

INTERNET ADDICTION: IMPLICATIONS AND ASSESSMENT EDUCATION FOR
PROVIDERS

By

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Abstract

The proliferation of internet accessibility and electronic devices has allowed problematic internet use or internet addiction (IA) to explode worldwide in the past two decades. Popular Applications such as gaming, pornography, gambling, and social media are wildly popular internet pastimes with resulting high abuse potential. Social, occupational, fiscal, and interpersonal problems have been reported, as have high levels of co-morbid mental illnesses. In 2013, the American Psychiatric Association (APA) added Gambling Disorder to the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*, the first behavioral addiction recognized by the APA. In light of the mounting evidence supporting IA as a serious threat to mental health, an IA educational webinar was developed for providers (nurse practitioners and physicians) to increase knowledge and screening for IA in the clinical setting.

Keywords: Problematic Internet use, internet addiction, screen addiction, net addiction, and compulsive internet use.

Introduction

Worldwide, Internet Addiction (IA) has gained considerable attention as an emerging public health crisis. Young (1998) pioneered case study research linking excessive time spent online with relationship issues, job loss, poor academic performance, financial difficulty, and even alterations in personality. Since Young's initial findings, many researchers have produced compelling data suggesting extreme amounts of time spent online is detrimental to one's physical, emotional, behavioral, and even fiscal health (Kim, Namkong, Ku, & Kim, 2008; Kuss & Lopez-Fernandez, 2016; McCormack, Shorter, & Griffiths, 2013). Further complicating the issue is the vast number of internet activities and mobile phone applications available for use. Popular examples include gaming, pornography, social media, gambling, and shopping applications. Definitions of what comprises IA are debatable, but the universal denominator remains the same – if it is found that internet use interferes with important areas of functioning in one's daily life (school, work, relationships, etc.), then it is significant and warrants clinical attention.

Background and Significance

In their systematic review, Kuss, Griffiths, Karila and Billeux (2014b) reported IA prevalence rates range “from 0.8 % in Italy to 26.7 % in Hong Kong” (p. 1). Of the six countries included in Mak et al.'s (2014) study among 12-18 year olds ($n = 5, 366$), the Philippines reported a 21% IA rate, followed by Hong Kong (16%), Malaysia (14%), South Korea (10%), and Japan (6%). Asia has provided larger-scaled studies compared to other countries, particularly in Taiwan and China (Mak et al., 2014). In the U.S. and Europe, it is estimated between 1.5% and 8.2% of the total population suffer from IA (Weinstein & Lejoyeux, 2010). Southeast Asia enjoys better bandwidth availability, telecommunication infrastructure, and more smart phone

usage compared to most developed nations. These trends support Griffiths' availability hypothesis, which states "where there is increased access and opportunity to engage in an activity, there is an increase in the numbers of people who engage in the activity" (Kuss & Griffiths, 2011, p. 68). Indeed, in the countries included in Mak et al's study (see below), 41%–84% of youth had smart phones versus 46% among American adolescents (2014). In North America, internet usage statistics showed an 88.1% penetration rate (percent of population) and 196.1% growth increase between 2000- 2017. (Miniwatts Marketing Group, 2017). In 2015, President Obama publicly supported the Federal Communication Commission's move to designate high speed internet as a public utility. This "net neutrality" provision ensured internet providers would no longer limit or slow online content to drive profits (Ruiz & Lohr, 2015), a move that will likely increase IA severity if Griffiths' hypothesis is correct.

Because of the predominance of self-reporting, establishing prevalence is difficult. Often, "attempts to measure the phenomenon are clouded by shame denial, and minimalization" (Block, 2008, p. 306). A lack of consensus on formalized diagnostic criteria is another barrier (Kuss & Fernandez-Lopez, 2016); Mak et al. explained, "the prevalence of IA varies across different scales, covering different dimensions of internet addictive behavior" (2014, p.720). Finally, cultural components complicate matters. In Asia, threats to the strong cultural focus on school and career pursuits are often met with trepidation and sometimes overreaction. Thus, prevalence rates in Asia might be lower than reported (Kuss et al., 2014b).

The internet has provided many with opportunities to engage in novel gaming activities. Massively Multiplayer Online Role-Playing Games (MMORPG's) are among the most popular, where a player can create a character who engages in a virtual community with potentially millions of players. Kim, Namkoong, Ku, & Kim (2008) noted:

“Players can assume any role they desire, collaborate with other players in the game to succeed in even more complex goals, and accomplish missions of a fairly aggressive nature. Players have the power to talk online, make friends and conduct transactions involving real or virtual assets (p. 212).

Such gaming pursuits are particularly appealing to adolescents, young adults, and males as they seek to expand social networks and competitive activities (Kim et al., 2008). Gentile (2009) conducted a Harris Poll in 2007 and found roughly 8% of American youth ages 8-18 sampled demonstrated pathological patterns of usage ($n = 1,178$). Kim et al. also associated heavy online gaming with narcissistic tendencies, aggressive personality traits, and poor impulse control (2008). Additionally, researchers have found recurrent themes of emotional distancing, resentment toward other users, frustration fatigue, invalidation, reactivity, and reduced or non-existent physical intimacy among partners of heavy online gamers (Northrup & Shumway, 2014).

Another internet application attracting considerable attention in the realm of psychiatry is internet pornography. Individuals with a proclivity to spending too much time accessing online porn described greater levels of dissatisfaction with partners, increased performance anxiety, impotence, delayed or absent ejaculation, and sometimes, desire for “increasingly more explicit, bizarre” and even, “violent images” (Cavaglioni, 2008, p. 301). Wright and Randall (2012) reported men who regularly watched online pornography are more likely to pay for sex, have multiple partners, and engage in extramarital sex ($n = 1,079$). Interestingly, partners of cyber-porn aficionados reported narrative accounts strikingly similar to those involved with gaming enthusiasts (Schneider, Weiss, & Samenow, 2012). Another study by Mussess, Finkenauer, Kerkhof, and Righetti’s (2015) found impulsive internet users, regardless of their

preferred activity, were less likely to be trusted by their partners because of perceived lack of self-control.

Social media is an extremely popular internet past time. Facebook, Twitter, Instagram, and MySpace applications have billions of users worldwide and have become a major source of discontent among parents, couples, educators, and employers because of distraction and productivity loss. Studies have shown youth primarily use the internet to bolster their social life. Smahel, Blinka, and Bradford-Brown (2012) found, “higher tendency toward addictive behavior corresponded to higher rates of initiating friendships online” (p. 386). Literature linking increased social media usage to low self-esteem, depression, and social isolation is emerging (Kuss & Griffiths, 2011; Smahel et al., 2012). Of the estimated 320 million Americans with internet access, nearly 263 million of them used Facebook in 2017 (Miniwatts Marketing Group, 2017).

Literature Review

Organization and Outline of Literature Review

The literature review will begin with examining the model chosen to guide this project. Emerging trends in IA assessment, diagnosis, and treatment within the last 10 years will be provided and key IA assessment tools discussed. Key terms included “Internet Addiction”, “compulsive internet use”, “problematic internet use”, and “net addiction”. Databases included CINAHL and PubMed, with English and peer reviewed limit settings.

Conceptual Framework

The conceptual framework chosen to guide this study is Griffith’s (2005) “Components Model of Addiction”. Griffiths’ bio-psychosocial framework, along with *DSM-IV* substance

abuse criteria, provided the basis for gambling addiction criteria. The six key components delineated by Griffiths' are as follows: salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse (2005). Griffiths' diagnostic model was determined particularly useful to guide this project as it serves to conceptualize commonalities observed across most addiction spectrums. The model provides a theoretical basis to other issues of behavioral addiction, including exercise, online shopping, gaming, work, and social media (Kuss, Shorter Van Rooij, Griffiths, & Schoemakers, 2014a). For one to be considered dependent, one must demonstrate five or more of the following characteristics:

Salience. Griffiths defines salience as the addictive activity which “dominates their thinking (preoccupations and cognitive distortions), feelings (cravings), and behavior (deterioration of socialized behavior)” (2005, p. 193). Regardless of the type of internet activity, researchers have demonstrated prefrontal control process modification in accordance with salience (Brand, Young, & Laier, 2014b; Kim et al., 2008; Yang-Sook, Ok-Hee, & Kyeong-Sook, 2014). One subject in Cavaglioni's study (2009) wrote, “since I installed my internet, chatting and browsing porn videos has been my only occupation during the day” (p. 302).

Mood Modification. Mood modification, per Griffiths (2005), “refers to the subjective experience that people report as a consequence of engaging in the particular activity” (2005, p. 193). Brand, Young, and Laier (2014b) explained a neurobiological deficiency in dopamine or D2 receptors are considered partly to blame in circumstances of addictions, compulsions, and conduct disorders. A deficiency in either the neurotransmitter or its neuronal reuptake can lead to mental illness, namely depression and anxiety features. Hou et al. (2012) demonstrated significant dopamine transporter dysfunction in the brains of those addicted to the internet versus

healthy controls. There remains controversy whether dopamine deficiency is a result of sustained IA or the opposite is debated.

Tolerance. Griffiths identified tolerance as “the process whereby increasing amounts of the particular activity are required to achieve the former effects” (2005, p. 194). Cyber gambling and cyber porn abusers have demonstrated positive tolerance trends related to heavy internet usage (Cavaglioni, 2009; McCormack, Shorter, & Griffiths, 2013). Griffiths measured arousal via heart rate in a study comparing problem and regular gamblers. Heart rates in casual gamblers remained elevated once the gambling stopped, whereas problem gamblers had a sharp sudden drop in heart rate (1993). Problem gamblers were defined as those who needed more and more of the stimulant to maintain the “high” experienced during the activity, a key feature of tolerance (Griffiths, 1993). Others, however, urge caution toward supporting tolerance as a diagnostic feature. Kuss et al. (2014a) argued, “spending more time online might be something different than physiological habituation reactions, which could be indicators of loss of control” (p.360).

Withdrawal Symptoms. Griffiths (2005) defined withdrawal symptoms as “the unpleasant feeling states and/or physical effects, which occur when the particular activity is discontinued or suddenly reduced” (p. 194). Critics of IA, state there are not lasting or dangerous withdrawal symptoms secondary to IA compared to illicit and legal substances of abuse. Therefore, withdrawal as a component isn’t applicable (Pies, 2009). Cavaglioni (2009), disagreed – some men in his study reported being unable to achieve an erection or orgasm without the use of cyber porn. Another example is the case of heavy social media use among children, particularly adolescents. Smahel and Bradford-Brown (2012) surmised the internet helps foster friendships and “youths may be searching for friends online to gain the social support they do not have offline” (p.386). Many adolescents, however, experience feelings of loneliness or despair

when access to social media or gaming is suddenly disrupted, especially in cases of real or perceived heightened social isolation. Despite youths reporting emotional stress secondary to screen withdrawal, Pies (2009) argued the subjective nature of self-reporting does not equate to legitimate physiological detriment. Thus, more research is needed if establishment of tolerance and withdrawal as potential components of behavioral addiction is to be made.

Conflict. Griffiths (2005) explained “continual choosing of short term pleasure and relief leads to disregard of adverse consequences and long-term damage which in turn increases the apparent need for the addictive activity as a coping strategy” (p.195). In their theoretical model on IA, Brand et al. (2014a) supported Griffiths’ (2005) premise by explaining the abuser grows accustomed to the internet as a form of escapism, despite negative consequences; further, positive and negative coping methods, along with perceived benefit of usage, greatly influences whether the activity becomes problematic. The association between internet usage as a coping strategy has been found in numerous other studies as well (Cavaglioni, 2009; Skues et al., 2016; Smahel & Bradford-Brown, 2012; Yang-Sook et al., 2014).

Relapse. Relapse, as Griffiths (2005) clarified, “refers to the tendency for repeated reversions to earlier patterns of the particular activity to recur and for even the most extreme patterns typical of the height of the addiction to be quickly restored” (p. 195). Due to the self-reporting nature of most of the IA studies examined, the rates of relapse among recovering internet abusers are difficult to ascertain (Kuss et al., 2014a). Despite limited IA relapse data, some well-constructed studies show relapse is more likely secondary to structural and functional neurological changes (Brand et al., 2014b).

A decrease in gray matter volume has been observed in prefrontal control areas

responsible for executive and decisional functioning. Moreover, Brand et al. (2014b) reported, “changes in the prefrontal areas were correlated with the reported duration of the disorder” (p.8). Weng et al. (2013) found among internet addicts, volume depletion of the orbitofrontal cortex corresponded with Internet Addiction Test (IAT) score severity. The orbitofrontal cortex is a brain structure known to be associated with craving and reacting to environmental cues. In sum, coupled with the added influence of alterations in the dopaminergic reward system between the basal ganglia, nucleus accumbens, and dorsolateral prefrontal cortex, cognitive control abilities have been shown to be deregulated when the internet related stimuli of choice is present (Brand et al., 2014b).

Diagnostic Assessment. Though no officially recognized tool to measure IA exists (Kuss & Lopez-Fernandez, 2016) to date, various IA tools with psychometric properties akin to Griffiths have been developed (Kuss et al., 2014a; Lortie & Guitton, 2013). An analysis of 14 questionnaires identified to assess for IA found three main dimensions of addiction prevailed in most instruments: compulsive use, negative outcomes, and salience, while escapism and withdrawal closely followed (Lortie & Guitton, 2013). Young’s (1998) IAT is the oldest and most widely used diagnostic questionnaire in practice today (Kuss and Lopez-Fernandez, 2016). The IAT requires the person experience five or more of Griffiths' criteria to be considered addicted and was based upon Gambling Disorder criteria; in addition to Griffiths’ components, Young also adds the additional behaviors of craving/anticipation and lying/hiding as diagnostic elements (Van-Rooij & Prause, 2014).

Other well-known tools include Müller, Beutel, and Wölfling’s (2014) Assessment for Internet and Computer Game Addiction Scale (AICA-S) and the Compulsive Internet Use Scale (CIUS) by Meerkerk, Van Den Ejinden, Vermulst, and Garretsen. (2009) The AICA-S includes

16 test items addressing usage, frequency, age, and importantly, type(s) of application most used and incorporates all of Griffiths' addiction components. Alternately, the CIUS tool does not take into account tolerance nor does it possess a validated cut off point to determine severity of symptoms (Meerkerk, et al., 2009). Like the CIUS, the AICA-S utilizes Likert scale responses, and pathology is diagnosed at scores of 13/24 or higher.

The Internet Addiction Test-Sex (IAT-Sex) by Brand et al. (2011c) is based on Young's IAT. The tool substitutes 'online sexual activity' or 'internet sex site' with the IAT's 'online' or 'internet' terms. There are 20 test items and Likert scale responses measuring proclivity and severity of sexual online behavior. Like Young's (1998) IAT, the IAT-Sex test has no cut-off score.

In 2012, Andreassen, Torsheim, Brunborg, and Pallesen developed the Bergen Facebook Addiction Scale (BFAS). Three questions for each of Griffiths' six components are asked. Though no cut off scores were assigned to indicate symptom severity, Andreassen et al. found that BFAS ratings were positively related to both neuroticism and extraversion and negatively associated with conscientiousness; additionally, "heavy Facebook use may interfere with going to bed, and as such, leads to a postponement of both bedtimes and rising times" (2010, p. 511). The BFAS also uses Likert scale responses.

Interestingly, the role of social comfort appears to be lacking in IA assessment methodologies. Lortie and Guitton (2013) recommended more tools be equipped to assess for social motivation regarding IA development and maintenance – specifically, items that test for predilection towards social media. Additionally, they note, "predictive properties are lacking in current assessment tools" (2013, p. 1214), making it difficult to establish prognosis. Moreover, current tools mostly address the internet as a "singular entity" (Van Rooij & Prause, 2014). The

AICA-S is one of few scales that seek to answer what type of online activity is of most interest to the user (Meerkerk, et al., 2009). No tool in practice measures or considers genetic pre-disposition or heritable factors (Winkler, Dörsing, Rief, Shen, & Glombiewski, 2013).

Treatment. In recent years, many therapies have proven beneficial in managing IA. Particular pharmaceuticals have been found helpful, namely anti-depressant, anxiolytic, anti-psychotic, and attention deficit medications (Winkler et al., 2013). Cognitive Behavioral Therapy (CBT) is the most prevalent psychological method of treatment and best-validated approach for reducing total net time and treating co-morbid depression (Kuss & Lopez-Fernandez, 2016; Winkler et al., 2013). CBT allows for identification of specific cognitions as they relate to internet use and takes into account psychopathological symptoms. CBT however has not been shown to be advantageous over other methods, such as group and family therapy, in addressing anxiety or IA status. Older persons are at an advantage compared to youths using the CBT method, and women have greater recovery rates compared to men in both pharmacological and therapy settings (Winkler et al., 2013). No study has been identified examining the efficacy of applying simultaneous pharmaceutical and psychological treatments. Future experimentation involving large samples and randomization is necessary if a determination of treatment protocol is to be made (Winkler et al., 2013).

Implications

Considerable controversy exists around the concept of IA and whether the APA should officially recognize it. Many delegitimize the notion of IA, asserting the internet only serves as a platform for addictive activities. Brand et al. (2014a) explained, “subjects may use several different internet applications excessively without having one certain favorite” ...”in this case, one may argue that the individual is addicted to the internet and not addicted on the internet”

(p.2,) while others have significant difficulty with one or more specific applications (gaming, porn, shopping, social media, etc). One might ask: when does passion become pathology? Regardless of application preference(s) or time spent online, IA's distinguishing factor is one of marked impairment in important area(s) of functioning. Griffiths' (2005) model does not specifically apply blame to the internet. Thus, one can conceptualize the problem as an impulse control or behavioral disorder mirroring those seen with substance dependence.

Still, Pies (2009) argued if IA is a disease "based on a model emphasizing intrinsic suffering and incapacity"... "data regarding course prognosis, temporal stability and response to treatment" is still needed (p.31). Moreover, the benefit of trialed pharmaceuticals and cognitive therapies, along with co-morbidity prevalence studies, have led many to support viewing IA as a manifestation of mental illness, and not a discrete pathological state (Pies, 2009). Hence, many urge caution against labeling someone "addicted". Increased likelihood of co-occurring substance abuse, affective, and personality disorders are extremely common (Kuss & Lopez-Fernandez, 2016) as is impaired distress tolerance, diminished adaptive functioning, and risk-taking behaviors (Ha et al., 2007; Skues, Williams, Olmeadow & Wise, 2016; Wang et al., 2012). Per Block, "about 86 % of IA cases have some other *DSM-IV* diagnosis present" (2008, p.306) while another analysis found 30.9 % of treatment seeking individuals (n = 368) met diagnostic criteria for bipolar spectrum disorders (Wölfling, Beutel, Dreier, & Müller, 2015). A study consisting of self-identified "intensive internet users" (n=27) found most started using the internet at around age nine and developed full-fledged overuse patterns by age 16 (Li, O'Brien, Snyder, & Howard, 2015, p.1). Thus, early recognition and intervention is key.

Despite IA not being officially recognized, the APA has added pathological gambling to the *DSM-5* in 2013, making it the first non-substance related behavioral addiction. The APA also

updated the *DSM-5* by changing ‘substance based addictions’ to the broader category ‘addictions and related disorders’ and added Internet Gaming Disorder as a condition warranting further study (American Psychiatric Association, 2013). The APA additions signal a flux in addiction medicine culture. In response, providers need to understand the science behind IA along with user expectancies for “the user has certain needs and goals which can be achieved by using certain internet applications” (Brand et al., 2014a, p.2).

The link between IA and behavioral health has been made clear; IA is linked to negative behavioral health outcomes and mirrors substance abuse models as delineated by Griffiths’ components. Though in the early stages, pharmacotherapy and psychotherapy are proving to be promising treatment options (Young, 2011; Winkler et al., 2013). Consequently, because of their training in substance abuse screening and treatment, behavioral health clinicians, to include Psychiatric Nurse Practitioners (PMH-NP’s) are in unique positions to areas assist with the recognition and management of IA. Currently, it is unknown how often practitioners are actually screening for IA (Kuss & Lopez-Fernandez, 2016; Van Rooij & Prause, 2014). This project hopes to answer the question whether IA education affects willingness to incorporate IA assessment into practice.

Project Purpose

In providing education regarding IA, it is hoped the practitioner will afford clinical attention to the issue of IA as they would substance-based addictions. Webinar participants, upon completion, will exhibit increases in the following areas: IA knowledge, willingness to screen for IA and understand cognitive behavioral therapy is recommended for patients with problematic internet use.

Methods

Design

This educational, quality improvement project consisted of a webinar offering which included both a PowerPoint presentation and an instructional case study employing Müller et al.'s (2014) AICA-S tool (Appendix A). Scoring criteria were also provided (Appendix B). Griffiths' model served to guide the framework of the PowerPoint and literature review. The project was presented for graduate committee review and approved. Approval (Appendix C) and copies of original tools were used after permission was obtained by an AICA-S lead author (Müller, K, personal communication, December 28, 2016). The webinar was offered through the Alaska Nurses Association (AaNA) website. The entirety of the intervention took on average one hour to complete.

The project utilized a convenience sample of providers currently licensed to practice in the State of Alaska and located in the greater Anchorage area. A minimum of ten was sought for participation on the basis they needed to be able to both treat and prescribe. Participants were recruited via snowball sampling and contacted by word of mouth and email. Emails were sent to psychiatric providers in the community. Emails included an electronic flyer (Appendix D) with a link to the webinar offered through the AaNA website. The webinar structural development was based on Knowles Adult Learner Theory (KALT) model. The model posits that for the adult learner, it is important for information to be delivered in a succinct, relevant, engaging, and anecdotal manner (Knowles, Holton & Swanson, 2005).

Ethical Considerations

The benefit of receiving the educational offering was greater knowledge regarding IA. The only potential harm or risk identified was the possibility of providing practitioners

misinformation. Charles Herndon, MD, Medical Director and addictions specialist with Providence Breakthrough, established content-validity (Appendix E). Informed consent (Appendix F) was understood as agreement to participate in the educational offering and by electronically signing the consent agreement form. Individual responses were and will not be published, as the material was for educational purposes only. All data was stored digitally without personal identifiable information and secured with a password. Project approval was sought from the University of Alaska Anchorage Institutional Review Board for the protection of human subjects and deemed exempt from full Board Review (Appendix G).

Measures. As part of the webinar educational offering, a pre-test questionnaire (Appendix H) was administered. The pre-test had seven questions and aimed to better understand participant's current IA knowledge, assessment practices, and demographic information. There were six Likert scale questions and one multiple-choice question. Following completion of the education offering, a post-test (Appendix I) was administered to gather response data. Post-survey questions ascertained clinical utility and the multiple-choice question was repeated. An open-ended comment section was also included to gather provider feedback.

In line with the KALT model, content was designed to be as free of medical jargon as possible and careful consideration was given to avoid placing too much information on each slide. The use of the case study provided the anecdotal connection, and statistics were presented to achieve practical relevance. The AICA-S was chosen for use in the case study because it aligns with *DSM-IV* substance abuse criteria and gambling addiction, a behavioral addiction based upon Griffiths' Components and *DSM-IV* addiction criteria. The scale possesses well-established validity indicators, as evidenced by 80.5% sensitivity, 82.4% specificity, and .88 Cronbach alpha rates (Müller et al., 2014). The scale also importantly determines which

internet application(s) are of most interest to the user.

Data Analysis

There were 10 participants who completed the webinar. The majority of participants were female ($n = 6$), nurse practitioners ($n = 8$), and fell into the 55-64 years of age range ($n = 5$). The average number of years in nursing was 19.60 ($SD = 13.57$). Because of the need to preserve individual confidentiality, the MD response comparisons will not be listed; only NP and ‘other’ data is discussed. Detailed demographic information can be found in Tables 1 and 2.

Table 1
Age of Participants

<u>Age</u>	<u>Frequency</u>	<u>Percent</u>
25-34	1	10.0
45-54	3	30.0
55-64	5	50.0
65-74		
75 and older	1	10.0
Total	10	100.0

Table 2
Provider Education Level

<u>Education</u>	<u>Frequency</u>	<u>Percent</u>
PMH-NP	5	50.0
FNP	3	30.0
MD	1	10.0
Other	1	10.0
Total	10	100.0

The pre- and post-survey questions exploring IA screening practices and knowledge levels were compared using the non-parametric Wilcoxon Signed Rank test with

alpha set at .05%. This test was chosen because of small sample size, ranked data, and failure of the data to meet parametric assumptions of normality. The first question addressed the likelihood of the practitioner to screen for IA. Participants were asked to choose from ‘never,’ ‘sometimes,’ and ‘always.’ There was a significant increase in intent to screen for IA ($z = -2.121, p = .034$) but not for individual educational backgrounds. The medians did not change because of the education for NP’s; both PMH-NP’s and FNP’s had a median of 2 before and after the intervention (Table 3).

Table 3
Comparison of Pre- and Post-Webinar Medians for IA Screening Practices

<u>Education</u>	<u><i>n</i></u>	<u>Pre-Test</u> <u><i>Mdn</i></u>	<u>Post-Test</u> <u><i>Mdn</i></u>
PMH-NP	5	2	2
FNP	3	2	2
Other	1	1	2
Total	9		

Note: *Mdn*= Median. *n* = number of participants

The second pre-test question asked the participant how they would currently rate their IA knowledge. Response options included: ‘not at all,’ ‘some,’ ‘average,’ ‘above average,’ and ‘expert.’ The Wilcoxon Signed Rank test was used for the knowledge question because of the limitations mentioned above. The pre- and post-survey knowledge level comparisons were deemed significant ($z = -2.762, p = .006$). As for specific groups, PMH-NP’s exhibited greater knowledge ($Mdn = 4$) after the webinar than before ($Mdn = 2$). There was increased knowledge levels demonstrated by the FNP’s upon webinar completion ($Mdn = 4$) than before ($Mdn = 3$). The only person to deny a knowledge change after the intervention was a PMH-NP who reported being an ‘expert’ both before and after the webinar. For further information regarding knowledge

comparisons, please see Table 4.

Table 4
Comparison of Pre- and Post-Webinar Medians for IA Knowledge

<u>Education</u>	<u>n</u>	<u>Pre-Test</u> <u>Mdn</u>	<u>Post-Test</u> <u>Mdn</u>
PMH-NP	5	2	4
FNP	3	3	4
Other	1	1	3
Total	9		

Note: *Mdn*= Median. *n* = number of participants

The final question asked “to decrease time spent online and decrease depression related to excessive online activity, the best psychotherapeutic response is?” The possible answers included CBT, dialectical, electroconvulsive, or group therapy. The pre- and post-multiple-choice comparison was deemed not statistically significant ($z = -1.00, p = .317$). Since nine out of ten participants chose the correct answer (CBT) during the pre-test and 100% during the post-test, it is questionable whether the test item should have been included. The multiple-choice question was problematic because most providers, regardless of specialty, have likely heard of CBT. The highly personal nature of internet addiction would probably dissuade against choosing group therapy as a frontline treatment and electroconvulsive therapy is only indicated in extreme cases of treatment resistance. Finally, dialectical therapy is usually recommended for borderline personalities, not necessarily internet addiction cases.

Though the data supports the premise that education does increase knowledge and willingness to screen, the results should be understood as preliminary. A much more robust sample size is needed before any judgments are to be made whether IA education affects intent to screen and/or knowledge level among providers.

Discussion

Strengths

The strengths of this educational project included improved clinical utility, relevance to the field of Psychiatry and overall wellness, dissemination of the AICA-S tool and improved awareness of IA as a condition warranting clinical attention. Nearly all of the respondents noted they would be screening for IA in the future. Thus, the delivery and intention of the webinar was well received.

Limitations

While there were many strengths, there were some notable weaknesses identified. Limitations included flaws with the pre-test survey design, delays in webinar offering, and minimal participation rates. The pre-test question asking for information regarding type of practice included four options: PMH-NP, FNP, MD, or “other”. The goal was to have ten participants able to both treat and prescribe. Unfortunately, because some who participated were either PA’s (Physicians Assistants) or non-traditional MD’s (Doctorate of Medicine), e.g. DO’s (Doctorates of Osteopathic Medicine), it is uncertain what type of provider the “other” is. It would have been better suited to the purposes of collecting demographic information to have specifically delineated type of practice by having the provider type in the specific information. Further, the inclusion of social workers and therapists might have been beneficial as they are in unique positions to assist with treatment in the form of therapy. Considering there is not a standard treatment for IA, perhaps more focus on identification rather than treatment privileges in the recruitment process could have made data collection shorter and more practical. There were delays in the webinar offering because of technical difficulties with the software platform, as well as formatting compatibility issues. Some respondents had difficulty accessing the

webinar because a period was missing in the email link while others were booted mid-webinar for unknown reasons.

The fact the webinar was offered during the summer months was another significant barrier to obtaining adequate response rates. Minimum participation was slow to achieve, taking nearly three weeks to obtain the necessary ten respondents. Many factors could account for the slow response rates, most notable of which is many are enjoying the limited long days of summer out of the office or home. While many persons verbally stated they would participate, based on the final number, they did not do so. In addition to email and word of mouth, printed flyers could have been used to reach out to more people. Paper invitations were not pursued because of the high likelihood of people being busy during summer time.

Recommendations

Most studies addressing prevalence, etiology, and treatment efficacies have utilized treatment seeking individuals and male populations with few exceptions (Kuss & Lopez-Fernandez, 2016; Müller et al., 2014; Wölfling et al., 2015). Recommendations include: standardization of IA criteria, acknowledgement by the APA, large-scale and randomized treatment studies combining prescriptive and psychological treatments for both men and women, and incorporating discussion of IA into health care educational programs to increase IA awareness. There are established guidelines posted by the American Academy of Pediatrics regarding screen time for children, and such regulations should be made more visible to the public and in health care arenas. Regardless of the specialty, it is important providers understand the neurobiological and behavioral similarities between IA and substance-based addictions. Greater knowledge of behavioral addictions legitimized by the APA is needed as Gambling Disorder has been added to the *DSM-5* with the possibility of Internet Gaming Disorder in the

future. Understanding the implications of problematic internet use in regard to behavioral health, relationships, and functioning is necessary if whole patient, person-centered care is to be provided. It is unknown how often practitioners assess for problems with IA. This project aimed to increase frequency of screening and promote IA discussion among health care providers. At the end of the webinar, it was reiterated that no consensus on how to measure IA exists. Thus, the use of the AICA-S or any other validated assessment tool is recommended with the understanding that use and interpretation is discretionary.

Dissemination

Upon completion of the webinar, Dr. Herndon requested the PI present an in-person presentation to staff members at Providence Breakthrough (an addiction recovery/ outpatient clinic) (Appendix J). Prior to the offering, an IRB modification request was submitted to IRB and approved (Appendix K). The eight attendees, except for Dr. Herndon, were licensed, masters-prepared therapists, social workers, or counselors. The information was well received, and a lively discussion of implications followed the presentation. Future opportunities to present in-person or via poster at the Alaska Psychological Association's annual conference in Girdwood, Alaska and/or the annual Alaska Association of Nurse Practitioners gathering in the fall of 2017 are being explored.

Conclusion

Psychiatric NP's have the training and duty to screen for problems of abuse and dependence and should, in light of supporting research, be screening for behavioral addictions in addition to substance-based addictions. As recommended by the National Institute of Medicine (IOM) in their report, *The Future of Nursing: Leading Change, Advancing Health*, "nurses should practice to the full extent of their education and training" and "be full partners, with

physicians and other health care professionals, in redesigning health care in the United States” (2010, p.2). This project served to fulfill both of the IOM goals of advancing the process of quality improvement through integrative literature review and fostering collegial interaction with allied health professionals toward the goal of improving behavioral health and wellness. Griffiths’ (2005) model served well to guide the project from start to finish and provides an excellent theoretical foundation for the field of behavioral addictions. This project might be continued at the local and state level. Advocating for IA education aimed at teachers, school nurses, and school administrators is warranted to bolster recognition of at-risk youth. In conclusion, IA is a significant behavioral health problem that warrants clinical attention.

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Appendix A

AICA-S Tool

AICA-S

(Wölfling, K., Müller, K.W. & Beutel, M.E., 2010)

In the following you will find a number of questions about how you generally deal with the internet. Please answer the questions as honestly and completely as possible. Please remember that there are no “right” or “wrong” answers. So, do not think too long when answering the individual questions, simply place a cross in the box for the answer which you spontaneously regard as being most appropriate.

Before you answer the following questions please pay attention to **3 aspects**:

- 1) All questions concerning your online behaviour only refer to the active use of the internet during **leisure time**- not for the reason of job-related use of the internet.
- 2) Questions concerning time of use refer to the **active use** of the internet, i.e. only the time in which you actively deal with content of the internet and do not deal with other things (e.g. reading a book while the internet radio is playing).
- 3) Please consider the use of mobile internet capable gadgets (e.g. smartphones) concerning questions to the time of use.

1 A) How old are you? years

1 B) Are you: qmale

qfemale

1 C) Since how many years are you using the internet? Since ca. years.

1 D) How does your current professional situation look like?

q
(1) full time job

q (2) half time job

q (3) self-employed

q (4) no employment at the moment

q (5) in vocational training as:

q (6) study; field of study:

q (7) others, namely:

1 E) Which gadgets are you using for private purpose to get access to the internet?

Never **seldom** **often** **very**

(0) (1) (2) **often**

(3)

q q q q own PC or Laptop

q q q q internet capable mobile phone (e.g.

smartphone)

q	q	q	q	internet capable glasses (e.g. Google Glasses)
q	q	q	q	others, namely: _____

1 F) Have you ever bought virtual objects for real money (e.g. purchase of game-items within the scope of browser games)?

q	q
(0)	(1)
(0)	

no	yes
-----------	------------

1 G) Do you use the internet for private purpose during working time (except for lunch break)?

q	q	q	q	q
(0)	(1)	(2)	(3)	(4)
Never	seldom	sometimes	often	very often

1 H) How often do you use the following online offerings for private purpose?

Never seldom often very

(0) (1) (2) **often**

(3)

q	q	q	q	(1) Online games (e.g. MMORPGs, MOBAs etc.)	q
---	---	---	---	---	---

q q q q (2) Shopping (e.g. ebay, amazon)

q

q

q

q

q

(3) Chatting / exchange in forums

q

q q q q (4) Writing emails

q

q	q	q	q	(5) Online sex offers (e.g. pornographic pictures)	q
---	---	---	---	--	---

q

q

q

q

(6) Online gambling (e.g. poker, casinos, betting)

q

q

q

q

q

(7) Online communities (e.g. Facebook, SchülerVZ)

q

q q q q (8) Information research (e.g. Wikipedia)

q

q

q

q

q

(9) Video- or streaming portals (e.g. youtube)

q

q

q

q

q

(10) other internet games (e.g. Browsergames, Fun Games)

q

q	q	q	q	(11) others, namely:	q

1 I) Please briefly think about online contents you are most engaged into or you are using intensely and mark your answer in the very right column:

*(if possible try to name **only one** internet offer, please)*

Please note: On the following pages you will find detailed questions to your internet usage patterns. Questions are asked generally, i.e. “online behaviour” is mentioned. We ask you to refer the questions (1 to 15) to the internet offer you use **most intensively**.

(1) How many hours do you spend actively online on average **per weekday** (Monday to Friday)?

About.....hours

(2) How many hours do you spend actively online on average **per day** at the weekend / on holiday /

on public holidays?

About..... hours

(3) How often are you actively online?

- every day (1) q
- 2-3-times per week (2) q
- once per week (3) q
- once per month (4) q
- less than once per (5) q
month

(4) How long are you actively online usually (during **one** internet session)?

- less than 1 hour (1) q
- 1-2 hours (2) q
- 2-4 hours (3) q
- 4-6 hours (4) q
- more than 6 hours (5) q

(5) How strongly are your **thoughts** involved with online offers / activities during the day?

- q
 - q
 - q
 - q
 - q
- (0) (1) (2) (3) (4)
- | | | | | |
|-------------------|-----------------|--------------------|-----------------|---------------|
| not at all | somewhat | perceptibly | strongly | very |
| | | | | strong |

(6) How often do you online, although you resolved not to do so or did you go online more often or, respectively, longer than you had intended?

q q q q q
(0) (1) (2) (3) (4)

never seldom sometimes often very often

(7) Do you feel unwell when you cannot be online?

q q q q q
(0) (1) (2) (3) (4)

never seldom sometimes often very often

(8) Have you noticed that you have to be online **more often** or **longer** to enable you to feel good again or to feel relaxed?

q q q q q
(0) (1) (2) (3) (4)

never seldom sometimes often very often

(9) How strong is your average craving for online activities?

q q q q q
(0) (1) (2) (3) (4)

never seldom sometimes often very often

(10) How often does your craving for online activities appear so overpowering that you cannot

resist it?

q q q q q
(0) (1) (2) (3) (4)

never seldom sometimes often very often

(11) How often do you avoid negative feelings (e.g., annoyance, boredom, frustration, sadness) by spending time on the internet?

q q q q q
(0) (1) (2) (3) (4)

never seldom sometimes often very often

(12) How often have you tried to give up or, respectively, to limit your online behaviour?

q q q q q
(0) (1) (2) (3) (4)

never seldom sometimes often very often

(12.1) ... if you have previously tried to change your online behaviour: were you successful?

q q
(0) (1)

no yes

(13) How often have you forgotten something important (e.g. at work, school or training) because you have spent the whole time being on the internet?

q	q	q	q	q
(0)	(1)	(2)	(3)	(4)

never	seldom	sometimes	often	very often
--------------	---------------	------------------	--------------	-------------------

(14) How often have you had the feeling that you were online too much or too long?

q	q	q	q	q
(0)	(1)	(2)	(3)	(4)

never	seldom	sometimes	often	very often
--------------	---------------	------------------	--------------	-------------------

(15) Have any negative consequences or problems arisen in the following sectors as a result of your online behavior?

yes no

(0) (1)

q	q	Problems at work, in training or at school (e.g. poorer assessments)
---	---	--

q	q	Problems with the family / partner or, respectively, with friends (e.g., quarrels)
---	---	--

q	q	Financial problems (e.g., debts)
---	---	----------------------------------

q	q	Neglecting other leisure activities or interests
---	---	--

q	q	Neglecting friends / partner
---	---	------------------------------

q	q	Problems with health (e.g., too little sleep, nutrition)
---	---	--

(16) Would you say that you are using some online offers excessively?

If yes, what kind of online offers are those? (*Multiple responses are possible*)

q	(1)	Online games (e.g. role playing games, first person shooter, etc.)
---	-----	--

q (2) Shopping (e.g. ebay, amazon)

q (3) Chatting / exchange in forums

q (4) Writing emails

q (5) Online sex offers (e.g. pornographic pictures)

q (6) Online gambling (e.g. poker, casinos, betting)

q (7) Online communities (e.g. Facebook, SchülerVZ)

q (8) Information research (e.g. Wikipedia)

q (9) Video- or streaming portals (e.g. youtube)

q (10) other internet games (e.g. Browsergames, Fun Games)

q (11) others, namely:

Appendix B

AICA-S Scoring Key

Scale for the Assessment of Internet and Computer game Addiction (AICA-S): Scoring

Item	answer	score
1 How many hours do you spend actively online on average per weekday (Monday to Friday)?	given „4“ or more hours	1 point
2 How many hours do you spend actively online on average per day at the weekend / on holiday / on public holidays?	n.a.	n.a.
3. How often are you actively online?	1	2 points
4. How long are you actively online usually (during one internet session)?	5	2 points
	4	1 points
5. How strongly are your thoughts involved with online offers / activities during the day?	4	2 points
	3	1 points
6. How often do you online, although you resolved not to do so or did you go online more often or, respectively, longer than ... ?	4	2 points
	3	1 points
7. Do you feel unwell when you cannot be online?	4	2 points
	3	1 points
	2	1 points
8. Have you noticed that you have to be online more often or longer to enable you to feel good again or to feel relaxed?	4	2 points
	3	1 points
9. How strong is your average craving for online activities?	4	2 points
	3	1 points
10. How often does your craving for online activities appear so overpowering that you cannot resist it?	4	1 points
11. How often do you avoid negative feelings (e.g., annoyance, boredom, frustration, sadness) by spending time on the internet?	4	2 points
	3	1 points
12. How often have you tried to give up or, respectively, to limit your online behaviour?	4 or 3	2 points
Item 12 has to be in taken in combination with Item 12.1	AND	
12.1 If you have previously tried to change your online behaviour: were you successful?	„no“	
13. How often have you forgotten something important (e.g. at work, school or training) because you have spent the whole ... ?	4	2 points
	3	1 points
14. How often have you had the feeling that you were online too much or too long?	4	2 points
	3	1 points
15. Have any negative consequences or problems arisen in the following sectors as a result of your online behavior?	Every „yes“ answer	0.5 points each (max. 3 points)

Cutoffs

highest score possible	27 points
non-problematic	0.0 – 6.5 points
moderate addicted internet behaviour („risky“ in adolescents)	7.0 - 13.0 points
Addicted internet behaviour	13.5 – 27.0 points

Appendix C

Permission to Use AICA-S Tool

Dear Nicole,

Happy New Year!

Sorry for being late in responding to your mail - I managed not to check my emails during the holidays.

In the attachment you will find the English version of AICA-S, including the scoring sheet. We are currently working on a re-evaluation of the initial cutoffs proposed and the scoring procedure - I will keep you informed if anything will change here.

If you have any questions, please don't hesitate contacting me!

Best,

Kai

=====
=====

Dr. Kai W. Müller | Diplompsychologe

Wissenschaftlicher Mitarbeiter - Forschung & Diagnostik

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Von: Nicole See <nmsee@alaska.edu>

Gesendet: Mittwoch, 28. Dezember 2016 22:10:46

An: Mueller, Kai

Betreff: Re: AW: AICA-S scale-permission to use

Thank you for responding. I eagerly look forward to your new therapy model, how exciting. Yes, would you please send me the scale and scoring criteria in an English word document?

Happy Holidays

Nicole

Sent from my iPhone

On Dec 20, 2016, at 2:45 AM, Muellert, Kai <muellka@uni-mainz.de> wrote

Dear Nicole See,

thanks for your kind message! Nice to hear that you intend to make use of AICA-S - please feel free to use it. Do you already have the English version of it? or should I send it to you?

Kind regards - and please excuse the late response; we are currently finishing the first clinical trial on the effects of a manualized therapy for internet addiction and there is a lot to do (if you are interested in the project please visit www.stica.de),

Kai

=====

=====

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Von: Nicole See <nmsee@alaska.edu>

Gesendet: Donnerstag, 8. Dezember 2016 09:40:42

An: Mueller, Kai

Betreff: AICA-S scale-permission to use

Greetings,

My name is Nicole and I'm a Nurse Practitioner student at the University of Alaska, Anchorage. For my final research project, I plan to provide internet addiction education in the Anchorage area this following spring. My goal is providers who receive the education will assess for compulsive internet use in practice. The project will utilize Griffiths component model of addiction as it's theoretical framework, and from there I'll incorporate several tools for the providers review in conjunction with existing research on the matter. The AICA-S tool is one of those instruments I hope to disseminate in the project. Would you and your colleagues be willing to allow the use of your tool for this scholarly project? Regardless of your decision, I thank you for the scale and the other contributions you've made to the field.

Kind regards,

Nicole M. See RN

Appendix D

Webinar

Internet addiction: Implications and assessment education for Providers

Presented by: Nicole Marie See BS, RN, PMH-NP-s

You are invited to participate in a webinar hosted by the Alaska Nurses Association (AaNA)! The purpose of this webinar is to spread awareness of Internet addiction to the medical community, particularly those in the mental health arena so that increased screening, recognition, and treatment occurs.

This voluntary webinar will last approximately 45 minutes and will include pre- and post-evaluation surveys. On completion, **1.25 continuing education credits will be awarded!**

No conflict of interest exists; this project is a scholarly project to satisfy graduate school requirements with the University of Alaska Graduate Program.

All personal identifiable data will be safely secured on the AaNA website.

Two options to ACCESS the webinar:

Go to <https://alaskanursesitmos.com/online-courses/>

1. Select the course and add to cart
2. Register with your email and please use both your first and last name
3. You will then receive an email with instructions to finalize your account
4. Logon and do your webinar!

OR

Email ce@aknurses.org and request access to the webinar – you will then be registered (provide your first and last name) and you will receive an email with your log in information and password to finalize your account

*****IF you have previously done webinars through AaNA you will already have an***

account; just log in to alaskanursesitmos.com

Flyer

Appendix E

Content Validity Determination

From: Herndon, Mike

Sent: Sunday, June 04, 2017 12:32 PM

To: See, Nicole M

Subject: RE: Presentation

Nicole,

I loved your presentation and learned a great deal about IA by reviewing it in depth. Your use of data was exemplary and very well documented your premise that this behavioral addiction mirrors substance abuse. Having the case presentation was excellent as it gave a human face to the problem.

Unfortunately, when I originally agreed to meet with you tomorrow morning, I had forgotten that my oldest granddaughter was arriving from Seattle tonight to spend a week with us and I did not take off from work for the visit. I am therefore planning to take off tomorrow to spend time with her. As an alternative, if you still want to meet with me to discuss the presentation, I could meet with you on Friday, 6/9/17 in the morning since my wife and granddaughter will be visiting Denali National Park on Thursday and Friday this week.

I apologize for the short notice of the change in my schedule. I will try to call you.

Mike Herndon

cell: 229-4886

From: See, Nicole M

Sent: Thursday, June 01, 2017 3:21 PM

To: Herndon, Mike

Subject: Presentation

Here's the presentation,

Please focus on whether or not the lit review framework and data supports the premise that this behavioral addiction mirrors substance abuse. Thank you and have a great weekend!

From: Herndon, Mike

Sent: Wednesday, May 31, 2017 2:19 PM

To: See, Nicole M

Subject: RE: UAA SON Research Project

Yes, please email the presentation to me for my review and I can look at it and get back to you for my input. Then if we need to meet, we could get together in my office on Monday, 6/5/17 at 11:00 AM if that works for you. Providence Breakthrough is located in the Providence Regional Building across the street from the UAA biomedical building at 3760 Piper Street in Suite 1108. If you come in the front entrance to the PRB, we are at the end of the right-hand hallway. When you walk to the end of the hallway, go left to the Breakthrough Office.

From: See, Nicole M

Sent: Sunday, May 14, 2017 8:56 AM

To: Herndon, Mike

Subject: UAA SON Research Project

Hello Dr. Herndon,

My name is Nicole and I am an PMH-NP student with UAA. My professor Dr. Kathryn Sexson recommended you to possibly assist with content validity requirements for my project "Internet Addiction and Implications for Practice: Treatment Education for Providers". It's a 20 minute presentation that is voiced over and offers a PowerPoint and assessment tool overview. Would you be willing to review and critique the material? If unable to do so, do you have any other suggestions of who might be a good fit? I appreciate your time, and thank you for caring for Alaskans.

Nicole See

907-350-6609

Appendix F

Informed Consent

Internet Addiction: Implications and Assessment Education for Providers

CONSENT FORM

Primary Investigator:

Nicole See RN, BSN, PMH-NP-s

University of Alaska, Anchorage

(907) 350-6609

Description:

Internet Addiction (IA) is emerging as a growing public health concern. Fiscal, occupational, emotional, and relationship difficulties may arise from problematic Internet use or screen addiction. There is insufficient data as to how often providers assess for IA thus, I am interested in whether or not IA education will influence provider willingness to screen for the problem in practice. This quality improvement research project also hopes to increase awareness about IA and expanding *DSM* criteria to involve behavioral addictions. There will be a pre-test to determine current IA assessment practices, perceptions, and non-identifiable demographic information will be collected. The bulk of the presentation will entail a PowerPoint discussion on IA to include: background, prevalence, co-morbidities, implications, overview of the Assessment for Internet and Computer Game Addiction Scale or AICA-S, and one case study. There will also be a post-test. The post-intervention questionnaire will focus on intent to use the material and provide opportunity for feedback. The entire program will last no more than one hour.

Nature of Participation:

The participation in this educational intervention and research project is solely at your discretion and voluntary. If for any reason you wish not to pursue this endeavor, simply withdraw. It would be helpful however if you could list reasons for doing so in the comments section on the post survey for quality improvement purposes.

Confidentiality: No personal identifiable information will be collected for the research project purposes. Understanding the principle investigator (PI) may personally know you being such a small provider community, be assured any information will be secured on a the PI's password-encrypted computer and kept for no more than three years. No exchange of potentially personal identifiable information will occur other than the collection of signed consent forms. The pre and post survey responses will not ask for your name and will use a numeral identifier for purposes of keeping track of pre and post test responses. All consent forms and surveys will be scanned and uploaded to a secure digital medium and then the paper copies destroyed. Use of your personal demographic information will only be used for the purposes of understanding who is more likely to assess for Internet related problems.

Benefits: There are a few benefits to completing this education. The greatest benefit is increased knowledge and understanding of media related behavioral addictions. Second, continuing education will aid professional development.

Risks: The only risk identified is providing misinformation. As such, Dr. Charles Herndon, addictions specialist with Providence Breakthrough in Anchorage, Alaska has evaluated the

material and provided content validity.

Contact Persons: If you have any concerns or questions regarding quality or content material please feel free to contact the Committee Chair Person Dr. Angelia Trujillo at (907) 786- 4693 or Sharilyn Mumaw, Research Compliance Officer, with the UAA Institutional Review Board at (907) 786-1099.

Please sign below if you wish to participate in this educational activity with the **understanding your survey responses will be used for an educational research project and participation is entirely voluntary.**

Name:

Date:

Appendix G

IRB Exempt Status Approval



3211 Providence Drive
Anchorage, Alaska 99508-4614
T 907.786.1099, F 907.786.1791
www.uaa.alaska.edu/research/ric

DATE: June 13, 2017

TO: Nicole See, RN, BSN
FROM: University of Alaska Anchorage IRB

PROJECT TITLE: [1084758-1] Internet Addiction: Implications and assessment education for providers
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: June 13, 2017
EXPIRATION DATE:

Your Institutional Review Board (IRB) proposal meets the U.S. Department of Health and Human Services requirements for the protection of human research subjects (45 CFR 46 as amended/revised) as being exempt from full Board review.

Therefore, you have permission to begin data collection for your study. Please submit a Final Report at the end of your project.

Please report promptly proposed changes in the research protocol for IRB review and approval.

On behalf of the Board, I wish to extend my best wishes for success in accomplishing the objectives of your study.

A handwritten signature in black ink, appearing to read 'Sharilyn Mumaw'.

Sharilyn Mumaw, M.P.A.

Research Integrity & Compliance Officer

Appendix H

Pre-Test Questionnaire

1. I currently screen for problems with Internet Addiction:

- never
- sometimes
- always

2. What is your gender?

- Female
- Male

3. What is your age?

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 to 74
- 75 or older

4. How many years have you been practicing?

5. What is your educational background?

- Psychiatric Nurse Practitioner
- MD
- Family Nurse Practitioner
- Other

Appendix I

Post-Test Questionnaire

1. How would you rate the quality of webinar?

- Very high quality
- High quality
- Neither high nor low quality
- Low quality
- Very low quality

2. In your own words, what are the things that you like most about this new webinar?

3. What changes would this product have to make for you to give it an even higher rating?

4. As a result of today's webinar there was a change in my practice

- unsure
- no
- yes

5. As a result of today's webinar there was a change in my knowledge

- no
- somewhat
- moderately so
- definitely

Appendix J

Request to Present Live at Providence Breakthrough

Monday, July 10, 2017 4:20 PM

Hi Nikki,

I just wanted to confirm that you will do your presentation on Internet Addiction at Providence Breakthrough on Monday, 7/17/17 at 3:15 PM to 4:15 PM. I struck out getting continuing education credits but we want the presentation regardless. Please reply to this email or call me at 212-6980 to confirm. Thanks much!

Charles Michael Herndon, M.D.

Medical Director

Providence Breakthrough

Ph (907) 212-6970

Fax (907) 212-697

Charles.Herndon@providence.org

Appendix K

IRB Modification Request Authorization



3211 Providence Drive
Anchorage, Alaska 99508-4614
T 907.786.1099, F 907.786.1791
www.uaa.alaska.edu/research/ric

DATE: July 1, 2017

TO: Nicole See, RN, BSN
FROM: University of Alaska Anchorage IRB

PROJECT TITLE: [1084758-2] Internet Addiction: Implications and assessment education for providers

SUBMISSION TYPE: Amendment/Modification

ACTION: ADMINISTRATIVE APPROVAL

DECISION DATE: July 1, 2017

EXPIRATION DATE: June 12, 2018

This letter is in response to your request for Institutional Review Board (IRB) approval of minor modifications to your currently approved proposal. Your request is hereby granted.

On behalf of the entire Board, I wish you continued success with your study.

Robert J. Boeckmann, Ph.D

Chair, Institutional Review Board