



Self-Reported Online Child Pornography Behavior: A Psychological Analysis

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Abstract

Limited research has been conducted on the differences between those individuals who view, download, or share online child pornography (CP) from those who do not. Using Bandura's theory of reciprocal determinism, the current study tested whether Internet CP-users differed from non-CP users in their personality characteristics. 307 respondents completed an online survey: 277 were classified as non-CP users, and 30 were classified as CP users. Statistical analyses revealed a relationship between higher scores on exploitive-manipulative amoral dishonesty (EMAD) traits, lower scores on internal moral choice (IV), and the viewing of child pornography. Furthermore, the study suggests women are engaging in Internet CP consumption more often than previously suggested. Implications and limitations of the findings are discussed and suggestions for future research are presented.

Keywords: Bandura's theory; Child Pornography; Internet consumption; Online Survey

Introduction

Children have been treated and viewed as sexual objects and included in erotic literature and drawings long before the invention of the Internet (Wortley & Smallbone, 2006). During most of the twentieth century, child pornography was a restricted activity, and sexualized images of children were locally manufactured and traded. The producers of child pornography created traditional hard-copies, which were of poor quality, difficult to obtain, and rather expensive (Wortley & Smallbone 2006). However, the innovation of the Internet and the World Wide Web (WWW) has created a pseudo-anonymous world filled with an unlimited amount of information, which dramatically changed the underground world of child pornography. By unexpectedly becoming the new medium

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for intent, motive, and ambition, the Internet has become a vital part of the child pornographer's criminal tradecraft.

Thanks to the Internet, the amount of child pornography produced and its availability have increased, along with the efficiency of its distribution, and its accessibility by child pornography users (Wortley & Smallbone 2006). In addition, surveys indicate the consumption of child pornography largely exceeds the prevalence of child sexual abuse (Frei Erenay Dittmann & Graf, 2005). Thus, there are more consumers of child pornography than there are child sexual abusers. Even those child pornography users who do not physically molest a child, but merely receive and collect the images, nonetheless, "play a role in the sexual exploitation of children" (Lanning 2001, p. 86). "[C]hild pornography therefore represents and preserves that abuse or sexualized image for as long as that photograph (or video) remains" (Taylor & Quayle 2003, p. 8). In other words, sexualized images of children become a permanent record of the abuse that occurred in order to create the pornographic images (Calcetas-Santos 2001).

With the increase in accessibility via the Internet, research suggests the child pornography industry generates approximately \$3 billion annually, and there are roughly 100,000 websites offering illegal child pornography (Ropelato, 2006). Nonetheless, we have no idea as to the number of people who actually collect or possess child pornography (Taylor & Quayle, 2003). According to the United States Department of Justice's National Incident-Based Reporting System (NIBRS), which collects crime statistics including the number of incidents for child pornography, the proportion of all incidents of pornography involving sexualized children increased from 15 percent in 1997 to 26 percent in 2000 (Finkelhor & Ormrod 2004).

A haunting question in the current literature remains unanswered: who are these consumers of Internet child pornography? Despite the increased consumption of online child pornography, limited research has been conducted on the differences between those individuals who view, download, or share online child pornography from those who do not. The research that does exist tends to only analyze those individuals who have been arrested and are currently in the forensic or criminal population (e.g., Frei et al 2005; Wolak Finkelhor & Mitchell, 2005). In addition, many of these individuals are arrested for the primary offense of child sexual abuse, and it is only during the investigation that their child pornography crimes become known (Taylor & Quayle 2003).

The lack of previous research on the psychological or personality characteristics of Internet child pornography users has currently left a significant gap in the literature (Taylor & Quayle, 2003). Little systematic and empirical work has been conducted regarding the psychological risk factors of use for *Internet* child pornography; although, some research exists on the personality characteristics for consumers of various types of *non-Internet* pornography (see review by Fisher & Barak 2001). For example, in a study conducted by Bogaert (1993), 160 undergraduate men's personality characteristics, such as aggression, psychoticism, and Machiavellianism, were assessed in order to determine if certain individual differences would incline them to seek out certain types of non-Internet sexually explicit videos, such as adults involved in sexual violence or sexual acts involving children. The results indicated that only 3% of the subjects preferred to view non-Internet videos depicting children in a sexual nature, and the personality characteristics associated with this pornographic choice were aggression and dominance (Bogaert 1993). Although this study did not analyze the consumers of Internet child pornography

specifically, it remains one of the most inclusive personality studies regarding sexually explicit videos.

The underlying theoretical foundation of the current study assessed how child pornography users at large differ from non-users. The expectation of different characteristics of users by nature of content was an extension of Bandura's (1977) theory of reciprocal determinism. According to Bandura (1977), behavioral, psychological, and environmental factors all interact and exert bidirectional influences on human nature. In other words, the factors intermingled and affected one another in multiple directions; however, the strength and influence of each factor varied and depended on the different situations and settings (see Figure 1; Bandura 1977; Bandura 1994).

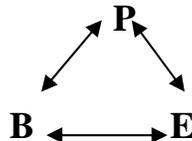


Figure 1. The three factors for reciprocal determinism (i.e., P=psychological, B=behavioral, and E=environmental) may interact in different directions with varying degrees of power (Bandura 1977; Bandura 1994).

Williams, Howell, Cooper, Yuille, and Paulhus (2004) have suggested Bandura's (1977) theory of reciprocal determinism may have the answer to why some people use pornography when others do not. Bandura's (1994) theory suggested that individuals with certain personality traits are attracted to certain types of media content. In Williams et al.'s (2004) study, the results indicated that the college students with the sub-clinical (i.e., the individual had some psychopathic traits but did not meet all of the diagnostic criteria for psychopathy personality variable) were more likely to actively seek out pornographic materials than any other personality trait studied (e.g., extraversion, stability), which supported Bandura's (1977) theory of reciprocal determinism. If this theory can be applied to the use of non-Internet pornographic materials, it was likely the theory could explain why some people use Internet pornography, including those images that sexually depict children. Thus, some individuals may have different psychological traits, which play a role in their choice to view, trade, and download child pornography on the Internet.

Current Study

The purpose of the current study was to answer the following question, "Who are these consumers of Internet child pornography?" The sample was drawn from a population of Internet users via an anonymous survey, which shifted away from the forensic or criminal populations utilized in previous research. The demographic, personality, and behavioral characteristics of the Internet sample were investigated in order to examine the existence of any discriminating traits or factors between the users and non-users of Internet child pornography. This analysis provided valuable information, regarding the types of individuals who utilized Internet child pornography, where there was previously a significant gap in the literature.

In order to test Bandura's theory of reciprocal determinism, the current study utilized several questionnaires in order to operationalize and measure Bandura's psychological, behavioral, and environmental factors; however, only the psychological and behavioral factors were analyzed in this current paper due to page requirements and

brevity. In addition, discussing and expanding upon the environmental factor and its relationship to Internet child pornography consumption would be greatly facilitated in a separate, exclusive article. The psychological factor was measured using the following three self-report questionnaires or scales: Goldberg's (1992) modified Big 5 questionnaire, Moral Decision-Making Scale (Rogers Smoak & Liu, 2006), and Altemeyer's (1998) Exploitive-Manipulative Amoral Dishonesty scale. All of these questionnaires were previously validated and peer-reviewed in the areas of deviant computer behavior (Rogers Seigfried & Tidke, 2006; Rogers, Smoak, et al., 2006). Since the scales were previously used to measure computer criminal deviance (e.g., hacking), the authors chose to utilize the same questionnaires in this study of Internet child pornography, another example of deviant computer use.

Specifically, the Big 5 questionnaire measured the respondent's level of openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism. In the Moral Decision-Making Scale (MDKS), the respondent's self-reported level of internal, hedonistic, and social values when making moral choices or decisions was measured in order to determine the individual's level of moral development. Finally, the Exploitive-Manipulative Amoral Dishonesty (EMAD) scale measured the respondent's level of exploitive, manipulative, and dishonest tendencies. Overall, these three scales provided a measure of the respondent's various personality characteristics and traits in order to operationalize Bandura's psychological factor.

In order to measure the behavioral aspect of Bandura's theory of reciprocal determinism, the respondents were categorized as either child pornography users or non-child pornography users based on their self-reported online behaviors as measured by the Online Pornography Survey (OPS). The respondents were identified as consumers of online child pornography if they reported engaging in any of the following behaviors involving or featuring individuals under the age of 18 years:

- Knowingly searched for pornographic materials;
- Knowingly accessed a website in order to view pornographic materials;
- Knowingly downloaded pornographic materials; and
- Knowingly exchanged or shared pornographic materials with someone else over the Internet.

Those respondents who did not report any of the online behaviors listed above were labeled as non-child pornography users.

To develop a framework for exploring individual differences related to Internet child pornography, research focusing on other online deviant behaviors was reviewed (Rogers et al 2006; Rogers, Smoak, et al., 2006). While these studies focused on hacking behaviors and not Internet child pornography, the element of online deviance is a common enough thread to allow their research design and findings to be relevant to the current study. By measuring the psychological and behavioral relationship in Bandura's (1977) theory of reciprocal determinism, the current study theorized that individuals who consumed Internet child pornography (behavioral) differed in their personality characteristics (psychological) from those individuals who did not utilize Internet child pornography. Specifically, the following expectations were based on the relationship between the psychological factor and behavioral aspect of Bandura's model (i.e., $P \rightarrow B$):

- Neurotic Individuals will be more likely to use child pornography.
- Introverted individuals will be more likely to use child pornography.
- Individuals open to experience will be more likely to use child pornography.

- Agreeable individuals will be less likely to use child pornography.
- Conscientious individuals will be less likely to use child pornography.
- Exploitive and manipulative individuals will be more likely to use child pornography.
- Individuals with lower moral decision-making scores will be more likely to use child pornography.

Method

Participants

Subjects were voluntarily recruited via the Internet by publicizing or advertising the survey using various online resources, such as chat rooms, bulletin boards, and email discussion forums. In order to take the online survey, the respondents had to indicate they were 18 years of age or older. As a default, the respondents also required the ability to understand English since the survey was written in that language. The participants were not provided with a monetary incentive; the survey clearly stated the respondents' reward for completing the survey was the knowledge they were aiding scientific research.

The questionnaires appeared in the following order for all subjects: demographics survey, Big 5 personality inventory, Online Pornography Survey, Moral Decision-Making Survey, and the Exploitive-Manipulative Amoral Dishonesty scale (EMAD). The number of respondents varied for each survey due to the fact subjects did not complete all of the questionnaires for unknown reasons. 482 participants completed the demographics questionnaire; 426 participants completed the Big 5 questionnaire; 375 participants completed the pornography questionnaire; 357 participants completed the moral choice questionnaire, and 346 respondents completed the EMAD questionnaire. After removing the subjects that did not finish all of the scales, along with those individuals that left uncompleted sections, the final number of respondents was 307.

Instruments

The online survey was comprised of several questionnaires, many of which were previously used or adapted from several studies in the area of deviant computer behavior (Rogers, Seigfried, et al., 2006; Rogers, Smoak, et al., 2006). The demographics questionnaire was adapted from the Rogers, and Seigfried, et al. (2006) study and recorded the respondents' basic information, such as age, gender, and marital status. The Online Pornography Survey (OPS) was a spin-off from Rogers' (2001) Computer Crime Index (CCI), which measured the frequency and prevalence of self-reported deviant computer behavior. The OPS survey determined the extent to which the respondents used the Internet for sexually explicit material, and it specifically identified whether the respondent used adult, animal, or child pornography. The only significant change between the CCI and OPS survey was the content of the questions (i.e., computer hacking versus child pornography use), for the scoring and the systematic approach of the survey remained the same.

In order to assess the personality characteristics of the respondents, the modified Goldberg (1992) Big-5 questionnaire was used to measure the following traits: extraversion, neuroticism, openness to experience, conscientiousness, and agreeableness. In addition, the Moral Decision-Making Scale (MDKS) (Rogers, Smoak, et al., 2006) was administered in order to measure the respondents' moral choice and decision-making tendencies, specifically on the dimensions of social, internal, and hedonistic decisions. Finally, the Exploitive-Manipulative Amoral Dishonesty Scale (EMAD) (Altemeyer, 1998)

identified the respondents' level of social dominance in the areas of exploitation, manipulation, and dishonest behavior.

The Cronbach's alpha was calculated in order to measure the reliability of each scale. The following are the reported Cronbach's alphas for the Big 5 subscales: extraversion ($\alpha = .86$), agreeableness ($\alpha = .86$), conscientiousness ($\alpha = .86$), neuroticism ($\alpha = .79$), and openness to experience (intellect) ($\alpha = .86$). For the EMAD total score, the Cronbach's alpha was ($\alpha = .86$). The Moral Decision-Making subscales had the following reported Cronbach's alphas: Social ($\alpha = .73$), Internal ($\alpha = .76$), and Hedonistic = ($\alpha = .72$). Finally, the Online Pornography Survey yielded a Cronbach's alpha of ($\alpha = .91$).

Design and Procedure

The study was conducted electronically using an Internet-based survey, which was advertised in chat rooms, bulletin boards, and discussion forums. Once the respondents accessed the website, the home page explained the study while acting as a consent form to which the respondents had to agree or decline to participate. If the prospective respondents agreed, they had to click on the "I Agree" button in order to participate. After clicking on the "I Agree" button, the respondents were then instructed they could not use the "back button" at any time during the course of the survey. Once this requirement was acknowledged, the respondents were asked to fill out five questionnaires, which approximately took 20 to 30 minutes to complete in total. Once the questionnaires were completed, the participants were taken to a page which thanked them for their time.

At no time was the respondent asked for any identifying information (e.g., name). In order to protect the respondent's anonymity and confidentiality, the respondent was provided with an ID number, which the database randomly assigned to the participant's responses. Thus, the responses to the questionnaires could not be linked or matched to any particular subject because no identifying information was requested; it was extremely important to uphold the respondent's anonymity since some of the questions involved the admission of criminal activity via the Internet (e.g., exchanging child pornography). As for the questionnaire items, the respondents were not forced to answer the questions; instead, any item could be "skipped" at any time.

Throughout the survey, the word "pornography" was defined by the participant's age in the sexualized images. Specifically, child pornography was defined in the Online Pornography Survey as "pornographic materials featuring individuals under the age of 18 years". By defining child pornography without the word "child", it was thought this would be less inhibiting for the respondents when admitting to criminally sanctioned behaviors. Thus, the word "child" was never mentioned throughout the Online Pornography Survey. Once the survey was completed, a statistical analysis was conducted in order to determine whether or not there were psychological differences between child pornography users and non-users.

Results

Descriptive Statistics

Of the 307 respondents, 277 (90.2%) were classified as non-users of child pornography and 30 (9.8%) were classified as users of child pornography. In other words, nearly 1 out of 10 people are consuming Internet child pornography in this study. Of the

307 respondents, 181 (59%) were female and 126 (41%) were male. As shown in Table 1, of the 30 child pornography users, 20 were male and 10 were female. Interestingly, this indicated that there was a 2:1 ratio of men to women who were using child pornography, which amounted to 15.9% of the males and 5.5% of the females. The respondents' ages ranged from 18 years to 81 years of age with a mean of 34.6 years. In addition, 24 (80%) of the child pornography users were 35 years of age or younger (see Table 1).

Due to missing data, only 301 respondents identified their race on the demographics questionnaire. The variable "race" became dichotomous because the authors collapsed the data since a variety of races were reported on the demographics questionnaire, which led to a small cell count. Of the 301 respondents, the majority (81.4%) were white, and over half (57.1%) of the child pornography users were white (see Table 1). In addition, 306 respondents (1 missing) reported their marital status with almost half of the respondents ($n = 152$) identifying themselves as single, never married while 129 of the respondents were married or in a common law relationship. Finally, 25 respondents stated they were separated, divorced, or widowed. As shown in Table 1, 19 (63.3%) of the child pornography users were single, never married.

		Frequency (Percentage)		
		Child Pornography User	Non-Child Pornography User	Total
*Gender	Female	10 (33.3%)	171 (61.7%)	181 (59.0%)
	Male	20 (66.7%)	106 (38.3%)	126 (41%)
Age	18-25	12 (40.0%)	85 (30.7%)	97 (31.6%)
	26-35	12 (40.0%)	85 (30.7%)	97 (31.6%)
	36-45	3 (10.0%)	46 (16.6%)	49 (16.0%)
	46-55	2 (6.7%)	33 (11.9%)	35 (11.4%)
	56 or older	1 (3.3%)	28 (10.1%)	29 (9.4%)
**Race	White	16 (57.1%)	229 (83.9%)	245 (81.4%)
	Other	12 (42.9%)	44 (16.1%)	56 (18.6%)
***Religion	No Religion or Agnostic	7 (23.3%)	91 (33.2%)	98 (32.2%)
	Christian	10 (33.3%)	140 (51.1%)	150 (49.3%)
	Other	13 (43.3%)	43 (15.7%)	56 (18.4%)
Marital Status	Single, Never Married	19 (63.3%)	133 (48.2%)	152 (49.7%)
	Married or Common Law	9 (30%)	120 (43.5%)	129 (42.2%)
	Separated, Divorced, or Widowed	2 (6.7%)	23 (8.3%)	25 (8.2%)
Highest Degree of Completed Education	< HS Diploma	1 (3.6%)	2 (.7%)	3 (1.0%)
	GED or H.S. Diploma	4 (14.3%)	50 (18.2%)	54 (17.8%)
	Associates or Bachelors	17 (60.7%)	137 (49.3%)	154 (50.8%)
	Masters or Ph.D.	6 (21.4%)	86 (31.3%)	92 (30.4%)
Annual Income	\$0 to \$20,000	12 (40%)	76 (27.6%)	88 (28.9%)
	\$20,001 to \$40,000	7 (23.3%)	74 (26.9%)	81 (26.6%)
	\$40,001 to \$60,000	3 (10%)	65 (23.6%)	68 (22.3%)
	\$60,001 to \$80,000	3 (10%)	22 (8%)	25 (8.2%)
	\$80,001 to \$100,000	2 (6.7%)	18 (6.5%)	20 (6.6%)
	More than \$100,001	3 (10%)	20 (7.3%)	23 (7.5%)
* $\chi^2(1, N = 307) = 9.02, p < .01$ ** $\chi^2(1, N = 301) = 11.99, p < .01$ *** $\chi^2(2, N = 304) = 13.76, p < .01$				

Table 1: Respondents' Demographics by Child Pornography Use

Regarding the participants' religion ($n = 304$, 3 missing), almost half of the respondents (49.3%) stated they were Christian. The second largest group of respondents

(32.2%) reported they were either not religious or agnostic. As shown in Table 1, the largest religious group for the child pornography users was the category “other” (43.3%), which contained various self-reported religions which had to be collapsed into one variable due to small cell counts. Ignoring the religious category, “other”, the second largest group of child pornography users identified themselves as Christians (33.3%). As for the respondents’ highest level of completed education ($n = 303$, 4 missing), the majority of the respondents (81.2%) had some form of completed college education (see Table 1). In addition, the majority (82.1%) of the child pornography users had completed some level of college (see Table 1). Finally, of the 305 respondents who recorded their annual income (2 missing), 77.8% made \$60,000 or less. In addition, Table 1 shows over half of the child pornography users ($n = 18$) reported an annual income of \$20,000 or more.

The descriptive statistics in Table 1 indicated the respondent’s gender, religion, and race were correlated with the respondent being classified as either a child pornography user or non-child pornography user. Of those, the differences in gender and race were notable; however, the religion breakdown was less interpretable given the “other” category was comprised of numerous religions. Finally, non-white males were more likely to report the use of Internet child pornography.

Psychological and Behavioral (P→B) Relationship

Independent T-tests were conducted in order to determine if there was a relationship between any of the psychological factors (i.e., the Big-5, Moral Choice Decision-Making, and the EMAD personality traits) and the behavioral factor (i.e., child pornography use). As shown in Table 2, the analysis revealed child pornography users showed significantly higher scores on the EMAD total compared to non-child pornography users ($M = 80.73$ vs. $M = 63.14$, respectively; $t(305) = -4.15$, $p < .001$). In addition, child pornography users had lower scores on the Moral Choice IV total than the non-child pornography users ($M = 25.73$ vs. $M = 28.90$, respectively; $t(31.56) = 2.54$, $p < .01$; see Table 2).

	Mean		Difference	SD		t	p
	Score						
	Non-CP User	CP User		Non-CP User	CP User		
EMAD Total	63.14	80.73	-17.593	1.323	4.067	-4.152	0.00*
Moral Choice							
HED Total	25.62	25.50	0.121	4.779	6.786	0.095	0.92
SV Total	22.86	20.43	2.426	5.854	7.389	1.740	0.09
IV Total	28.90	25.73	3.169	4.240	6.700	2.536	0.01**
Big 5							
Extravert	43.20	43.20	0.002	9.107	13.066	0.001	0.99
Neurot	49.03	47.73	0.900	8.078	12.447	0.387	0.70
O to E	50.47	50.60	-0.131	7.360	13.158	-0.053	0.95
Agree	49.03	47.73	1.292	8.420	13.212	0.524	0.60
Conscien	48.29	45.67	2.622	8.396	13.850	1.017	0.31
* $p < .001$ ** $p < .01$							
EMAD = Exploitive Manipulative Amoral Dishonesty, HED = Hedonistic Values, SV = Social Values, IV = Internal Values, Extravert = Extraversion, Neurot = Neuroticism, O to E = Openness to Experience, Agree = Agreeableness, Conscien = Conscientiousness							

Table 2: T-Test Results for Psychological Traits and Child Pornography Use

The remaining psychological factors (i.e., moral choice hedonistic values, moral choice social values, extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness) were not significantly related to child pornography use (see Table 2). Overall, the analysis suggested there was a relationship between people's psychological factors (EMAD and IV) and their behavior (child porn use). Specifically, individuals with higher scores on the exploitive-manipulative amoral dishonesty trait and lower scores on the Moral Choice Internal Values trait were more likely to engage in child pornography use.

Discussion

The purpose of the current study is to answer the following question, "Who are these consumers of Internet child pornography?" The analysis provides valuable information regarding the types of individuals that utilize sexualized images of children. The consumption of Internet child pornography is related to whether the individual expressed an exploitive-manipulative personality trait and lower moral choice internal values, which supports the authors' expectations. However, the remaining psychological traits (i.e., moral choice hedonistic values, moral choice social values, extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness) are not significantly related to Internet child pornography use. An exploitive-manipulative trait and lower moral choice internal values may be expected since the individuals using Internet child pornography are engaging in an illegal activity, and their success depends upon their ability to manipulate and exploit various facets within the Internet in order to gain access to the deviant pornographic materials. In addition, the exploitive-manipulative trait is similar to other individuals engaging in deviant computer crimes, such as hacking (Rogers, Smoak, et al., 2006).

Lower moral choice internal values suggest the consumers of Internet child pornography may not have the same personal, moral compass that non-users refer do when determining what is "right and wrong". A person's internal values are not determined by society's laws or regulations but are instead a private, moral choice. For instance, drinking alcohol is illegal for individuals that are under an age set by law. Despite the fact society says it is illegal for people who are younger than the drinking age to drink alcohol, some people make the moral choice that drinking is nonetheless "right for me". This moral decision is an example of an individual's internal choice rather than it resulting from society or hedonistic (i.e., pleasure-seeking) factors. Thus, Internet child pornography consumers may understand it is socially illegal, but they may not believe it is "wrong" for them personally, compared to non-child pornography users who believe it is both morally wrong at the social and individual level. Further exploration is needed in order to understand the differences in moral decision-making choices for Internet child pornography users and non-users.

The survey's results also suggest women may be engaging in Internet child pornography consumption more than originally suspected in previous literature. For this study's sample, 5.5% ($n = 10$) of the women are child pornography users. This statistic is surprising since the crime of child pornography has clearly been considered to be a male phenomenon. This finding alone implores the need for future research to gather samples that are not gender biased in order to investigate the relationship between gender, online child pornography use, and other psychological, and environmental factors.

In addition to gender, both the racial and age characteristics of the study's sample vary from previous demographic profiles of Internet child pornography consumers. In particular, the racial background was surprising since only 57.1% of the child pornography consumers were white while 83.9% of the non-child pornography users were white. For instance, the National Center for Missing & Exploited Children's National Juvenile Online Victimization (N-JOV) study noted that 91% of the offenders in their sample were white (Wolak et al., 2005). However, the current study suggests the use of Internet child pornography, for the current study's sampled population, may be more racially diverse. In addition, the respondents' ages greatly varied in the current study compared to the N-JOV's study with 80% of the individuals using Internet child pornography being under the age of 35 years compared to only 58% of the N-JOV offenders being under the age of 39 years (Wolak et al 2005).

Overall, the demographic information gathered in the current study suggests more research is needed in order to determine if there are any background characteristics common amongst child pornography users. As technology continues to develop and expand, it makes intuitive sense that the consumer of Internet child pornography will continue to change as well. Thus, previous research may have suggested that Internet child pornography was the crime of a "dirty, old man". In addition, previous reports (Oliver & Hyde 1995 and Malamuth 1996 as cited in Frei et al 2005) suggest women have a "complete lack of susceptibility to visual 'erotica' or ordinary pornography seems to be the expression of a fundamental difference between the two sexes" (Frei et al 2005). However, this current study suggests otherwise; thus, there is an obvious need for future research to further investigate the modern consumer of child pornography.

Conclusion

As technology becomes the medium of choice for some criminals, society must react by trying to understand the relationship between technology and crime. Already, the World Wide Web has created a well-organized environment that increases the amount of child pornography produced, its availability, and the efficiency of distribution to other child pornography users (Wortley & Smallbone 2006). However, we know relatively little about the consumers of Internet child pornography (Taylor & Quayle 2003). This current study was an attempt at understanding the child pornography consumer; yet, future research must continue if we are going to make a statement about the relationship between personality characteristics and Internet child pornography use. It is important to understand the individuals that consume Internet child pornography as this knowledge will assist therapeutic treatment strategies while aiding law enforcement in serious criminal investigations. All in all, child pornography consumption over the Internet is likely to continue to increase, and unless researchers decide to make this area of study a priority, our knowledge and ability to understand the relationship between this crime and technology will remain stagnant and lost in the web of cyberspace.

Limitations

The current study is not without limitations. First, the sample was not randomly chosen from an Internet population; thus, there is no claim that it is representative of the population of Internet users at large. In addition, there may be individual differences between those individuals that chose to answer the survey completely or at all versus those that did not. The study's respondents obviously were willing to take the time to answer

the questionnaires so there may be a “volunteer bias”. In addition, it was impossible to validate any of the demographic information. Essentially, some respondents could have misrepresented themselves by incorrectly responding to the items in a way that distorted their true characteristics or behavior. Of course, the same problem presents itself in any anonymous, hard-copy survey of deviant behavior. However, one of the clear advantages to conducting research via the Internet for this population is the fact that the behavior in question is criminally sanctioned; thus, it is extremely important to provide anonymity and confidentiality to these respondents if honesty is what the researcher desires. The method used for this study provided an effective cloak of safety, privacy, and anonymity for respondents, which allowed them to be open and honest about their experiences in engaging in deviant and/or illegal behavior.

Despite these limitations, conducting research via the Internet provides researchers with the opportunity to investigate active users of child pornography within their own environment. Rather than a forensic or therapeutic setting, this sample provides extensive information about those individuals that use the Internet in a deviant manner for child pornography while the person remains in his/her cyberspace atmosphere. Future psychological research conducted over the Internet in the area of child pornography is possible and should continue, as there are an unlimited number of respondents in the realm of cyberspace all having the ability to provide psychological, environmental, and behavioral information.

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