometimes have the experience of feeling as though they are standing next to themselves or*

watching themselves do something and they actually see themselves as though they were looking at another person..." (*M*=14%).

3.10.1 Bivariate Associations Analysis: Is there an association between compulsiveness in viewing of IP, enactment of IP and the tendency to dissociate?

Pearson's Correlation coefficients found Compulsiveness in IP viewing and Dissociation were significantly positively correlated (r=.15; p<.05) as were Enactment and Dissociation (r=.15; p<.05). Similarly, Enactment of IP and Compulsiveness were significantly positively correlated (r=.26; p<.01).

3.11 Mediation Analysis

1. *Does guilt mediate the relationship between compulsive viewing of IP and dissociation?*

This analysis was driven by the hypothesis that a degree of dissociation is required to integrate the cognitive dissonance that respondents may experience while viewing explicit and often violent sexual imagery which simultaneously causes them to feel aroused and disturbed. To explore this complex relationship, a mediation analysis was carried out using SPSS and PROCESS (Hayes, 2014) to explore the relationship between compulsive viewing of IP and dissociation and to determine whether the guilt experienced in viewing IP mediates the relationship between these factors. In line with the recommendations of Darlington and Hayes (2017), unstandardised coefficients are reported. As Figure 7 illustrates, the unstandardised regression coefficient between *Compulsiveness* and *Guilt* was statistically significant, as was the unstandardised regression coefficient between *Guilt* and *Dissociation*.

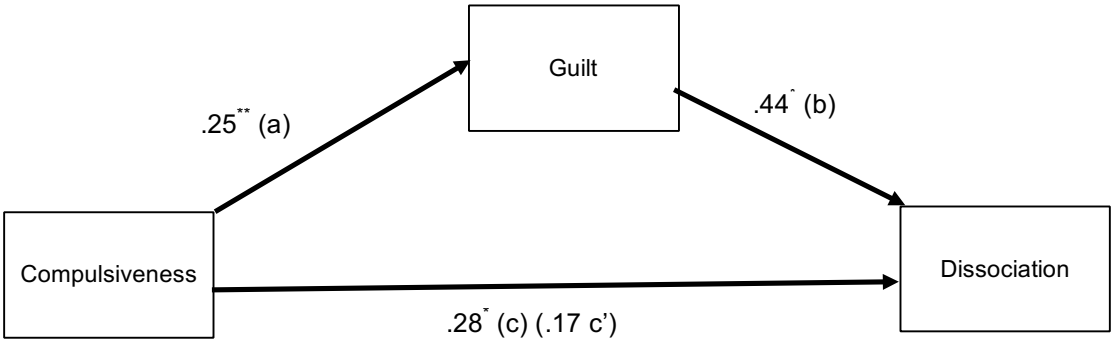

Figure 7. Unstandardised regression coefficients for the relationship between Compulsive viewing of IP and Dissociation as mediated by Guilt. The unstandardised regression coefficient between Compulsive viewing of IP and Dissociation, controlling for Guilt is in parentheses. **p<.001 *p<.05

The significance of this indirect effect was tested using bootstrapping procedures. Unstandardised indirect effects were computed for each of 2,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 5th and 95th percentiles. The bootstrapped unstandardized indirect effect was .11, and the 95% confidence interval ranged from .03 to .22. As this interval did not include zero, there was a significant indirect effect. The Sobel test for an indirect effect likewise, showed the indirect effect was statistically significant (Z=2.45, p=.01, κ^2=.11). The prediction of *Dissociation* from *Compulsiveness* was no longer significant when controlling for *Guilt*, (β=.17; t=1.45; p=.15), indicating that *Guilt* was a significant and substantial mediator (β=.44; t=2.94; p=.004) of the relationship between *Compulsiveness* and *Dissociation*.

2. *Does the influence of IP on sexual beliefs mediate the relationship between dissociation and enactment of IP in sexual relationships?*

A second mediation analysis was carried out using the same procedure to determine if the relationship between *Dissociation* and *Enactment of IP in sexual relationships* was mediated by *Influence of IP on Sexual Beliefs*.

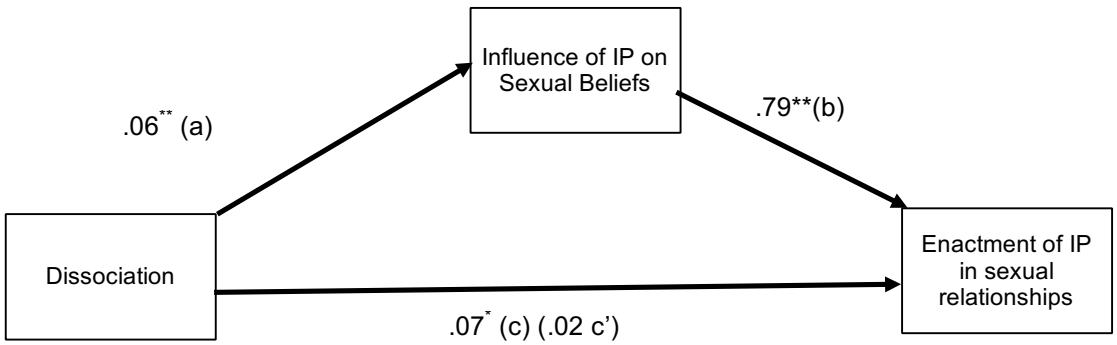

Figure 8. Unstandardised regression coefficients for the relationship between Dissociation and Enactment of IP as mediated by Influence of IP on Sexual Beliefs. The unstandardised regression coefficient between Dissociation and Enactment of IP, controlling for Influence of IP on Sexual Beliefs is in parentheses. **p<.001 *p<.05

As Figure 8 illustrates, the unstandardised regression coefficient between *Dissociation* and *Influence of IP on Sexual Beliefs* was statistically significant, as was the unstandardised regression coefficient between *Influence of IP on Sexual Beliefs and Enactment of IP*. The significance of this indirect effect was tested using bootstrapping procedures. Unstandardised indirect effects were computed for each of 2,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 5th and 95th percentiles. The bootstrapped unstandardized indirect effect was .05, and the 95% confidence interval ranged from .02 to .08. As this interval did not include zero, there was a significant indirect effect. The Sobel test for an indirect effect likewise, showed the indirect effect was statistically significant (Z=3.20, p=.001, κ^2=.05). The prediction of *Enactment of IP* from *Dissociation* was no longer significant when controlling for *Influence of IP on sexual Beliefs*, (β=.02; *t*=.83; *p*=.41), indicating that the *Influence of IP on Sexual beliefs* was not just a significant mediator (β=.79; *t*=9.48; *p*=.0000), but a substantial mediator of the relationship between dissociation and the enactment of IP in sexual relationships.

Discussion

The primary aim of this study was to explore the influence of IP on the sexual beliefs, attitudes and behaviours of emerging adults and to test the central hypothesis that IP is informing, altering and directing what arouses them and what they employ to arouse. As mainstream IP has adopted a relatively homogenous script involving female degradation and sexual aggression (Bridges et al., 2010; Sun et al., 2016), the potential of IP to encourage sexual callousness, sexual aggression and other forms of violence against women (Crabbe & Corlett, 2011) was also central to this study. Whilst a general acceptance of violence was readily disavowed by most emerging adults surveyed, this study was nevertheless concordant with previous studies that have found that frequent and routine viewing of IP may reinforce harmful gender stereotypes, contribute to young people forming unhealthy and sexist views of women and sex and augment sexually aggressive attitudes and behaviours (Crabbe & Corlett, 2011; Flood, 2009; Owens et al., 2012; Papadopoulos, 2010; Stanley et al., 2016). These findings also offer some new insights to the scant published literature examining the impact of IP on the sexual behaviour of contemporary emerging adults (Sun et al., 2016). Key insights include the high number of respondents who believe they may be addicted to IP, the substantial proportion who indicated IP has influenced their sexual beliefs and behaviours and the significant association between compulsive IP consumption, more traditional gender beliefs and an acceptance of relational violence.

4.1 RQ1: Are contemporary emerging adults being exposed to IP as young children and what are the circumstances of their exposure?

Consistent with prior studies, these findings indicate the consumption of IP begins early and is widespread (Chen et al., 2013; Flood, 2009; Martellozzo et al., 2016). Whilst most

respondents recalled their first exposure to IP occurring between 12 and 14 years of age, for just under a quarter it occurred between 9 and 11 years. This result is analogous to findings by Martellozzo et al. (2016) who similarly noted 65% of 15-16 year olds had seen IP, with 94% reporting their exposure had occurred by age 14. Prior Taiwanese and Australian studies likewise confirm the prevalence of adolescent exposure to IP (Chen et al., 2013; Fleming, Greentree, Cocotti-Muller, Elias, & Morrison, 2006). Consistent with prior studies (Fleming et al., 2006; Lim et al., 2017; Martellozzo et al., 2016; Peter & Valkenburg, 2006a), males in this sample tended to indicate earlier exposure to IP than females with all the male respondents already exposed to IP by the time they turned 16. Young men have also previously been found to be more likely than young women to use porn, to do so repeatedly and to view it alone and in same-sex groups (Buzzell, 2005; Flood, 2010).

Exposure for just over half of the respondents occurred alone with the next largest proportion exposed with a friend or friends. Prior research has confirmed that IP consumption is largely a solitary activity and in this context, it may be distinguishable from other exploratory behaviours that are predictable during emerging adulthood (Boies, 2002; Carroll et al., 2008; Goodson et al., 2001). It has also been suggested that "the solitary pattern of pornography use may contribute to its being more frequently carried over into young adulthood than peer-centred experimental behaviours", which makes the establishment of healthy behaviours around IP particularly salient (Carroll et al., 2008, p. 25). Although most respondents recalled their initial exposure as occurring at home or a friend's home, around one in ten respondents indicated their exposure occurred on school grounds. Consistent with previous findings, the high percentage of young people able to both unintentionally and intentionally expose themselves to IP at home, suggests an absence of Internet controls being used by many parents (Rideout, Roberts, & Foehr, 2005).

More than half of the respondents described their initial exposure to IP as intentional, which is comparable with the exposure rate of 58.7% noted by Chen et al. (2013) but higher than an earlier study by Wolak, Mitchell, and Finkelhor (2007), where 66% of respondents reported only *unwanted exposure* to IP in the prior year. Findings in this study reiterate previous insights and suggest IP use may be reasonably normative amongst young adults (Carroll et al., 2008; Hald, 2006; Janghorbani & Lam, 2003). These results also underscore IP as a key source of information about sexual matters for young adults (Buhi et al., 2009) with a high proportion of respondents describing IP as educative. Thus, intentional exposure may be partially driven by use of IP as an informal source of sexual education (Albury, 2014; Allen, 2006; Zillmann, 2000).

4.2 H1: Emerging adults will exhibit diminished negative emotional responsiveness to IP after repeated exposure to it.

A key objective of this study was to explore feelings evoked by IP and the subsequent development of attitudes and behaviours in relation to IP consumption. It was noteworthy that current IP use was associated with substantially higher levels of feeling 'turned on', 'happy' and 'sexy' compared to initial exposure, with a statistically significant increase in positive valence and a correspondingly statistically significant decrease in negative valence, between initial and current exposure to IP. This finding is consistent with a study by Martellozzo et al. (2016) where it was likewise noted that "...for those who continue to view it, young people report being less negative and generally less anxious or disgusted by pornography... there is some peer sharing of pornography and that, particularly for boys, there is a common idea that pornography is ubiquitous and 'normal' " (p. 34).

It is possible that the affective shift from first to current exposure noted in this study and others is being driven by a gradual *desensitisation* to the unpalatable aspects of IP (Paul,

2010; Zillmann, 2000), a process that has been found to also be associated with emotional desensitization and callousness toward domestic abuse victims (Mullin & Linz, 1995) and a greater likelihood to engage in the consumption of deviant IP (specifically bestiality or child based) (Seigfried-Spellar & Rogers, 2013). Frequent exposure to explicit sexual material has also been found to rapidly diminish adverse reactions such repulsion and disgust, and facilitate equally rapid development of unconstrained enjoyment reactions (Zillmann, 2000).

The apparent contradiction between the high proportion of respondents who described IP as degrading, humiliating and exploitative and the equally high proportion who described it as arousing and exciting, suggests a degree of cognitive dissonance operating within the viewers of IP as they attempt to reconcile imagery that simultaneously arouses and debases (Galatzer-Levy, 2012). Consistent with previous findings by Hald and Malamuth (2008), gender does not seem to divide opinions on the positive aspects of IP, with female respondents as likely as males to agree that IP has some constructive aspects. Female respondents were however, more likely to describe IP as exploitative, degrading/humiliating and repellent, and males were more likely to disagree with these statements. This is consistent with studies from the US, Norway and the UK, which indicated that females were less likely to describe IP as arousing and were more likely to describe it as repulsive, upsetting or shocking (Herrman & Bordner, 1983; Martellozzo et al., 2016; Træen et al., 2004).

4.3 RQ2: What are the ongoing IP usage patterns of contemporary emerging adults?

Findings in this study suggest that ongoing IP viewing is largely normative, particularly amongst males, with almost half of male respondents viewing IP either daily or several times a week. In contrast, only one in 10 female respondents indicated the same consumption pattern and almost a quarter indicated they never view IP. These findings are consistent with

previous studies which found that emerging adult men accepted and used pornography more frequently than emerging adult women (Carroll et al., 2008; Hald, 2006; Lim et al., 2017; Træen et al., 2004).

4.4 H2: Emerging adults will demonstrate ambiguity in their attitudes to IP, with few displaying strongly restrictive attitudes.

The general attitude of emerging adults to IP seems to be one of tolerant ambivalence, with the average respondent neutral on whether IP was harmful, tending to disagree that IP should be restricted and agree that IP has some positive attributes. This differs from the findings of Lottes et al. (1993) where two divergent attitudinal patterns characterized beliefs about sexually explicit materials: respondents either endorsed the view that sexually explicit materials were harmful, did not have positive effects, and should be restricted, or that they were not harmful, had positive effects, and should not be restricted for adults. Although not directly comparable, the average score on the *Harmful* scale was considerably lower than the mean noted by Lottes et al. (1993). However, a more recent qualitative study of young people's perceptions and experiences with pornography found a similar pattern of normalisation and ambivalence (Löfgren-Mårtenson & Månsson, 2010). Thus, it is likely that with the passage of almost 25 years, the stridency of views towards IP has mellowed, particularly amongst the generation of young people growing up in an increasingly sexualised and permissive media environment (Janghorbani & Lam, 2003; Papadopoulos, 2010).

Some apparent incongruity in responding was however noted; such as the large proportions of both female and male respondents who simultaneously agreed that IP exploits women and that it has redeeming value in its ability to teach sexual techniques and relieve sexual frustration. These findings are analogous to a Kinsey Institute study where 86% of respondents said pornography could educate people, despite 49% describing it as "offensive

and degrading" (Kinsey, 2002). Similarly, in a Canadian study of emerging adults, participants described utilising IP as an "all-inclusive sexual forum to learn more about the positive aspects of sexual health, in a context that they viewed as being devoid of alternatives" (Hare, Gahagan, Jackson, & Steenbeek, 2015, p. 269). There is no doubt that IP fulfils a current vacuum in frank, accessible sex information (Albury, 2014), but as one academic wryly articulates; "Learning about sex by watching porn is like learning to shoot a gun from watching Bruce Willis movies. Both are fantasy-based entertainment, and by following either one, somebody's bound to get hurt" (Ley, 2014).

Consistent with prior studies (Chen et al., 2013; Hald, 2006; Træen et al., 2006; Træen et al., 2004), this study did reveal some sex based attitudinal differences, with a small effect indicating that males are slightly more positive in their attitudes to IP and a more moderate effect size, indicating females are more negative in their attitudes to IP. The average respondent in this study also tended to disagree that IP should be restricted, and females were more likely to favour restriction than males. US, Finish, Norwegian, and Swedish studies have all previously found that women are more likely to favour restricting pornography than men (Herman & Border, 1983; Kontula & Haavio-Mannila, 1995; Lewin, 1997; Træen, Spitznogle, & Beverfjord, 2004).

The operation of perceptual bias may go some of the way to explain the reticence to restrict or acknowledge any harmful effects of IP. A study of US adults examining attitudes to censorship of pornography, found the reluctance to restrict pornography corresponded with respondent beliefs that others were more likely to be adversely affected by it than themselves, via the operation of the "third person effect" (Gunther, 1995, p. 27). Overall, it is unclear whether some of the contradictory attitudinal responses endorsed by respondents is due to the operation of perceptual bias or a general apathy to IP, because it simply amounts to more of

the same sexualised noise playing in the background of their sexual lives (Papadopoulos, 2010; Thornburgh & Lin, 2004).

4.5 RQ3: What drives altitudinal acceptance of IP? Are affective responses or cognitions about IP more salient?

The emotions experienced by individuals at the time of their first exposure seems to set the tenor of their subsequent emotional responses and general attitudes to IP. The bivariate associations between attitudes and affective responses indicate that positive affective responses to IP at initial exposure are significantly positively associated with positive affective responses in subsequent exposure and significantly positively associated with positive attitudes to IP overall. However, this emotional response is moderated when there is a negative cognitive assessment of IP, as suggested by the hierarchical regression (section 3.6.3) analyses undertaken. Relatedly, more frequent exposure to IP amongst adolescents has been found to result in greater liking of IP, which, in turn, elicited more distinct notions of women as sex objects (Peter & Valkenburg, 2009). The authors noted that these findings might explicate how IP impacts adolescents' sexual beliefs, their decision to view IP contingent on "the extent that it mirrors their sexual beliefs and elicits pleasant affects" (Peter & Valkenburg, 2009, p. 426).

One important cognitive factor to consider may be *perceived realism*. Namely, exposure to IP has been found to be associated with more recreational attitudes to sex, but this relationship was mediated by how realistic the participant perceived the material to be (Peter & Valkenburg, 2006b). For example, male adolescents perceived IP content as more realistic than female adolescents and used IP more than females, leading to greater perceived realism, which in turn was related to more permissive sexual attitudes (Peter & Valkenburg, 2006b). Thus, it may be that regardless of their emotional response, respondents who make

an initial negative cognitive assessment of IP in terms of whether they consider it an accurate and positive depiction of sexuality, form an ongoing negative attitude to IP. Consistent with gender mediated attitudes to IP noted in prior studies (Carroll et al., 2008; Chen et al., 2013; Hald, 2006), females on average, recorded higher negative cognitive responses to IP and their attitudinal scores to IP were less positive and more negative than males.

4.6 H3: Problematic IP Consumption will include aspects of Compulsion, Isolation & Guilt.

An important objective of this study was to ascertain the proportion of respondents using IP in a problematic way, to the detriment of their psychological and social wellbeing. As expected, most respondents in this sample did not identify themselves as addicted to IP, however more than three in twenty male respondents and around one in twenty female respondents identified that they felt "unable to stop" viewing IP, and around the same proportion were concerned they were "addicted to IP". There is limited existing literature on the compulsive use of IP in typical emerging adult populations as most studies focus on issues related to criminology and the clinical treatment of sexual compulsions (Carroll et al., 2008). Nevertheless, the rate of perceived addiction noted amongst male respondents is comparable with a study by Cooper, Delmonico, et al. (2000) where it was found that 17% of their sample of cybersex users met the criteria for problematic sexual compulsivity. The gender bias in compulsive IP viewing noted in this study is similar to findings in previous studies, with young males more likely than females to use IP repeatedly, to use it for sexual excitement and masturbation and to initiate its use with an intimate partner (Buzzell, Foss, & Middleton, 2006; Flood, 2010).

For compulsive IP users, their consumption appeared to be negatively impacting other aspects of their lives. For example, compulsive viewing of IP was associated with isolating

oneself to spend time looking for IP, losing sleep and engaging in guarded behaviours to view IP without detection. Male respondents were also more likely to engage in these isolating efforts to view IP. Previous studies have confirmed similar potential negative interpersonal consequences of IP addiction, including social isolation, worsening of sexual relationships with a spouse or partner, depression, career and other financial effects, and in some cases, legal consequences (Bostwick & Bucci, 2008; Cooper, Delmonico, et al., 2000; Delmonico & Miller, 2003; Schneider, 2000; Twohig et al., 2009).

Although respondents typically noted some negative aspects to IP, most reported feeling little shame after viewing IP, regardless of their gender. This result is consistent with the Kinsey report findings, where amongst those who reported using pornography, 80% said they "felt fine" about viewing it, with a minority indicating they felt "bad while using porn" (Kinsey, 2002). The hierarchical regression (3.7.6) also demonstrated that both compulsive viewing of IP and negative attitudes to IP were significant predictors of guilt experienced, with negative attitudes a stronger predictor in this model. This was coherent with a previous study that found the way an individual interacts with their urges to view pornography were related to whether viewing was perceived as problematic (Twohig et al., 2009). Relatedly, minimisation or denial of the damaging effects of compulsive IP consumption is a common reaction and it is likely this same disavowal is occurring to some extent in this study (Cooper, Delmonico, et al., 2000; Cooper, Scherer, et al., 1999; Hald & Malamuth, 2008).

4.7 H4: That individual sexual beliefs and behaviours will be guided and informed by IP scripts

It was hypothesised that IP and its aesthetics are guiding the sexual beliefs and behaviours of emerging adults, particularly around notions of sexual coercion, sexual activities and preferences. Whilst most respondents disagreed that consumption of IP has influenced their

personal sexual beliefs or behaviours, almost a third of respondents agreed that seeing IP has led them to believe that women and men should act in certain ways during sex. Consistent with a recent study that found an association between the perpetration of sexual coercion and regular viewing of IP (Stanley et al., 2016), more than one in ten respondents in this study believed men should sometimes be pressured into having sex in certain ways and around one in five believed the same pressure should be exerted on women. Interestingly, more women than men believed women should be compelled into a sexual activity. This finding is consistent with a study that showed early exposure of females to pornography was related to "rape fantasies" and attitudes supportive of sexual violence against women (Corne et al., 1992). The authors interpreted these findings in the context that "early contact with pornography exemplifies a broader socialisation process for some women that portrays sexual aggression as, to some extent, culturally desirable" (Corne et al., 1992, p. 458).

Similarly, although most respondents were less likely to agree that they are enacting IP in their sexual relationships, the majority agreed viewing IP has led them to carry out some of what they have seen online in their own relationships. For example, a substantial proportion are trying riskier sexual activities such as multiple partners and engaging in unprotected sex. Relatedly, more than one in ten respondents prefer their sexual partners physically resemble pornography actors/actresses with almost a third attributing feeling less attractive to their partner, to their own IP viewing. This phenomenon is increasingly noted, especially in relation to the preference for genital hairlessness (Crabbe & Corlett, 2011; Tiggemann & Hodgson, 2008).

These findings are also consistent with previous studies that have found an association between IP consumption and more sexually permissive beliefs and risky sexual behaviours (Braun-Courville & Rojas, 2009; Carroll et al., 2008; Harkness, Mullan, & Blaszczynski, 2015; Lo & Wei, 2005; Wright, 2011b, 2013). It was also found that both a

positive attitude to IP and the extent to which an individual has incorporated IP into their sexual beliefs were significant predictors of the tendency to enact IP in sexual relationships (3.8.3), with the influence of IP on sexual beliefs a stronger predictor of enactment. Likewise, compulsive viewing of IP and the extent to which an individual has incorporated IP into their sexual beliefs were both significant predictors of the enactment of IP (3.8.4), the incorporation of IP into sexual beliefs again, a stronger predictor of enactment of IP.

Concern is growing amongst policy makers and researchers alike that the ways young people comprehend and experience gender and sex are being influenced by what they, their partners or peers, observe in IP with a 'pornified aesthetic' pervading popular culture and enabling it to achieve a kind of normative legitimacy (Crabbe & Corlett, 2011; Doidge, 2007). Underpinning this porn aesthetic is a growing expectation to try almost anything portrayed in IP; "Young people are living in an era of new sexual expectations, acceptance and practices. And, significantly, porn is normalising sex acts that most women in the real world don't enjoy, and may find degrading, painful or violating (Crabbe & Corlett, 2011, p. 13). To explicate why such attitudes and emotions related to IP translate to sexual behaviour, several theories seem relevant. From the perspective of cultivation theory (Gerbner et al., 1994) the portrayal of casual, uncommitted sexual encounters, often with multiple partners, may encourage users to adopt more permissive and potentially deviant sexual beliefs themselves (Doidge, 2007; Häggström-Nordin, Hanson, & Tydén, 2005; Wright, 2013). From a learning perspective, IP is a potent teacher for both beliefs and behaviours because it offers both the perfect conditions and the rationalisations to facilitate social learning (Layden, 2010). That is, sexual behaviours are modelled by IP and easily imitated and are also paired with rewards and positive emotions (Hogben & Byrne, 1998).

4.8 H5: Compulsive use of IP will be associated with lower feminist beliefs and greater acceptance of relational violence.

A core finding in this study is the indication by more than a quarter of respondents that viewing IP has led them to be more physically aggressive in their intimate relationships. Similarly, one in ten respondents believe viewing IP has led them to be more sexually aggressive, such as demanding their partner performs acts they are uncomfortable with performing. Despite the substantial proportion of respondents admitting to what equates to sexual coercion, statements relating to an acceptance of violence in romantic relationships were only endorsed by a minority of respondents. Indeed, the average respondent had moderately feminist gender beliefs, a finding that was consistent with previous studies of undergraduates (Brown & Gladstone, 2012). Higher feminist gender role beliefs were also found to be negatively associated with all the acceptance of violence measures and with compulsiveness in viewing IP. In contrast, holding lower feminist beliefs, engaging in isolating behaviours when viewing IP and enacting IP in personal sexual relationships were all found to be strong predictors of the tendency to use IP compulsively (3.9.2). Similarly, greater acceptance of female on male violence was positively correlated with compulsive viewing of IP, suggesting that those who are viewing IP compulsively are also more likely to be accepting in their attitudes towards relational violence.

Together, these findings suggest that IP facilitates sexual aggression for a substantial amount of IP viewers, despite explicit attitudes that disapprove such behaviour, with compulsive IP viewers being more likely to be accepting of sexual aggression. A recent review of research on adolescent use of pornography found that pornography use tended to be linked with stronger gender-stereotypical sexual beliefs and more experience with sexual aggression, both as perpetrators and victims (Peter & Valkenburg, 2016). Although the average respondent in this study did not demonstrate gender stereotypical beliefs, links

between IP and sexual aggression were clearly found. Noteworthy is the finding that females were significantly more likely than males to endorse that IP has led them to believe that "*women* should sometimes be pressured into having sex in certain ways". This suggests an almost resigned acceptance that performing some sexual activities is just something women need to accept in order to please their partners (Crabbe & Corlett, 2011). The finding that a substantial number of respondents enacted sexual aggression viewed in IP, concords with many previous findings. Several experimental studies that involved exposing men to violent pornography have demonstrated an increase in sexual aggression and callousness (Check & Guloien, 1989; Donnerstein & Berkowitz, 1981; Malamuth et al., 2000; Mullin & Linz, 1995; Weisz & Earls, 1995), although some of these have been challenged for their ecological validity (Fisher, Kohut, Gioacchino, & Fedoroff, 2013). Similarly, a meta-analysis of nonexperimental studies is also concordant with an association between pornography use and attitudes supporting violence against women (Hald et al., 2010).

4.9 H6: Compulsive use of IP and the enactment of IP will be associated with a tendency to dissociative experiences

It was theorised that to watch IP and enact seen behaviours whilst also holding negative beliefs about some aspects of IP or about hurting women, requires some level of dissonance or dissociation. Analysis of the bivariate associations of the dissociation, compulsivity and enactment measures in this study, indicated that compulsive use of IP and dissociation were significantly positively correlated, as were enactment of IP and dissociation. Similarly, enactment of IP in sexual relationships and compulsiveness were significantly positively correlated. Likewise, the second mediation analysis (3.11) undertaken showed that the influence of IP on individual sexual beliefs was a substantial mediator of the relationship between dissociation and the enactment of IP in sexual relationships. These relationships

shed some light on the apparent disconnect between negative respondent attitudes and affective responses to IP and the tendency to nevertheless continue to regularly view IP.

It is suggested that within the fantasy subtype described by Cooper et al. (2004) is the "dissociating" user, who uses IP to fantasize about carrying out activities that might otherwise be unacceptable in their real lives, thus disconnecting them from reality. Given the association with enactment, it is possible that dissociating users of IP are more proficient in blurring the line between their sexual fantasies and reality and thus enact some of what they have seen online to achieve arousal, whilst at the same time disavowing any connection between the two experiences (Galatzer-Levy, 2012). The first mediation analysis undertaken also found that guilt experienced in relation to IP consumption, was a significant mediator in the prediction of dissociation from compulsive viewing of IP. This suggests that the individual's assessment of their IP consumption, in terms of the guilt they experience from this behaviour, predicts their tendency to employ dissociation to continue to compulsively view IP.

5.0 Implications

The results of this study suggest that holding a positive predisposition towards IP encourages individuals to view more IP, thereby immersing themselves further in an IP mediated worldview of sexual intimacy. This immersion conditions the individual to cultivate and assimilate the scripts depicted in IP. Whilst cultivation theory does not strictly extend past the cognitions of the individual, it has been suggested that the alteration of beliefs initiated by the positive portrayal of sexual aggression and violence, seemingly without consequences or sanction, should also support a shift in actual behaviour (Bleakley, Hennessy, Fishbein, & Jordan, 2008). The impetus to enact IP is both a public and personal health issue because of its depiction of risky sexual behaviour, sex with multiple partners, sexual aggression and

violence, humiliation of women and unachievable body ideals for both genders (Grudzen et al., 2009; Lo & Wei, 2005; Paul, 2010; Peter & Valkenburg, 2008; Peter & Valkenburg, 2011; Senn, 1993; Tylka, 2015).

The issue of IP increasing the likelihood of sexual aggression is particularly concerning. The results of this study suggest IP can inform and shape the tenor of relationships and the behaviour of individuals with their partners (Galatzer-Levy, 2012), and this could result in the behaviour of individuals being driven by a porn mediated script rather than the dynamic of their specific dyads. The endorsement of notions of sexual coercion and the indication that many young adults report that they are enacting aspects of IP whilst simultaneously assessing it as degrading and humiliating suggests either that emerging adults are partaking in activities that are contrary to their values or IP has become so enmeshed with how they understand contemporary sexuality, that they no longer feel there are any alternatives. Thus, it may be that the degrading and objectifying portrayal of women in most IP and the sexual aesthetics it depicts makes it more difficult for emerging adults to discover their own unique and authentic sexuality.

For women, this means accepting their portrayal as entities that exist for the sexual gratification of males, even when those gratifications include degradation and abuse (Crabbe & Corlett, 2011; Wright & Tokunaga, 2016). Studies of women's reactions to violent pornography reveal that such exposure is related to increased rape-supportive beliefs and fantasies, an increase in victim blaming and a corresponding reduction in perceived perpetrator responsibility (Corne et al., 1992; Cowan & Campbell, 1995). One possible mechanism underlying the connection between violent pornography exposure and increased acceptance of sexual aggression is sexual arousal (Davis, Norris, George, Martell, & Heiman, 2006). Thus, even when depicting acts of aggression or violence, IP is designed to be sexually arousing, thereby blurring the line between sexual pleasure and

pain, and women may find themselves sexual aroused in response to depictions of sexual violence against other women (Corne et al., 1992).

The image of male sexuality depicted in most IP is one of self-gratification and the perpetration of sexual degradation and violence, where sex is about pleasure but not necessarily in a mutual, respectful way (Crabbe & Corlett, 2011). For example, heterosexual anal sex, which research indicates most women offline do not desire or enjoy has been found to be more common among high consumers of IP (Fahs & Gonzalez, 2014; Lim et al., 2016; Rogala & Tydén, 2003). Thus, young men are often "surprised that what they are mimicking from porn is not what women like or want" (Crabbe & Corlett, 2011, p. 14). Most of the men in this study readily disavowed violence against women and around half agreed IP was degrading and exploitative but most still found it arousing. It is unclear whether men also feel that there are no alternatives other than a porn mediated script of sexual behaviour. It is also possible that the designation of IP as a contemporary cultural artefact, the personal meaning of which can be readily disavowed, is also in operation for some, particularly compulsive viewers of IP (Galatzer-Levy, 2012).

Given the increasingly violent and degrading tenor of IP and the early age at which most young adults recalled being exposed, it is notable that these findings also suggest a complete absence of the use of Internet filters in most homes or schools. Thus, one relatively simple step that could be taken to reduce the contact children and adolescents have with this material is to utilise filters to block it (McDougall, 2016). Whilst there are obvious cost implications, this is a step that should be considered by both schools and parents. Internet restrictions alone however, are usually insufficient and significant differences in online safety practices have been noted amongst young people whose parents have not discussed Internet safety with them (Fleming et al., 2006). At a fundamental level, parents and educators must adopt a more open and inclusive approach to developing IP literacy programs, which

necessarily requires recognising young people's need for both frank explanations and explicit, but consensual imagery of sexual activities (Allen, 2006). Undoubtedly, IP is fulfilling a current vacuum in sex information and it is also clear that young people need to be made aware of the potential impact IP might have on their attitudes and behaviours (Fleming et al., 2006). A nation-wide IP education program, delivered online or in person, would go some of the way to fill this vacuum. It is vital that we equip young people with the strategies they need to understand and critically evaluate IP images and messages, and encourage them to develop the healthy sexual norms and practical skills that will safeguard them from disturbing explicit material.

5.1 Strengths and Limitations of this study

Research on the impact of survey mode on the reporting of sensitive behaviour has shown that anonymous computer mediated survey methods elicit more accurate reporting than other surveys modes (Mustanski, 2001; Tourangeau & Smith, 1996) and this study has likely captured a reasonably accurate depiction of sensitive behaviours in the sample surveyed. The almost normative acceptance of sexual coercion and the ambivalence that many young adults demonstrate to IP, were particularly salient findings in an understudied area of sexual development research. This study also provided some new insights into the inculcation of IP beliefs and the enactment of IP in sexual relationships, with its purpose-built scales which achieved acceptable levels of reliability. Further validation studies are required however, to assess the effectiveness of these scales at measuring the purported constructs. A further limitation of this study is that the sample represents a specific population of undergraduate students, which limits the generalizability of the results, and further studies using a wider cross section of adults are warranted. It would also be useful to gain more qualitative insights

into how young adults feel about some of the sexual activities they carry out after viewing IP and whether they individually feel these are sexual choices they are making freely.

5.2 Conclusion

The potential for IP to provide a skewed and readily accessible heuristic model for decision-making in sexual relations is a concern raised both in this and previous studies (Byers, 1996; Galatzer-Levy, 2012; Sun et al., 2016; Weinberg et al., 2010). Notwithstanding the correlational nature of this study, which necessarily precludes attributions of causality, key findings related to the substantial number of respondents who felt they were addicted to IP, the high number of respondents who admitted their sexual behaviour had been changed by their IP use, and the small but robust link with sexual aggression, make this an important study about a growing social phenomenon. At best, IP is a poor pantomime of sexual relations and an unbalanced source of sexual education. At worst, it is a distorted cultural edifice that reminds us that no matter how far we think we have progressed in achieving equality and respect for women, contemporary IP reminds us just how far we still must go.

References

(FSM), F. S. M. (2007). Pornography Statistics: 2006 Worldwide Pornography Revenues. from Family Safe Media http://familysafemedia.com/pornography_statistics.html - anchor1

ACMA. (2015). Australians get Mobile. Retrieved from acma.gov.au website: http://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Australians-get-mobile

Albury, K. (2014). Porn and sex education, porn as sex education. *Porn Studies, 1*(1-2), 172-181. doi:10.1080/23268743.2013.863654

Allen, L. (2006). "Looking at the Real Thing": Young men, pornography, and sexuality education. *Discourse: Studies in the Cultural Politics of Education, 27*(1), 69-83. doi:10.1080/01596300500510302

Arnett, J. J. (2006). *Emerging Adulthood: Understanding the New Way of Coming of Age*: American Psychological Association.

Atkinson, R., & Rodgers, T. (2016). Pleasure Zones and Murder Boxes: Online Pornography and Violent Video Games as Cultural Zones of Exception. *British Journal Of Criminology, 56*(6), 1291-1307. doi:10.1093/bjc/azv113

Beck, A. T. (1999). *Prisoners of hate: the cognitive basis of anger, hostility, and violence.* . New York: Harper Collins.

Bernstein, E. M., & Putnam, F. W. (1986). Development, Reliability, and Validity of a Dissociation Scale. *The Journal of Nervous and Mental Disease, 174*(12), 727-735. doi:10.1097/00005053-198612000-00004

Binik, Y. M. (2001). Sexuality and the Internet: Lots of Hyp(otheses)--Only a Little Data. *Journal of Sex Research, 38*(4), 281. doi:10.1080/00224490109552098

Bleakley, A., Hennessy, M., Fishbein, M., & Jordan, A. (2008). It Works Both Ways: The Relationship Between Exposure to Sexual Content in the Media and Adolescent Sexual Behavior. *Media Psychology, 11*(4), 443-461. doi:10.1080/15213260802491986

Boies, S. C. (2002). University students' uses of and recreations to online sexual information and entertainment: Links to online and offline sexual behavior. *Canadian Journal of Human Sexuality, 11*, 77-89.

Bostwick, J. M., & Bucci, J. A. (2008). Internet Sex Addiction Treated With Naltrexone. *Mayo Clinic Proceedings, 83*(2), 226-230. doi:10.1016/S0025-6196(11)60846-X

Braun, B. (1988). The BASK (behavior, affect, sensation, knowledge) model of dissociation. *Dissociation, 1*, 16-23.

Braun-Courville, D. K., & Rojas, M. (2009). Exposure to Sexually Explicit Web Sites and Adolescent Sexual Attitudes and Behaviors. *Journal of Adolescent Health, 45*(2), 156-162. doi:http://dx.doi.org/10.1016/j.jadohealth.2008.12.004

Bridges, A. J., Wosnitzer, R., Scharrer, E., Sun, C., & Liberman, R. (2010). Aggression and Sexual Behavior in Best-Selling Pornography Videos: A Content Analysis Update (Vol. 16, pp. 1065-1085).

Brown, J. D., & L'Engle, K. L. (2009). X-rated: sexual attitudes and behaviors associated with U.S. early adolescents' exposure to sexually explicit media.(Author abstract)(Report). *Communication Research, 36*(1), 129. doi:10.1177/0093650208326465

Brown, M. J., & Gladstone, N. (2012). Development of a Short Version of the Gender Role Beliefs Scale. *International Journal of Psychology and Behavioural Sciences, 2*(5), 154-158. doi:10.5923/j.ijpbs.2120205.05

Buhi, E. R., Daley, E. M., Fuhrmann, H. J., & Smith, S. A. (2009). An Observational Study of How Young People Search for Online Sexual Health Information. *Journal of American College Health, 58*(2), 101-111. doi:10.1080/07448480903221236

Buzzell, T. (2005). Demographic characteristics of persons using pornography in three technological contexts. *Sexuality & Culture, 9*(1), 28. doi:10.1007/BF02908761

Buzzell, T., Foss, D., & Middleton, Z. (2006). Explaining Use of Online Pornography: A Test of Self-Control Theory and Opportunities for Deviance. *Journal of Criminal Justice and Popular Culture, 13*(2), 96-116.

Byers, E. S. (1996). How well does the traditional sexual script explain sexual coercion? Review of a program of research. *Journal of Psychology and Human Sexuality, 8*, 7-25. doi:https://doi.org/10.1300/J056v08n01_02

Cadzow, J. (2011, 24 October). Sex sells: the business of pleasure. *Executive Style*. Retrieved from http://www.executivestyle.com.au/sex-sells-the-business-of-pleasure-1mfhf - ixzz4ySsQUwOt

Carlson, E. B., & Putnam, F. W. (1993). An update on the Dissociative Experience Scale. *Dissociation, 6*(1), 16-27. doi:0896-2863

Carroll, J. S., Padilla-Walker, L. M., Nelson, L. J., Olson, C. D., McNamara Barry, C., & Madsen, S. D. (2008). Generation XXX: Pornography Acceptance and Use among Emerging Adults. *Journal of Adolescent Research, 23*(1), 6-30. doi:10.1177/0743558407306348

Chaney, M. P., & Chang, C. Y. (2005). A Trio of Turmoil for Internet Sexually Addicted Men Who Have Sex with Men: Boredom Proneness, Social Connectedness, and Dissociation. *Sexual addiction & compulsivity, 12*(1), 3-18. doi:10.1080/10720160590933671

Chaney, M. P., & Dew, B. J. (2003). Online Experiences of Sexually Compulsive Men Who Have Sex with Men. *Sexual addiction & compulsivity, 10*(4), 259-274. doi:10.1080/713775414

Check, J. V. P., & Guloien, T. H. (1989). The effects of repeated exposure to sexually violent pornography, nonviolent dehumanizing pornography, and erotica. In D. Zillmann & J. Bryant (Eds.), *Pornography: Research Advances and Policy Considerations* Hillsdale, NJ: Erlbaum.

Chen, A.-S., Leung, M., Chen, C.-H., & Yang, S. C. (2013). Exposure to Internet pornography among Taiwanese adolescents.(Report). *Social Behavior and Personality: an international journal, 41*(1), 157. doi:10.2224/sbp.2013.41.1.157

Chu, J. A. (2011). *Rebuilding shattered lives : treating complex PTSD and dissociative disorders / James A. Chu* (2nd ed. ed.). Hoboken, N.J.: Hoboken, N.J. : John Wiley & Sons.

Cooper, A. (1994). Sexual addiction & compulsivity: the journal of treatment and prevention. *Sexual addiction & compulsivity*.

Cooper, A. (1998). Sexuality and the Internet: Surfing into the new millennium. *Cyberpsychology and Behaviour, 1*(2), 181-187. doi:http://dx.doi.org/10.1089/cpb.1998.1.187

Cooper, A., Delmonico, D., Griffin-Shelley, E., & Mathy, R. M. (2004). Online Sexual Activity:An Examination of Potentially Problematic Behaviors. *Sexual addiction & compulsivity, 11*(3), 129-143. doi:10.1080/10720160490882642

Cooper, A., Delmonico, D. L., & Burg, R. (2000). Cybersex users, abusers, and compulsives: New findings and implications. *Sexual addiction & compulsivity, 7*(1-2), 5-29. doi:10.1080/10720160008400205

Cooper, A., McLoughlin, I. P., & Campbell, K. M. (2000). Sexuality in Cyberspace: Update for the 21st Century. *CyberPsychology & Behavior, 3*(4), 521-536. doi:10.1089/109493100420142

Cooper, A., Putnam, D. E., Planchon, L. A., & Boies, S. C. (1999). Online sexual compulsivity: Getting tangled in the net. *Sexual addiction & compulsivity, 6*(2), 79-104. doi:10.1080/10720169908400182

Cooper, A., Scherer, C. R., Boies, S. C., & Gordon, B. L. (1999). Sexuality on the Internet: From Sexual Exploration to Pathological Expression. *Professional Psychology: Research and Practice, 30*(2), 154-164. doi:10.1037/0735-7028.30.2.154

Coopersmith, J. (2006). Does Your Mother Know What You Really Do? The Changing Nature and Image of Computer-Based Pornography. *History and Technology, 22*(1), 1-25. doi:10.1080/07341510500508610

Corne, S., Briere, J., & Esses, L. M. (1992). Women's Attitudes and Fantasies about Rape as a Function of Early Exposure to Pornography. *Journal of Interpersonal Violence, 7*(4), 454-461. doi:10.1177/088626092007004002

Cowan, G., & Campbell, R. R. (1995). Rape causal attitudes among adolescents. *Journal of Sex Research, 32*(2), 145-153. doi:10.1080/00224499509551784

Crabbe, M., & Corlett, D. (2011). Eroticising inequality: Technology, pornography and young people. *Redress, 20*(1), 11-15.

Crabbe, M., & Corlett, D. (2014). Love and Sex in an Age of Pornography. *Reality and Risk Project.* Retrieved from http://www.itstimewetalked.com.au/resources/love-and-sex/

Darlington, R. B., & Hayes, A. F. (2017). *Regression Analysis and Linear Models Concepts, Applications, and Implementation*. New York: Guilford Press.

Davis, K. C., Norris, J., George, W. H., Martell, J., & Heiman, J. R. (2006). Rape-Myth Congruent Beliefs in Women Resulting from Exposure to Violent Pornography:

Effects of Alcohol and Sexual Arousal. *Journal of Interpersonal Violence, 21*(9), 1208-1223. doi:10.1177/0886260506290428

Delmonico, D., & Miller, J. (2003). The Internet Sex Screening Test: A comparison of sexual compulsives versus non-sexual compulsives. *Sexual and Relationship Therapy, 18*(3), 261-276. doi:10.1080/1468199031000153900

Doidge, N. (2007). *The brain that changes itself : stories of personal triumph from the frontiers of brain science / Norman Doidge*. New York: New York : Viking.

Donnerstein, E., & Berkowitz, L. (1981). Victim reactions in aggressive erotic films as a factor in violence against women. *Journal of Personality and Social Psychology, 41*(4), 710-724. doi:10.1037/0022-3514.41.4.710

Döring, N. M. (2009). The Internet's impact on sexuality: A critical review of 15 years of research. *Computers in Human Behavior, 25*(5), 1089-1101. doi:http://dx.doi.org/10.1016/j.chb.2009.04.003

Fahs, B., & Gonzalez, J. (2014). The front lines of the "back door": Navigating (dis)engagement, coercion, and pleasure in women's anal sex experiences. *Feminism & Psychology, 24*(4), 500-520. doi:10.1177/0959353514539648

Field, A. (2000). *Discovering Statistics using SPSS for windows*. London: Sage Publications.

Field, A. (2009). *Discovering Statistics using SPSS*. London: Sage Publications.

Fisher, W., Kohut, T., Gioacchino, L., & Fedoroff, P. (2013). Pornography, Sex Crime, and Paraphilia. *Current Psychiatry Reports, 15*(6), 1-8. doi:10.1007/s11920-013-0362-7

Fisher, W. A., & Barak, A. (2001). Internet pornography: A social psychological perspective on internet sexuality. *Journal of Sex Research, 38*(4), 312-323. doi:10.1080/00224490109552102

Fleming, M., Greentree, S., Cocotti-Muller, D., Elias, K., & Morrison, S. (2006). Safety in Cyberspace: Adolescents' Safety and Exposure Online. *Youth and Society, 38*(2), 135-154. doi:10.1177/0044118X06287858

Flood, M. (2007). Exposure to pornography among youth in Australia. *Journal of Sociology, 43*(1), 45-60. doi:10.1177/1440783307073934

Flood, M. (2009). The harms of pornography exposure among children and young people. *Child Abuse Review, 18*(6), 384-400. doi:10.1002/car.1092

Flood, M. (2010). Young Men Using Pornography. In K. Boyle (Ed.), *Everyday pornography*. New York, NY: Routledge.

Flood, M., & Hamilton, C. (2003). *Youth and pornography in Australia: Evidence on the extent of exposure and likely effects*. Canberra: The Australia Institute.

Foshee, V., Fothergill, K., & Stuart, J. (1992). *Results from the teenage dating abuse study conducted in Githens Middle School and Southern High School*. Retrieved from Chapel Hill, NC:

Foshee, V., Linder, F., MacDougall, J. E., & Bangdiwala, S. (2001). Gender differences in the longitudinal predictors of adolescent dating violence. *Preventive Medicine, 32*, 128-141. doi:10.1006/pmed.2000.0793

Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experience and mental health risks. *Psychology of Women Quarterly, 21*, 173–206. doi:doi:10.1111/j.1471-6402.1997.tb00108.x.

Frischholz, E. J., Braun, B. C., Sachs, R. C., Hopkins, L., Schaeffer, D. M., Leavitt, F., . . . Schwartz, D. R. (1990). The Dissociative Experiences Scale: Further replication and validation. *Dissociation, 11*(3), 151-153.

Galatzer-Levy, R. M. (2012). Obscuring Desire: A Special Pattern of Male Adolescent Masturbation, Internet Pornography, and the Flight From Meaning. *Psychoanalytic Inquiry, 32*(5), 480-495. doi:10.1080/07351690.2012.703582

Gerbner, G. (1998). Cultivation Analysis: An Overview. *Mass Communication and Society, 1*(3-4), 175-194. doi:10.1080/15205436.1998.9677855

Gerbner, G., Gross, L., Jackson-Beeck, M., Jeffries-Fox, S., & Signorielli, N. (1978). Cultural Indicators: Violence Profile No. 9. *Journal of Communication, 28*(3), 176-207. doi:10.1111/j.1460-2466.1978.tb01646.x

Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1994). Growing up with television: The cultivation perspective. In J. Bryant & D. Zillmann (Eds.), *Media Effects* (pp. 17–41). Hillsdale, NJ: : Erlbaum.

Giesbrecht, T., Merckelbach, H., & Geraerts, E. (2007). The dissociative experiences taxon is related to fantasy proneness. *J Nerv Ment Dis, 195*(9), 769-772. doi:10.1097/NMD.0b013e318142ce55

Glass, J. (2014, 02/14/2014). 8 Ways Porn Influenced Technology *Thrilist*. Retrieved from https://www.thrillist.com/vice/how-porn-influenced-technology-8-ways-porn-influenced-tech-supercompressor-com

Goodson, P., McCormick, D., & Evans, A. (2001). Searching for Sexually Explicit Materials on the Internet: An Exploratory Study of College Students' Behavior and Attitudes. *The Official Publication of the International Academy of Sex Research, 30*(2), 101-118. doi:10.1023/A:1002724116437

Gravetter, F., & Wallnau, L. (2014). *Essentials of statistics for the behavioral sciences* (Eighth ed.). Belmont: Wadsworth.

Gridley, H. (2016). *Submission to the Senate Environment and Communications References Committee Inquiry into the harm being done to Australian children through access to*

pornography on the internet. Retrieved from Melbourne, VIC: http://www.psychology.org.au/Assets/Files/APS_Submission_on_harm_to_Australian_children_accessing_pornography.pdf

Grubbs, J. B., Sessoms, J., Wheeler, D. M., & Volk, F. (2010). The Cyber-Pornography Use Inventory: The Development of a New Assessment Instrument. *Sexual addiction & compulsivity, 17*(2), 106-126. doi:10.1080/10720161003776166

Grubbs, J. B., Volk, F., Exline, J. J., & Pargament, K. I. (2015). Internet pornography use: perceived addiction, psychological distress, and the validation of a brief measure. *Journal Of Sex & Marital Therapy, 41*(1), 83-106. doi:10.1080/0092623X.2013.842192

Grudzen, C. R., Elliott, M. N., Kerndt, P. R., Schuster, M. A., Brook, R. H., & Gelberg, L. (2009). Condom Use and High-Risk Sexual Acts in Adult Films: A Comparison of Heterosexual and Homosexual Films. *American Journal of Public Health, 99* (Suppl 1), S152-S156. doi:10.2105/AJPH.2007.127035

Gunther, A. (1995). Overrating the X-Rating:The Third Person Perception and Support for Censorship of Pornography. *Journal of Communication, 45*(1), 27-38.

Häggström-Nordin, E., Hanson, U., & Tydén, T. (2005). Associations between pornography consumption and sexual practices among adolescents in Sweden. *International Journal of STD and AIDS,, 16*(107-107).

Hald, G. (2006). Gender Differences in Pornography Consumption among Young Heterosexual Danish Adults. *The Official Publication of the International Academy of Sex Research, 35*(5), 577-585. doi:10.1007/s10508-006-9064-0

Hald, G. M., & Malamuth, N. M. (2008). Self-Perceived Effects of Pornography Consumption. *The Official Publication of the International Academy of Sex Research, 37*(4), 614-625. doi:10.1007/s10508-007-9212-1

Hald, G. M., Malamuth, N. M., & Yuen, C. (2010). Pornography and attitudes supporting violence against women: revisiting the relationship in nonexperimental studies. *Aggressive Behavior, 36*(1), 14-20. doi:10.1002/ab.20328

Hare, K. A., Gahagan, J., Jackson, L., & Steenbeek, A. (2015). Revisualising 'porn': how young adults' consumption of sexually explicit Internet movies can inform approaches to Canadian sexual health promotion. *Culture, Health & Sexuality, 17*(3), 269-283. doi:10.1080/13691058.2014.919409

Harkness, E. L., Mullan, B., & Blaszczynski, A. (2015). Association between pornography use and sexual risk behaviors in adult consumers: a systematic review. *Cyberpsychology, Behavior And Social Networking, 18*(2), 59-71. doi:10.1089/cyber.2014.0343

Harper. (2016). Examining correlates of problematic Internet pornography use among university students. *Journal of behavioral addictions., 5*(2), 179.

Hayes, A. F. (2014). *Introduction to Mediation, Moderation, and Conditional Process Analysis : A Regression-Based Approach*. New York: New York: Guilford Publications.

Herrman, M. S., & Bordner, D. C. (1983). Attitudes Toward Pornography in a Southern Community. *Criminology, 21*(3), 349-374. doi:10.1111/j.1745-9125.1983.tb00266.x

Hogben, M., & Byrne, D. (1998). Using social learning theory to explain individual differences in human sexuality. *Journal of Sex Research, 35*(1), 58-71. doi:10.1080/00224499809551917

Horvath, M., Alys, L., Massey, K., Pina, A., Scally, M., & Adler, J. R. (2013). "Basically...porn is everywhere". A Rapid Evidence Assessment on the Effects that Access and Exposure to Pornography has on Children and Young People: Office of the Children's Commissioner.

Huesmann, L. R. (1986). Psychological processes promoting the relation between exposure to media violence and aggressive behavior by the viewer. . *Journal of Social Issues,, 42*, 125-139.

Huesmann, L. R. (1988). An information processing model for the development of aggression. *Aggressive Behavior, 14*(1), 13-24. doi:10.1002/1098-2337(1988)14:1<13::AID-AB2480140104>3.0.CO;2-J

Jager, C. (2017, Jan 9, 2017). The Biggest (And Weirdest) Online Porn Trends Of 2016. *Lifehacker AU*. Retrieved from https://www.lifehacker.com.au/2017/01/the-hottest-and-weirdest-online-porn-trends-of-2016-nsfw/

Janghorbani, M., & Lam, T. H. (2003). The Youth Sexuality Study Task Force. Sexual media use by young adults in Hong Kong: Prevalence and associated factors. . *Archives of Sexual Behavior, 32*, 545–553. doi:DOI: 10.1023/A:1026089511526

Janssen, E. (2002). Why People use Porn. *American Porn*. Retrieved from www.pbs.org website: http://www.pbs.org/wgbh/pages/frontline/shows/porn/special/why.html

Kinsey, I. (2002). *Do you use Porn?* Retrieved from Indiana: http://www.pbs.org/wgbh/pages/frontline/shows/porn/etc/surveyres.html

Lauricella, A. R., Cingel, D. P., Blackwell, C., Wartella, E., & Conway, A. (2014). The Mobile Generation: Youth and Adolescent Ownership and Use of New Media. *Communication Research Reports, 31*(4), 357-364. doi:10.1080/08824096.2014.963221

Layden, M. A. (2010). Pornography and Violence: A New Look at the Research. In J. R. S. J. a. D. M. Hughes (Ed.), *The Social Costs of Pornography* (pp. 57–68.). New Jersey: Witherspoon Institute.

Leavitt, F. (1999). Dissociative Experiences Scale Taxon and Measurement of Dissociative Pathology: Does the Taxon Add to an Understanding of Dissociation and Its

Associated Pathologies? *Journal of Clinical Psychology in Medical Settings, 6*(4), 427-440. doi:10.1023/A:1026275916184

Lenhart, A., Ling, R., Campbell, S., & Purcell, K. (2010). *Teens and cell phones*. Retrieved from http://pewinternet.org/Reports/2010/Teens

Levesque, D. A., Johnson, J. L., Welch, C. A., Prochaska, J. M., & Paiva, A. L. (2016). Teen Dating Violence Prevention: Cluster-Randomized Trial of Teen Choices , an Online, Stage-Based Program for Healthy, Nonviolent Relationships. *Psychology of Violence*. doi:10.1037/vio0000049

Ley, D. J. (2014). Common Sense about the Effects of Pornography: Are concerns about pornography based in fact or fear? *Psychology Today*. Retrieved from Psychology Today website: https://www.psychologytoday.com/blog/women-who-stray/201402/common-sense-about-the-effects-pornography

Lim, M. S. C., Agius, P. A., Carrotte, E. R., Vella, A. M., & Hellard, M. E. (2017). Young Australians' use of pornography and associations with sexual risk behaviours. *Australian and New Zealand Journal of Public Health, 41*(4), 438-443. doi:10.1111/1753-6405.12678

Lim, M. S. C., Carrotte, E. R., & Hellard, M. E. (2016). The impact of pornography on gender-based violence, sexual health and well-being: what do we know? *Journal of Epidemiology and Community Health, 70*(1), 3. doi:10.1136/jech-2015-205453

Lo, V.-H., & Wei, R. (2005). Exposure to Internet Pornography and Taiwanese Adolescents' Sexual Attitudes and Behavior. *Journal of Broadcasting & Electronic Media, 49*(2), 221-237. doi:10.1207/s15506878jobem4902_5

Löfgren-Mårtenson, L., & Månsson, S.-A. (2010). Lust, Love, and Life: A Qualitative Study of Swedish Adolescents' Perceptions and Experiences with Pornography. *Journal of Sex Research, 47*(6), 568-579. doi:10.1080/00224490903151374

Lottes, I., Weinberg, M., & Weller, I. (1993). Reactions to pornography on a college campus: For or against? *A Journal of Research, 29*(1), 69-89. doi:10.1007/BF00289997

Lottes, I. L., & Weinberg, M. S. (2011). Attitudes Toward Erotica Questionnaire. In T. Fisher, C. M. Davis, W. L. Yarber, & S. L. Davis (Eds.), *Handbook of Sexuality-Related Measures* (Third ed.). New York: Routledge.

Makin, D. A., & Morczek, A. L. (2016). X Views and Counting: Interest in Rape-Oriented Pornography as Gendered Microaggression. *J Interpers Violence, 31*(12), 2131-2155. doi:10.1177/0886260515573572

Malamuth, N. M., Addison, T., & Koss, M. P. (2000). Pornography and sexual aggression: are there reliable effects and can we understand them? *Annual Review of Sex Research, 11*, 26.

Marshall, W. L. (2000). Revisiting the use of pornography by sexual offenders: Implications for theory and practice. *The Journal of Sexual Aggression, 6*, 67-77. doi:DOI: 10.1080/13552600008413310

Martellozzo, E., Monaghan, A., Adler, J. R., Davidson, J., Leyva, R., & Horvath, M. A. H. (2016). *"I wasn't sure it was normal to watch it…"A quantitative and qualitative examination of the impact of online pornography on the values, attitudes, beliefs and behaviours of children and young people.* . Retrieved from London: https://www.nspcc.org.uk/globalassets/documents/research-reports/mdx-nspcc-occ-pornography-report.pdf

McDougall, B. (2016, December 3, 2016). Teachers get porn alerts as school students' phones are programmed to block pornography. Retrieved from http://www.ntnews.com.au/news/national/teachers-get-porn-alerts-as-school-students-phones-are-programmed-to-block-pornography/news-story/8050fd400943e7d52d939b1c7e50e2f4

Mitchell, K. J., Finkelhor, D., & Wolak, J. (2003). The Exposure Of Youth To Unwanted Sexual Material On The Internet (Vol. 34, pp. 330-358).

Morris, C. (2015). Things Are Looking Up in America's Porn Industry. Retrieved from NBC News website: http://www.nbcnews.com/business/business-news/things-are-looking-americas-porn-industry-n289431

Mullin, C. R., & Linz, D. (1995). Desensitization and Resensitization to Violence Against Women: Effects of Exposure to Sexually Violent Films on Judgments of Domestic Violence Victims. *Journal of Personality and Social Psychology, 69*(3), 449-459. doi:10.1037/0022-3514.69.3.449

Mustanski, B. S. (2001). Getting wired: Exploiting the internet for the collection of valid sexuality data. *Journal of Sex Research, 38*(4), 292-301. doi:10.1080/00224490109552100

Owens, E. W., Behun, R. J., Manning, J. C., & Reid, R. C. (2012). The Impact of Internet Pornography on Adolescents: A Review of the Research. *Sexual addiction & compulsivity, 19*(1-2), 99-122. doi:10.1080/10720162.2012.660431

Papadopoulos, L. (2010). *Sexualisation of Young People Review*. Retrieved from UK: http://webarchive.nationalarchives.gov.uk/20100408125926/http://www.homeoffice.gov.uk/documents/Sexualisation-of-young-people.html

Paul, P. (2010). From Pornography to Porno to Porn: How Porn Became the Norm. In J. R. S. J. A. D. M. Hughes (Ed.), *The Social Costs of Pornography*. New Jersey, Witherspoon Institute.

Peter, J., & Valkenburg, P. M. (2006a). Adolescents' Exposure to Sexually Explicit Material on the Internet. *Communication Research, 33*(2), 178-204. doi:10.1177/0093650205285369

Peter, J., & Valkenburg, P. M. (2006b). Adolescents' Exposure to Sexually Explicit Online Material and Recreational Attitudes Toward Sex. *Journal of Communication, 56*(4), 639-660. doi:10.1111/j.1460-2466.2006.00313.x

Peter, J., & Valkenburg, P. M. (2008). Adolescents' exposure to sexually explicit internet material, sexual uncertainty, and attitudes toward uncommitted sexual exploration: is there a link? *Communication Research, 35*(5), 579-601. doi: 10.1177/0093650208321754

Peter, J., & Valkenburg, P. M. (2009). Adolescents' Exposure to Sexually Explicit Internet Material and Notions of Women as Sex Objects: Assessing Causality and Underlying Processes. *Journal of Communication, 59*(3), 407-433. doi:10.1111/j.1460-2466.2009.01422.x

Peter, J., & Valkenburg, P. M. (2010). Processes underlying the effects of adolescents' use of sexually explicit Internet material: the role of perceived realism. *Communication Research, 37*(3), 375-399. doi:10.1177/0093650210362464

Peter, J., & Valkenburg, P. M. (2011). The Influence of Sexually Explicit Internet Material on Sexual Risk Behavior: A Comparison of Adolescents and Adults. *Journal of Health Communication, 16*(7), 750-765. doi:10.1080/10810730.2011.551996

Peter, J., & Valkenburg, P. M. (2016). Adolescents and Pornography: A Review of 20 Years of Research. *J Sex Res, 53*(4-5), 509-531. doi:10.1080/00224499.2016.1143441

Pratt, R., & Fernandes, C. (2015). How Pornography May Distort Risk Assessment of Children and Adolescents Who Sexually Harm. *Children Australia, 40*(03), 232-241. doi:10.1017/cha.2015.28

Price, J., Patterson, R., Regnerus, M., & Walley, J. (2015). How Much More XXX is Generation X Consuming? Evidence of Changing Attitudes and Behaviors Related to

Pornography Since 1973. *The Journal of Sex Research*, 1-9. doi:10.1080/00224499.2014.1003773

Rideout, V., Roberts, D. F., & Foehr, U. G. (2005). *Generation M: Media in the lives of 8-18 year olds. x*. Retrieved from Menlo Park, CA:

Rissel, C., Richters, J., de Visser, R. O., McKee, A., Yeung, A., & Caruana, T. (2017). A Profile of Pornography Users in Australia: Findings From the Second Australian Study of Health and Relationships. *The Journal of Sex Research, 54*(2), 227-240. doi:10.1080/00224499.2016.1191597

Rogala, C., & Tydén, T. (2003). Does pornography influence young women's sexual behavior? *Women's Health Issues, 13*(1), 39-43. doi:http://dx.doi.org/10.1016/S1049-3867(02)00174-3

Sabina, C., Wolak, J., & Finkelhor, D. (2008). The Nature and Dynamics of Internet Pornography Exposure for Youth. *CyberPsychology & Behavior, 11*(6), 691-693. doi:10.1089/cpb.2007.0179

Schneider, J. P. (1994). Sex addiction: Controversy within Mainstream Addiction Medicine, Diagnosis Based on the DSM-III-R, and Physician Case Histories. *Sexual addiction & compulsivity, 1*(1), 19-44. doi:10.1080/10720169408400025

Schneider, J. P. (2000). A Qualitative Study of Cybersex Participants: Gender Differences, Recovery Issues, and Implications for Therapists. *Sexual addiction & compulsivity, 7*(4), 249-278. doi:10.1080/10720160008403700

Schwartz, M. F., & Southern, S. (2000). Compulsive Cybersex: The New Tea Room. *Sexual addiction & compulsivity, 7*(1/2), 127-144.

Seigfried-Spellar, K. C., & Rogers, M. K. (2013). Does deviant pornography use follow a Guttman-like progression? *Computers in Human Behavior, 29*(5), 1997-2003. doi:10.1016/j.chb.2013.04.018

Senn, C. Y. (1993). Women's Multiple Perspectives and Experiences with Pornography. *Psychology of Women Quarterly, 17*(3), 319-341. doi:10.1111/j.1471-6402.1993.tb00490.x

Seto, M. C., Maric, A., & Barbaree, H. E. (2001). The role of pornography in the etiology of sexual aggression. *Aggression and Violent Behavior, 6*(1), 35-53. doi:10.1016/S1359-1789(99)00007-5

Sheffield, C. J. (1987). Sexual terrorism: The social control of women. In B. B. Hess & M. M. Ferree (Eds.), *Analyzing gender : a handbook of social science research / editors, Beth B. Hess and Myra Marx Ferree*. Newbury Park, Calif: Newbury Park, Calif : Sage Publications.

Stanley, N., Barter, C., Wood, M., Aghtaie, N., Larkins, C., Lanau, A., & Överlien, C. (2016). Pornography, Sexual Coercion and Abuse and Sexting in Young People's Intimate Relationships: A European Study. *Journal of Interpersonal Violence*, 0886260516633204. doi:10.1177/0886260516633204

Stewart, D., & Szymanski, D. (2012). Young Adult Women's Reports of Their Male Romantic Partner's Pornography Use as a Correlate of Their Self-Esteem, Relationship Quality, and Sexual Satisfaction. *A Journal of Research, 67*(5), 257-271. doi:10.1007/s11199-012-0164-0

Strasburger, V. C., Jordan, A. B., & Donnerstein, E. (2010). Health effects of media on children and adolescents. *Pediatrics, 125*(4), 756. doi:10.1542/peds.2009-2563

Štulhofer, A., Buško, V., & Landripet, I. (2010). Pornography, Sexual Socialization, and Satisfaction Among Young Men. *The Official Publication of the International Academy of Sex Research, 39*(1), 168-178. doi:10.1007/s10508-008-9387-0

Sun, C., Bridges, A., Johnson, J., & Ezzell, M. (2016). Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations. *The Official Publication of*

the International Academy of Sex Research, 45(4), 983-994. doi:10.1007/s10508-014-0391-2

Sussman, S., & Arnett, J. J. (2014). Emerging Adulthood. *Evaluation & the Health Professions, 37*(2), 147-155. doi:10.1177/0163278714521812

Thornburgh, D., & Lin, H. (2004). Youth, Pornography, and the Internet. *Issues in Science and Technology, 20*(2), 43-48.

Tiggemann, M., & Hodgson, S. (2008). The Hairlessness Norm Extended: Reasons for and Predictors of Women's Body Hair Removal at Different Body Sites. *A Journal of Research, 59*(11), 889-897. doi:10.1007/s11199-008-9494-3

Tourangeau, R., & Smith, T. W. (1996). Asking Sensitive Questions: The Impact of Data Collection Mode, Question Format, and Question Context. *The Public Opinion Quarterly, 60*(2), 275-304.

Traeen, B., & Daneback, K. (2013). The use of pornography and sexual behaviour among Norwegian men and women of differing sexual orientation.(Report). *Sexologies, 22*(2), e41-e48. doi:10.1016/j.sexol.2012.03.001

Træen, B., Nilsen, T. S., & Stigum, H. (2006). Use of pornography in traditional media and on the internet in Norway. *Journal of Sex Research, 43*(3), 245-254. doi:10.1080/00224490609552323

Træen, B., Spitznogle, K., & Beverfjord, A. (2004). Attitudes and Use of Pornography in the Norwegian Population 2002. *The Journal of Sex Research, 41*(2), 193-200.

Trochim, W. M., & Donnelly, J. P. (2006). *The Research Methods Knowledge base* (Third ed.). Cincinnati: Atomic Dog.

Twohig, M. P., Crosby, J. M., & Cox, J. M. (2009). Viewing Internet pornography: for whom is it problematic, how, and why? *Sexual addiction & compulsivity, 16*(4), 253-266. doi:10.1080/10720160903300788

Tydén, T., & Rogala, C. (2004). Sexual behaviour among young men in Sweden and the impact of pornography. *International Journal of STD & AIDS, 15*(9), 590-593. doi:10.1258/0956462041724299

Tylka, T. L. (2015). No Harm in Looking, Right? Men's Pornography Consumption, Body Image, and Well-Being. *Psychology of Men & Masculinity, 16*(1), 97-107. doi:10.1037/a0035774

Van Oosten, J. M. F., Peter, J., & Vandenbosch, L. (2017). Adolescents' Sexual Media Use and Willingness to Engage in Casual Sex: Differential Relations and Underlying Processes. *Human Communication Research, 43*(1), 127-147. doi:10.1111/hcre.12098

Waller, G. (2000). Rebuilding Shattered Lives: The Responsible Treatment of Complex Post-Traumatic and Dissociative Disorders. James A. Chu. Wiley (1998) £29.50. pp. 271 ISBN 0-471-24732-4 (Vol. 8, pp. 330-331). Chichester, UK.

Waller, N. G., Putnam, F. W., & Carlson, E. B. (1996). Types of Dissociation and Dissociative Types: A Taxometric Analysis of Dissociative Experiences. *Psychological Methods, 1*(3), 300-321. doi:10.1037/1082-989X.1.3.300

Waller, N. G., & Ross, C. A. (1997). The Prevalence and Biometric Structure of Pathological Dissociation in the General Population: Taxometric and Behavior Genetic Findings. *Journal of Abnormal Psychology, 106*(4), 499-510. doi:10.1037/0021-843X.106.4.499

Wallmyr, G., & Welin, C. (2006). Young People, Pornography, And Sexuality: Sources And Attitudes. *The Journal of School Nursing, 22*(5), 290-295. doi:10.1177/10598405060220050801

Weinberg, M., Williams, C., Kleiner, S., & Irizarry, Y. (2010). Pornography, Normalization, and Empowerment. *Archives of Sexual Behavior, 39*(6), 1389-1401. doi:10.1007/s10508-009-9592-5

Weisz, M. G., & Earls, C. M. (1995). The Effects of Exposure to Filmed Sexual Violence on Attitudes Toward Rape. *Journal of Interpersonal Violence, 10*(1), 71-84. doi:10.1177/088626095010001005

Wolak, J., Mitchell, K., & Finkelhor, D. (2007). Unwanted and Wanted Exposure to Online Pornography in a National Sample of Youth Internet Users. *Pediatrics, 119*, 247-257.

Wright, P. J. (2011a). Mass Media Effects on Youth Sexual Behavior Assessing the Claim for Causality. *Annals of the International Communication Association, 35*(1), 343-385. doi:10.1080/23808985.2011.11679121

Wright, P. J. (2011b). U.S. Males and Pornography, 1973–2010: Consumption, Predictors, Correlates. *Journal of Sex Research, 50*(1), 1-12. doi:10.1080/00224499.2011.628132

Wright, P. J. (2013). A Three-Wave Longitudinal Analysis of Preexisting Beliefs, Exposure to Pornography, and Attitude Change. *Communication Reports, 26*(1), 13-25. doi:10.1080/08934215.2013.773053

Wright, P. J., Bae, S., & Funk, M. (2013). United States Women and Pornography Through Four Decades: Exposure, Attitudes, Behaviors, Individual Differences. *The Official Publication of the International Academy of Sex Research, 42*(7), 1131-1144. doi:10.1007/s10508-013-0116-y

Wright, P. J., & Tokunaga, R. (2016). Men's Objectifying Media Consumption, Objectification of Women, and Attitudes Supportive of Violence Against Women. *The Official Publication of the International Academy of Sex Research, 45*(4), 955-964. doi:10.1007/s10508-015-0644-8

Ybarra, M. L., & Mitchell, K. J. (2005). Exposure to Internet Pornography among Children and Adolescents: A National Survey. *CyberPsychology & Behavior, 8*(5), 473-486. doi:10.1089/cpb.2005.8.473

Zillmann, D. (2000). Influence of unrestrained access to erotica on adolescents' and young adults' dispositions toward sexuality. *Journal of Adolescent Health, 27*(2), 41-44. doi:10.1016/S1054-139X(00)00137-3

Appendix 1

Item Analysis of Attitudes to IP: Levels of Agreement and Disagreement by Gender

Table 1. Total Agreement and Disagreement by gender on statements from Harm, Restrict and Positive Attitudes to IP scales

	Total Agreement Males	Total Agreement *Females*	Total Disagreement Males	Total Disagreement *Females*
IP exploits women (Harm)	53.2%	73.7%	34%	15.2%
IP exploits men (Harm)	30.5%	36.2%	51.6%	46.7%
IP may provide an outlet for bottled up sexual pressures (Positive)	80%	68.9%	6.3%	9.9%
IP may teach people sexual techniques (Positive)	91.6%	82.7%	0%	7.3%
IP should be made illegal (Restrict)	5.3%	8.6%	89.4%	66.5%
IP should be protected under Commonwealth legislation...(Restrict Rev)	51.5%	35.8%	6.3%	17.2%

Appendix 2

Participant Information and Consent Form

Q1) Name of Project: Internet Pornography & Gender Attitudes study

You are invited to participate in an **anonymous** study of Internet pornography (IP) use, attitudes and behaviour. The purpose of this research is to look at relationships between IP use, and attitudes toward sexual relationships, gender and the way individuals feel about themselves.

This study is being conducted by Dr. Wayne Warburton, Senior Lecturer in developmental psychology at Macquarie University (9850 8643; wayne.warburton@mq.edu.au) and Shireen Bernstein (0410 797220; shireen.bernstein@students.mq.edu.au), Masters of Research/PhD candidate at Macquarie University. This study is being conducted to meet the requirements of a Masters of Research under the supervision of Dr. Wayne Warburton of the Department of Psychology.

This is an online study. You are under no obligation to participate and will not be given the study URL until you have signed up for the study. In order to sign up for the study, you must agree to the terms of participation noted in the information and consent form. This includes not receiving credit for participation until the end of the survey.

You are free to stop the survey at any stage; and at various points throughout the survey, you will be given the opportunity to select a "I do not wish to answer this question" if you are uncomfortable answering. Please note however that you will not receive credit for participating unless you complete the entire survey.

As a participant, you are obligated to answer all questions accurately and honestly. Answering fictitiously or haphazardly jeopardises the quality of the research. If you terminate your research participation due to adverse circumstances, please contact the researcher.

If you terminate your research participation due to adverse circumstances, please contact the researcher.

As a research participant you are responsible for:

- Completely reading information and consent forms
- Carefully weighing the risks and benefits of participation
- Knowing when, where, and for how long participation is required
- Talking to the researcher when concerns arise
- Fulfilling the responsibilities as described in the information and consent forms"

If you choose to participate, you will be required to click on the link below that will take you to the online survey. This survey should take approximately 25 minutes to complete.

This survey, completed anonymously, includes questions of a sensitive nature related to your personal use of Internet pornography and attitudes and behaviours linked to that use. If you feel you would be uncomfortable answering these sort of questions, please click "No" below and select an alternative study in which to participate.

Due to the personal nature of these questions, this online survey should be completed in private (not at a public terminal).

The Internet Pornography and Gender Attitudes survey is **completed anonymously**. Please note that although you will be taken to a separate survey at the completion of your survey so that your research participation can be credited, your data from the anonymous survey will be cached separately and cannot be linked to the details entered at the course credit section. You will receive a credit of 30 minutes (1 credit) of research participation on completion of this survey.

It is possible that completing this questionnaire might trigger some distress for you. If you experience any distress, a list of possible help sources are listed at the end of the survey. Sources of support include **Campus Wellbeing** services (9850 7497, campuswellbeing@mq.edu.au), **Lifeline** (13 11 14) and **Beyondblue** (1300 22 46 36).

You are free to withdraw from participation in the research at any time without having to give a reason and without consequence or penalty. If you do decide to withdraw you will not be required to forfeit your course credit.

Any information or personal details gathered in the course of the study are confidential, except as required by law. No individual will be identified in any publication of the results. Both Ms Shireen Bernstein and Dr. Wayne Warburton will have access to this data. A summary of the results of the data can be made available to you on request – just email Shireen Bernstein at shireen.bernstein@students.mq.edu.au.

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics & Integrity (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

At the completion of this survey, you will be taken to a separate survey, not linked to your anonymous survey data, that will allow you to enter your details in order to be credited for your research participation.

I understand that this survey is anonymous and therefore completing the questionnaire implies my consent for the researchers to use my data.

"Do you want to participate in this study in order to receive credit towards PSYC104/105?"

Appendix 3

Online Survey Instrument

Q2 Please indicate your age:

- ○ 17-19 years
- ○ 20-22 years
- ○ 23-25 years

Q3 Please indicate your gender:

- ○ Male
- ○ Female

Q4 Do you have access to the Internet at home?

- ○ Yes
- ○ No

Q5 Do you have access to the Internet on a mobile device (mobile phone, lap top, Ipad or tablet)

- ○ Yes
- ○ No

Q6 How often do you access the Internet?

- ○ Every day
- ○ Several times a week
- ○ At least once a week
- ○ A few times a month

Q7 Have you ever seen what would be described as pornographic material online? By pornographic material we mean images and films of people having sex or behaving sexually online. This includes naked and semi-naked images and films of people that you may have viewed or downloaded from the Internet or that someone else shared with you directly, or showed you on their phone or computer.

- ○ Yes
- ○ No

Q8 Please remember that your responses to these questions are anonymous, there is no way to link your identity with your responses so please try to be as honest as you can based on your best recollection. Please click on the response that is the best description of the circumstances in which you were FIRST exposed to Internet Pornography.

Q9 To your best recollection, at what age did you FIRST see pornographic material online. Please select the age group that represents how old you were at first exposure:

- ○ under 6 years
- ○ 6-8 years
- ○ 9-11 years
- ○ 12-14 years
- ○ 15-17 years
- ○ 17+ years

Q10 To your best recollection, which of these best describes WHO YOU WERE WITH when you FIRST saw pornography online:

- ○ I was alone
- ○ I was with a friend/group of friends
- ○ I was with a girlfriend/boyfriend
- ○ I was with a sibling/family member

Q11 To your best recollection, which of these best describes the CIRCUMSTANCES in which you FIRST saw pornography online? Please click on the response that fits best:

- ○ I was on my own and it just popped up on the screen
- ○ I was on my own and I looked it up
- ○ I was with someone else and it just popped up on the screen
- ○ I was with someone else and they looked it up
- ○ I was shown it by someone else and I WAS NOT expecting to see it
- ○ I was shown it by someone else and I WAS expecting to see it

Q12 To your best recollection, on what type of device did you FIRST see pornography online?

- ○ A desktop computer (MAC, PC)
- ○ A portable computer (laptop, Ipad, tablet)
- ○ A handheld device (Iphone, Smart phone, Blackberry)
- ○ A gaming device (X-box, Playstation)

Q13 To your best recollection, where were you when you FIRST saw pornography online?

- ○ At home
- ○ At a friend's house
- ○ At a relative's house
- ○ At school
- ○ At another location

Q14 To your best recollection, which of these best describes HOW you were first exposed to online pornography. Please remember to be as honest as possible as your responses are anonymous:

- ○ It was an accident - I/ the person/s I was with received an unwanted email
- ○ It was an accident - I/ the person/s I was with clicked on a link and an image/video opened unexpectedly
- ○ It was an accident - I / the person/s I was with was utilising file sharing software and it was unexpectedly downloaded
- ○ It was intentional - I / the person/s I was with searched for it on a search engine
- ○ It was intentional - I / the person/s I was with searched for it on YouTube or another video streaming site
- ○ It was intentional - I/ the person/s I was with entered a known site address
- ○ It was intentional - I/the person/s I was with received a requested email

Ineligible to participate/receive course credit message

Unfortunately you are unable to complete this survey as you do not meet the stated requirements for participation or you have not fully completed the survey. As advised in the Information and Consent form, you are unable to gain course credit for this study unless you complete the entire survey.

- ○ Please click here to end the survey

Q15 Thinking about when you saw online pornography for the FIRST time, click on AS MANY responses that you think applied to how you felt AT THAT TIME:

- [ ] Curious
- [ ] Shocked
- [ ] Confused
- [ ] Disgusted
- [ ] Nervous
- [ ] Turned on
- [ ] Ashamed
- [ ] Excited
- [ ] Sick
- [ ] Scared
- [ ] Upset
- [ ] Happy
- [ ] Sexy
- [ ] Unhappy
- [ ] I prefer not to answer this question

Q16 Have you ever actively searched for pornography online after seeing it for the first time?

- ○ Yes
- ○ No

Q17 How often do you currently view pornography online? Please click on the response that best describes the frequency. Please remember that your answers are anonymous:

- ○ Every day
- ○ Several times a week
- ○ At least once a week
- ○ A few times a month
- ○ Every few months
- ○ A few times a year
- ○ Never
- ○ I prefer not to answer

Q18 Thinking about when you look at online pornography NOW, click on AS MANY responses that you think apply to how you feel NOW:

- [ ] Curious
- [ ] Shocked
- [ ] Confused
- [ ] Disgusted
- [ ] Nervous
- [ ] Turned on
- [ ] Ashamed
- [ ] Excited
- [ ] Sick
- [ ] Scared
- [ ] Upset
- [ ] Happy
- [ ] Sexy
- [ ] Unhappy
- [ ] I prefer not to answer this question

Q19 Thinking about the Internet pornography you have seen, please indicate how much you agree with each of the following statements.

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
...arousing	○	○	○	○	○
...shocking	○	○	○	○	○
...exciting	○	○	○	○	○
...exploitative	○	○	○	○	○
...silly	○	○	○	○	○
...amusing	○	○	○	○	○
...degrading/humiliating	○	○	○	○	○
...repulsive/revolting	○	○	○	○	○
...fun	○	○	○	○	○
...scary	○	○	○	○	○
...upsetting	○	○	○	○	○
...boring	○	○	○	○	○
...informative/educational	○	○	○	○	○

Q20 We will now be asking you some questions about your personal attitudes to online pornography. Please indicate how strongly you agree or disagree with each of the following statements about yourself in relation to online pornography.

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree	I prefer not to answer this question
Seeing online pornography has led me to believe that WOMEN should act in certain ways during sex.	○	○	○	○	○	○
Seeing online pornography has led me to believe than MEN should act in certain ways during sex	○	○	○	○	○	○
Seeing online pornography has led me to believe that MEN should sometimes be pressured into having sex in certain ways.	○	○	○	○	○	○
Seeing online pornography has led me to believe that WOMEN should sometimes be pressured into having sex in certain ways.	○	○	○	○	○	○

Q21 Please indicate how strongly you agree or disagree with each of the following statements about yourself in relation to online pornography.	Strongly disagree	Disagree	No opinion	Agree	Strongly agree	I prefer not to answer this question
Seeing online pornography has led me to enact (carry out) some of what I have seen online in my own sexual relationships	○	○	○	○	○	○
Seeing online pornography has led me to be more sexually aggressive in my own intimate relationships (e.g. demanding your partner perform certain sexual acts they are uncomfortable with performing)	○	○	○	○	○	○
Seeing online pornography has led me to try more risky sexual activities in my own intimate relationships (e.g. multiple partners, engaging in unprotected sex)	○	○	○	○	○	○
Seeing online pornography has led me to be more physically aggressive in my own intimate relationships (e.g. engaging in slapping or hitting during sex)	○	○	○	○	○	○

Seeing online pornography has led me to be less interested in activities like kissing and caressing my partner in preference of more overt sexual activities (e.g. penetration)	○	○	○	○	○	○
Seeing online pornography has led me to prefer my sexual partners are more physically similar to the actors/actresses involved in online pornography (e.g. large breasts/genitalia, an absence of pubic hair).	○	○	○	○	○	○
Seeing online pornography has led me to feel less attracted/desiring of my current partner/s.	○	○	○	○	○	○
Seeing online pornography has led me to feel less attractive/desirable to my current sexual partner/s.	○	○	○	○	○	○
Seeing online pornography has led me to prefer masturbation to this imagery over sexual contact with a partner.	○	○	○	○	○	○

Q22 We will now be asking you some questions about your general attitudes to online pornography. There is no right or wrong answer, please answer as honestly as possible and remember your responses to these questions are anonymous. Please indicate how strongly you agree or disagree with the following statements	Strongly disagree	Disagree	No opinion	Agree	Strongly agree	I prefer not to answer this question
Internet pornography exploits WOMEN.	○	○	○	○	○	○
Internet pornography should be available to adults.	○	○	○	○	○	○
The availability of Internet pornography leads to a breakdown in community morals.	○	○	○	○	○	○
Internet pornography can improve sexual relationships.	○	○	○	○	○	○
I feel Internet pornography is offensive.	○	○	○	○	○	○
Internet pornography exploits MEN.	○	○	○	○	○	○

Internet pornography should be available to minors (under 18 years).	○	○	○	○	○	○
Internet pornography increases the probability of sexual violence.	○	○	○	○	○	○
In Internet pornography, the positioning and treatment of MEN is degrading to MEN.	○	○	○	○	○	○
Internet pornography may provide an outlet for bottled-up sexual pressures.	○	○	○	○	○	○
In Internet pornography, sex and violence are often shown together.	○	○	○	○	○	○
Internet pornography can enhance the pleasure of masturbation for WOMEN.	○	○	○	○	○	○
Internet pornography should be made illegal.	○	○	○	○	○	○
In Internet pornography, the positioning and treatment of WOMEN is degrading to WOMEN.	○	○	○	○	○	○

Internet pornography can enhance the pleasure of masturbation for MEN.	○	○	○	○	○	○
Internet pornography may teach people sexual techniques.	○	○	○	○	○	○
Internet pornography should be protected under Commonwealth legislation for Freedom of Expression.	○	○	○	○	○	○
Internet pornography serves a more positive than negative function in society.	○	○	○	○	○	○

Q23 We will now be asking you some questions about how watching online pornography makes you feel. Please indicate how often the following statements apply to you. Please remember your responses are anonymous.

	Never	Rarely	Sometimes	Frequently	Always	I prefer not to answer this question
I search for pornography through an Internet search tool.	○	○	○	○	○	○
I try to hide what is on my computer or monitor so that others cannot see it.	○	○	○	○	○	○
I have stayed up after midnight to access pornography online.	○	○	○	○	○	○
I masturbate while looking at pornography on the Internet.	○	○	○	○	○	○

Q24 Please indicate how strongly you agree or disagree with each of the following statements about yourself in relation to online pornography.	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	I prefer not to answer this question
Online pornography has sometimes interfered with certain aspects of my life.	○	○	○	○	○	○
I sometimes use online pornography as a reward for accomplishing something (e.g. finishing an assignment, a stressful day etc.).	○	○	○	○	○	○
I see no purpose in viewing online pornography.	○	○	○	○	○	○
I have made promises to myself to stop using the Internet for pornography.	○	○	○	○	○	○
When I am unable to access pornography online, I feel anxious, angry or disappointed.	○	○	○	○	○	○

It is easy for me to turn down the chance to view online pornography.	○	○	○	○	○	○
I have punished myself when I use the Internet for pornography (e.g. time out from the computer, turned off my WIFI etc.)	○	○	○	○	○	○
Even when I do not want to view pornography online, I find myself drawn to it.	○	○	○	○	○	○
I feel unable to stop my use of online pornography.	○	○	○	○	○	○
I have no problem controlling my use of online pornography.	○	○	○	○	○	○
I believe I am addicted to Internet pornography.	○	○	○	○	○	○

Q25 Please indicate if the following statements are true or false in relation to online pornography and yourself.

	True	False	I prefer not to answer this question
I have some pornographic sites bookmarked.	○	○	○
I spend more than 5 hours per week using my computer/tablet/smartphone for pornography.	○	○	○
I have put off studying or other important priorities to view pornography online.	○	○	○
I have refused to go out with friends or attend certain social functions to have the opportunity to view pornography online.	○	○	○
I have rearranged my schedule so that I would be able to view pornography online without being disturbed.	○	○	○

Q26 Please indicate how frequently the following statements apply to you (or how you feel most of the time) by clicking on the appropriate response for each of the statements.	Rarely	Sometimes	Frequently	Always	I prefer not to answer this question
I am very uncomfortable when the subject of Internet pornography comes up.	○	○	○	○	○
After viewing pornography online, I clear my browser's history.	○	○	○	○	○
I avoid situations in which my pornography usage could be exposed or confronted.	○	○	○	○	○
I fear that someone might someday discover my secret of viewing online pornography.	○	○	○	○	○
The subject of Internet pornography does not make me uncomfortable.	○	○	○	○	○
Viewing pornography online does not bother me.	○	○	○	○	○

I feel depressed after viewing pornography online.	○	○	○	○	○
I feel sick after viewing pornography online.	○	○	○	○	○
I feel no negative emotions after viewing pornography online.	○	○	○	○	○
I feel ashamed after viewing pornography online.	○	○	○	○	○
I feel good after viewing pornography online.	○	○	○	○	○

Q27 Please indicate how strongly you agree or disagree with each of the following statements.	Strongly disagree	Disagree	Agree	Strongly agree	I prefer not to answer this question
A man angry enough to hit his girlfriend must love her very much.	○	○	○	○	○
Violence between dating partners can improve the relationship.	○	○	○	○	○
Women sometimes deserve to be hit by the men they date.	○	○	○	○	○
A woman who makes her boyfriend jealous on purpose deserves to be hit.	○	○	○	○	○
Men sometimes deserve to be hit by the women they date.	○	○	○	○	○
A woman angry enough to hit her boyfriend must love him very much.	○	○	○	○	○
There are times when violence between dating partners is OK.	○	○	○	○	○

A man who makes his girlfriend jealous on purpose deserves to be hit.	○	○	○	○	○
Sometimes violence is the only way to express your feelings.	○	○	○	○	○
Some couples must use violence to solve their problems.	○	○	○	○	○
Violence between dating partners is a personal matter and people should not interfere.	○	○	○	○	○

Q28 Please indicate how strongly you agree or disagree with each of the following statements.	Strongly Agree	Somewhat Agree	Agree	Undecided	Disagree	Somewhat Disagree	Strongly Disagree	I prefer not to answer this question
It is disrespectful to swear in the presence of a lady	○	○	○	○	○	○	○	○
The initiative in courtship should usually come from the man.	○	○	○	○	○	○	○	○
Women should have as much sexual freedom as men.	○	○	○	○	○	○	○	○
Women with children should not work outside the home if they don't have to financially.	○	○	○	○	○	○	○	○
The husband should be regarded as the legal representative of the family group in all matters of law.	○	○	○	○	○	○	○	○
Except in very special circumstances a man should never allow a woman to pay the taxi, buy the tickets, or pay the bill.	○	○	○	○	○	○	○	○

Men should continue to show courtesies to women such as holding open the door or helping them on with their coats.	○	○	○	○	○	○	○	○
It is ridiculous for a woman to run a train and a man to sew clothes.	○	○	○	○	○	○	○	○
Women should be concerned with their duties of childbearing and house tending, rather than with the desires for professional and business careers.	○	○	○	○	○	○	○	○
Swearing and obscenity is more repulsive in the speech of a woman than a man.	○	○	○	○	○	○	○	○

Q29 These questions are about experiences you have had in your daily life. We are interested in how often you have had these experiences. It is important, however, that your answers show how often these experiences happen to you when you are NOT under the influence of alcohol or drugs. To answer these questions please determine to what degree the experience described in the question applies to you and click the appropriate number to show WHAT PERCENTAGE OF THE TIME you have had the described experience.	0%	10	20	30	40	50	60	70	80	90	100%	I prefer not to answer this question
Some people have the experience of finding themselves in a place and having no idea how they got there. Click what percentage of the time this happens to you.											○	○
Some people have the experience of finding new things among their belongings that they do not remember buying. Click what percentage of the time this happens to you.											○	○
Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something and they actually see themselves as though they were looking at another person. Click what percentage of the time this happens to you.											○	○
Some people are told that they sometimes do not recognize friends or family members. Click what percentage of the time this happens to you.											○	○
Some people sometimes have the experience of feeling that other people, objects, and the world around them are not real. Click what percentage of the time this happens to you.											○	○
Some people sometimes have the experience of feeling that their body does not seem to belong to them. Click what percentage of the time this happens to you.											○	○
Some people find that in one situation they may act so differently compared to another situation that they feel almost as if they were two different people. Click what percentage of the time this happens to you.											○	○

Some people sometimes find that they hear voices inside their head which tell them to do things or comment on things that they are doing. Click what percentage of the time this happens to you.

Q30 Debrief & Re-consent Form

This study was an anonymous investigation into use of Internet pornography (IP) and how its consumption can affect the way people think, feel about themselves and others, and act. Some young people watch IP and this study was designed to measure if this is something young adults are doing occasionally or if it is something they are doing more consistently and in ways that may interfere with other important things in their life.

This study was also designed to measure if there are any associations between the amount and way young adults watch IP and the attitudes they have to themselves and their opposite gender. This includes how young adults view relationships and sexual intimacy, and stereotypical attitudes about girls and women, including attitudes about subjugation and aggression.

This study is being conducted by Dr. Wayne Warburton, Senior Lecturer in developmental psychology at Macquarie University (9850 8643; wayne.warburton@mq.edu.au) and Shireen Bernstein (0410 797 220; shireen.bernstein@students.mq.edu.au), Masters of Research/PhD candidate at Macquarie University. This study is being conducted to meet the requirements of a Masters of Research under the supervision of Dr. Wayne Warburton of the Department of Psychology.

When you chose to participate, you were asked to complete an anonymous survey about your use of Internet pornography and attitudes and behaviours linked to that use. This Internet Pornography survey and Gender Attitudes survey took approximately 25 minutes to complete. Due to the personal nature of these questions, this online survey should have been completed in private (not at a public terminal.

Please note that although you will be taken to a separate survey at the completion of this survey so that your research participation can be credited, your data from the anonymous survey will be cached separately and cannot be linked to the details entered at the course credit section. You will receive a credit of 30 minutes (1 credit) of research participation on completion of this survey. You were free to withdraw from participation in the research at any time without having to give a reason and without consequence or penalty. If you decided to withdraw you would not be required to forfeit your course credit. Any information or personal details gathered in the course of the study are confidential, except as required by law. No individual will be identified in any publication of the results. Both Ms. Shireen Bernstein and Dr. Wayne Warburton will have access to this data. A summary of the results of the data can be made available to you on request – just email Shireen Bernstein (shireen.bernstein@students.mq.edu.au).

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics

& Integrity (telephone (02) 9850 7854; ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

If your participation in this study has caused you any distress, please contact Campus Wellbeing services (9850 7497, campuswellbeing@mq.edu.au).

Additionally other sources of support include:

- Lifeline (13 11 14) a 24 hour/7 day a week Crisis support line.
- Beyondblue (1300 22 46 36) a 24 hour/7 day a week counseling service staffed by trained mental health professionals.
- 1800 Respect (1800 737 732), the National Sexual Assault, Domestic and Family Violence Counselling Service for people living in Australia

Please contact Shireen Bernstein @ shireen.bernstein@students.mq.edu.au if you have any other questions about this research.

Now that you have read this debrief information and consent form, which fully discloses the nature of this study, you can ask that we do not use your data. If you choose the 'NO, I no longer consent for the use of my data for this research' option, your anonymous data will be marked for deletion and you will then be taken to the course credit registration page. If you choose the 'YES, I still consent for the use of my data for this research' option, you will then be taken directly to the course credit registration page. We hope that you will choose to allow us to use your anonymous data.

Thank you again for participating and please remember that your responses are **anonymous**, there is no way to link responses to a particular student. If you still consent to the use of your anonymous data, please click on the link below. If you do not, click the bottom link:

○ Yes, I still consent to the use of my anonymous data in this study

○ No, I no longer consent to the use of my anonymous data in this study

END OF SURVEY.