# Relationship Among Counselors-in-Training's Smartphone Use, Anxiety, and Wellness

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**Abstract**

This quantitative study examined counselors-in-trainings' (CITs) anxiety, problematic smartphone use (PSU), and wellness. This study measured the relationship among CITs' smartphone use, anxiety, and wellness. Pearson's correlation coefficient of problematic smartphone use and anxiety was 0.348 and indicated a moderate significant positive correlation, anxiety and wellness was -.228 and indicated a small significant negative correlation, and problematic smartphone use and wellness was -.128 and indicated a small significant negative correlation. A total of 191(22%) out of 855 CITs met the clinical cut off score for problematic smartphone usage. Out of the 191 CITs, 165(86%) were female and 26(14%) were male. Results further showed that CITs with higher levels of smartphone usage should monitor their anxiety and wellness levels. CITs could benefit from monitoring their levels of PSU, wellness, and anxiety to best meet their personal and professional duties as they start and progress through their graduate program.

*Keywords*: smartphone use, anxiety, wellness, counselors-in-training, counselor education and supervision.

## Introduction

Smartphones have become an essential form of technology used by millions of individuals every day throughout the world. While the earliest intended use of cell phones was a way to communicate orally with others, these devices have now transformed into mini handheld computers (Tastan et al., 2021). Currently in the United States, almost 97% of Americans own some type of cell phone (Pew Research, 2021). Since 2011, rates of Americans owning a smartphone device have grown from 55% to 85% (Pew Research, 2021). Smartphones provide some positive benefits to society; however, several research studies have demonstrated a relationship among smartphone use and many physical, mental, and emotional problems. These include, but not are limited to, depression, stress, anxiety, attention-deficit/hyperactivity disorder (ADHD), limited physical activity, body mass index, eating behavior disorder, bedtime procrastination, interpersonal problems, and childhood trauma (Elhai et al., 2016; Elhai et al., 2018; Emirtekin et al., 2019; Geng et al., 2021; Han et al., 2017; Hong et al., 2021; Kartal & Ayhan, 2021; Xie et al., 2019). While all these associations with smartphone use are cause for concern, results from several studies reported associations among anxiety and the use of these devices (Annoni et al., 2021; Jin et al., 2021; Jo et al., 2021; Song et al., 2022). Furthermore, anxiety is one of most common mental health symptoms worldwide (World Health Organization, 2017) and is associated with smartphone use (Elhai et al., 2017).

There is much debate over which term should be utilized to describe the attraction of smartphones and phenomenon of increased use (Rozgonjuk & Elhai, 2019). For example, the term smartphone addiction has been commonly used (Kwon et al., 2013), while more recent literature strongly encourages the use of “problematic smartphone usage” (PSU) based on the lack of addictive qualities of this behavior (Panova & Carbonell, 2018). Smartphone addiction is also not

a current disorder according to the *Diagnostical Statistical Manual of Mental Health Disorders* 5th edition text revision ([DSM-5-TR]; American Psychiatric Association, 2022). However, PSU has been recently defined as a “compulsive use that leads to impaired daily functioning in terms of productivity, social relationships, physical health, or emotional well-being" (Horwood & Anglim, 2018, p. 349). Therefore, PSU helps to explain the problematic behaviors that accompany the overuse of smartphone devices.

While most Americans own a smartphone, research has demonstrated an increased attractiveness of smartphone usage by college students (Liu et al., 2020; Tastan et al., 2021; Xie et al., 2019). While it is clear more research on smartphone use is needed among the general college population, there are few studies that examine the relationship of smartphone use among college students enrolled in specific professional programs that require students to be in a healthy physical, mental, and emotional state. For example, one study identified a positive relationship among smartphone use and interaction anxiety with nursing students (Tastan et al., 2021), while another study found independent associations with emotional exhaustion, depersonalization, stress, sleep quality, and smartphone use among osteopathic medical students (Brubaker & Beverly, 2020). Additional studies found that students in general who are suffering from burnout tend to overuse their smartphones (Hao et al., 2021; Walburg et al., 2016), and this can negatively affect wellness. Hao et al. (2021) indicated that academic burnout develops from a continuous exposure to internal and external stress and then negatively impacts well-being. A decline in academic performance, sleep disorders, fatigue, depressive symptoms, and low self-esteem were all noted as also occurring. These studies help to identify the need for students enrolled in professional programs to monitor themselves for physical, mental, and emotional problems, and to ensure they are engaged in wellness practices (Brubaker & Beverly, 2020; Hao et al., 2021; Tastan et al., 2021;

Walburg et al., 2016). The ethical principles to monitor yourself for effectiveness and engage in wellness practices also translates to the counseling profession and counselors-in-training (CITs) as seen in the American Counseling Association ([ACA]; 2014) *Code of Ethics*.

The ACA (2014) *Code of Ethics* requires counseling professionals and CITs to continuously monitor themselves for effectiveness (Section C.2.d.). This includes noticing signs of impairment from physical, mental, or emotional problems, and not to provide services when impaired (Section C.2.g.). Lawson and Myers (2011) reported that when compared with the general public, counselors are more at risk of having mental or emotional disorders. Furthermore, wellness is "both the cornerstone and defining feature of the counseling profession" (Mumbauer-Pisano & Kim, 2021, p. 224), and is often associated with "personal awareness and personal development" (Roach & Young, 2007, p. 30). As such, CITs must ethically promote their wellness and self-care to best meet their professional duties, avoid burnout, (ACA, 2014, Section C Introduction; Gibson et al., 2021; Plath et al., 2020), and avoid harm towards clients (ACA, 2014, Section A.4.a.). Past research indicated this concern as counselor wellness impacts the quality of service provided to the clients to the degree that it can be substandard or even harmful (Lawson et al., 2007). The 2009 Standards from the Council for Accreditation for Counseling and Related Educational Programs (CACREP) provided a definition of wellness as "a culturally defined state of being in which mind, body, and spirit are integrated in a way that enables a person to live a fulfilled life" (CACREP, 2009, Glossary). Swarbrick (1997, 2006) utilized a similar definition by explaining wellness as a conscious awareness of how choices made will impact the potential for an individual to have a fulfilling lifestyle.

While the CACREP (2015) 2016 standards do not provide an updated definition for wellness, these standards do require CITs to learn "self-care strategies appropriate to the counselor

role" (Section 2, Standard F.1.l.). However, a lack of wellness by students is typically not addressed unless there are noticeable deficits in their professional competency and a remediation plan becomes established (Mumbauer-Pisano & Kim, 2021). Counseling programs and CITs would benefit immensely by identifying early warning signs of high levels of anxiety and PSU as well as low levels of wellness because anxiety symptoms are often an early major concern reported by novice counselors (Pirtle et al., 2019). Thus, research on PSU, anxiety, and wellness would benefit counseling programs and CITs due to the increase of smartphone usage among college students and to support CITs with further promoting their own self-care and wellness throughout graduate school and into their professional counseling career.

**Theoretical Framework**

The present research study aligns with person-centered theory (Rogers, 1961), the Wellness Model (Adams et al., 1997), and the Interaction of Person-Affect-Cognition-Execution (I-PACE) model (Brand et al., 2014; Brand et al., 2016). The concept of individual wellness is supported by the values of person-centered theory, which describes people as being fully integrated and functioning people (Rogers, 1961). Person-centered theory is supported in the counselor education and supervision literature as this theory has been utilized as part of a theoretical framework in existing studies on CITs wellness (Harris et al., 2013; Merryman et al., 2015). The Wellness Model proposed by Adams et al. (1997) identifies six areas of individual wellness and highlights the need for these six areas to be balanced. These six areas of wellness are physical, social, psychological, spiritual, emotional, and intellectual (Adams et al., 1997). The concept of wellness is supported by Rogers (1961) person-centered theory and Adams et al. Wellness model because for a person to be a fully functioning person, there needs to be balance within all wellness areas, as wellness is an individual's attempt to regenerate their equilibrium (Swarbrick, 2006).

The risk factor of elevated anxiety with PSU fits well within the theoretical framework of the I-PACE model (Brand et al., 2014; Brand et al., 2016). The I-PACE model was originally created and examined Internet addiction (Brand et al., 2014), but has expanded to conceptualize other behavioral addictions including PSU (Duke & Montag, 2017; Elhai et al., 2020; Rozgonjuk & Elhai 2019). Components of the I-PACE model include: P-component defining an individual's core characteristics, A-component defining their affect, C-component including their cognitions, and E-component defining their execution (Brand et al., 2019; Brand et al., 2016). The I-PACE model theorizes that as a person engages in a certain type of behavior, they may begin to experience gratification leading to problematic behavior, which is seen in the early stages of the model versus the later stages where specific addictive behaviors start to occur (Brand et al., 2019). The I-PACE model helps to explain the loss of control of a technology device as being driven by an individual's affective and cognitive response, which leads to gratification, the behavior becoming reinforced, and an individual core characteristic that normalizes and strengthens this process (Brand et al., 2019). This may cause a person to be stuck in this continuous cycle furthering their problematic behavior from an originating predisposing emotional variable that could include anxiety.

**Research Questions**

The literature review revealed sufficient support that there may be a relationship between PSU, anxiety, and wellness among CITs. It also recognized the importance for students who engaged in professional programs to evaluate themselves for wellness, and to ensure they are engaged in practices that further promote this. Based on the non-existence of published literature on PSU, anxiety, and wellness in the counselor education and supervision field, there was a strong need to conduct this study to support counseling programs, counselor educators and supervisors, and CITs with increased awareness of the potential impact of PSU, anxiety, and

wellness among CITs. By supporting CITs with increased awareness of PSU, anxiety, and wellness, CITs can further promote their own self-care, develop effective coping mechanisms, and increase their overall wellness. This will aid as a possible deterrent of career related emotional and psychological challenges counseling professionals may endure (Pirtle et al., 2019). Therefore, the purpose of this study was to measure the relationship of PSU, anxiety, and wellness among CITs and the following questions were examined:

(1) What is the prevalence of PSU among CITs?

(2) Is there a relationship between PSU and anxiety among CITs?

(3) Is there a relationship between PSU and wellness among CITs?

(4) Is there a relationship between anxiety and wellness among CITs?

## Method

### Participants

871 CITs initially participated in our study; however, only 855 accurately completed the entire survey (i.e., 100% completion). Thus, 16 cases were deleted, and the final sample consisted of 855 CITs that 100% completed the survey. There were 737 (86.2%) female and 118 (13.8%) male participants. The average age of participants was 37.5 (*SD* = 10.88). For ethnicity, participants self-identified as White/Caucasian (*N* = 647, 75.7%), Black or African American (*N* = 133, 15.6%), Hispanic or Latino (*N* = 52, 6%), Asian (*N* = 14, 1.6%), American Indian or Alaska Native (*N* = 6, 0.7%), and Native Hawaiian or Other Pacific Islander (*N* = 3, 0.4%). Participants identified as being enrolled in clinical mental health counseling (*N* = 563, 65.8%), school counseling (*N* = 152, 17.8%), Marriage and Family Therapy (*N* = 95, 11.1%), or addiction counseling (*N* = 45, 5.3%) master's programs. Participants indicated they had finished 0-18 credits

(*N* = 365, 42.7%), 19-36 credits (*N* = 259, 30.3%), or 37-57 credits (*N* = 231, 27%) of their program of study at the time of survey completion.

## Procedure

After receiving approval from Liberty University's Institutional Review Board's (IRB; IRB-FY21-22-422), the researchers contacted the appropriate administrative individuals of the four master level counseling programs and requested and received approval to disseminate the survey. Data was collected via an online Qualtrics survey from January 20th, 2022 to March 30th, 2022. The survey comprised the purpose of the study, informed consent, a demographic questionnaire, and three standardized instruments (Smartphone Addiction Scale- Short Version (SAS-SV), Perceived Wellness Survey (PWS), and Generalized Anxiety Disorder Screener (GAD-7)) to measure smartphone, wellness, and anxiety levels. Participant responses were kept in a password-protected computer and Qualtrics software database, that was only accessible to the researchers for this study. All research standards set forth by the ACA (2014) *Code of Ethics* were adhered to.

## Instruments

### *SAS-SV*

The SAS-SV was utilized to measure the level of problematic use of participant smartphones (Kwon et al., 2013). The SAS-SV consists of 10 items using a six-point Likert scale with answer options ranging from "1 = Never" to "6 = Very often." The SAS-SV uses cutoff scores of 31 and higher for males and 33 and higher for females to determine PSU (Kwon et al., 2013).

### *PWS*

The PWS was utilized to measure the level of perceived wellness of each participant (Adams et al., 1997). The PWS consists of 36 items with six subscales measuring different

dimensions: (a) physical, (b) social, (c) emotional, (d) intellectual, (e) psychological, and (f) spiritual wellness. Higher scores on the PWS indicate higher satisfaction with personal wellness. Lower scores on the PWS indicate lower satisfaction with personal wellness.

### *GAD-7*

The GAD-7 was utilized to measure the levels of anxiety of each participant (Spitzer, 2006). The GAD-7 was validated with the general population by Löwe (2008). Higher scores on the GAD-7 indicate higher GAD symptomatology.

## Data Analysis

The collected data were summarized using descriptive statistics, and the Pearson's correlation coefficient (Pearson, 1895) was calculated to identify the correlation between wellness, anxiety, and PSU. Clinical cut off scores based off the SAS-SV were assessed for male and female participants. All the data analysis was performed using SPSS version 28.0 (IBM Corp, 2021).

# Results

A total of 855 CITs were included in the data analysis. Descriptive statistics for age revealed a mean of 37.488 with a Std. Deviation of 10.883, minimum of 20.000, and maximum of 70.000. For wellness, the mean was 14.353 with a Std. Deviation of 2.851, minimum of 6.410, maximum of 26.700. For anxiety, the mean was 7.061 with a Std. Deviation of 5.481, a minimum of 0 and a maximum of 21.000. For PSU, the mean was 25.456 with a Std. Deviation of 9.434 and a minimum of 10.000 and a maximum of 60.000.

## PSU Prevalence Among CITs

A total of 191(22%) out of 855 CITs met the clinical cut off score for problematic smartphone usage. Out of the 191 CITs, 165(86%) were female and 26(14%) were male.

## Pearson r Correlations

The Pearson's correlation coefficient calculations of PSU and anxiety was .348 indicating a moderate significant positive correlation, anxiety and wellness was -.228 indicating a small significant negative correlation, and PSU and wellness was -.128 indicating a small significant negative correlation.

**Table 1.** Anxiety and PSU Pearson correlation coefficient

| **Anxiety and PSU** | | | |
|---|---|---|---|
| | | Anxiety | PSU |
| Anxiety | Pearson Correlation | 1 | .348** |
| | Sig. (2-tailed) | | <.001 |
| | N | 855 | 855 |
| PSU | Pearson Correlation | .348** | 1 |
| | Sig. (2-tailed) | <.001 | |
| | N | 855 | 855 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | |

**Table 2.** Wellness and Anxiety Pearson correlation coefficient

| **Wellness and Anxiety** | | | |
|---|---|---|---|
| | | Wellness | Anxiety |
| Wellness | Pearson Correlation | 1 | -.226** |
| | Sig. (2-tailed) | | <.001 |
| | N | 855 | 855 |
| Anxiety | Pearson Correlation | -.226** | 1 |
| | Sig. (2-tailed) | <.001 | |
| | N | 855 | 855 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | |

**Table 3.** Wellness and PSU Pearson correlation coefficient

| **Wellness and PSU** | | | |
|---|---|---|---|
| | | Wellness | PSU |
| Wellness | Pearson Correlation | 1 | -.128** |
| | Sig. (2-tailed) | | <.001 |
| | N | 855 | 855 |
| PSU | Pearson Correlation | -.128** | 1 |
| | Sig. (2-tailed) | <.001 | |
| | N | 855 | 855 |

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

## Discussion

The present study was conducted to measure the relationship of PSU, anxiety, and wellness among CITs in master level counseling programs. Based on previous literature, one study found a positive relationship between smartphone use and interaction anxiety in nursing students (Tastan et al., 2021), while another study discovered independent associations with emotional exhaustion, depersonalization, stress, sleep quality, and smartphone use among osteopathic medical students (Brubaker & Beverly, 2020). Both studies identify the need for those in professional master's programs to monitor for physical, mental, and emotional problems, and to actively engage in wellness as ethically mandated for counselors (ACA, 2014).

### Findings

The present study identified that PSU was associated with CITs anxiety and wellness levels. PSU was positively associated with anxiety, while wellness and PSU, and wellness and anxiety, were negatively associated among CITs.

First, based on the results of the study, PSU was positively associated with levels of anxiety among CITs. The more smartphone usage correlated to higher levels of anxiety. The present study showed a moderately significant positive correlation between PSU and anxiety among CITS. This association between PSU and anxiety has been identified in previous literature. For example, Elhai et al. (2017) identified that anxiety is one of two most common mental health symptoms related to smartphone use. Previous studies have also noted a similar effect on students. Tastan and colleagues (2021) discovered a positive relationship among smartphone use and interaction anxiety in nursing students. Brubaker and Beverly (2020) found independent associations with emotional

exhaustion, depersonalization, stress, sleep quality, and smartphone use among osteopathic medical students.

Second, PSU was negatively associated with wellness among CITs. The more smartphone usage, the lower the levels of wellness were reported. The present study showed a small significant correlation between PSU and wellness among CITs. This supports wellness as an essential component for counselors and was noted in a previous study by Lawson et al. (2007), which found that counselor wellness impacts the quality of service provided to the clients to the degree that it can be substandard or even harmful. Mumbauer-Pisano and Kim (2021) further explained that wellness is "both the cornerstone and defining feature of the counseling profession" (p. 224). Roach and Young (2007) further stated that wellness in CITs is associated with "personal awareness and personal development" (p. 30). Therefore, CITs are ethically responsible to promote their wellness and self-care to best meet their professional duties, avoid burnout, (ACA, 2014, Section C Introduction; Gibson et al., 2021; Plath et al., 2020), and avoid harm towards clients (ACA, 2014, Section A.4.a.).

Finally, anxiety was negatively associated with levels of wellness among CITs. The more anxiety, the less wellness reported by CITs. The present study showed a small significant correlation between anxiety and wellness among CITs. Previous studies have also revealed an association among wellness and anxiety (Kalkbrenner, 2020; Waechter, 2021). As Pirtle et al. (2019) reported, counseling programs and CITs would benefit immensely by being able to identify early warning signs of high levels of anxiety and PSU, and low levels of wellness because anxiety symptoms are often an early major concern reported by novice counselors at the start of their professional training.

**Limitations**

A few limitations of the present study should be considered. First, the survey included self-reporting instruments to measure PSU, wellness, and anxiety levels. Some limitations to the use of self-reporting instruments include that people are often biased when reporting on their own experiences. They may have been influenced by social desirability or the ability to not evaluate themselves honestly. In addition, they may have interpreted the question incorrectly. Secondly, results could not establish a causal relationship between the variables as this was a cross-sectional correlational study. While correlation can be demonstrated, causation cannot be demonstrated between the variables. Another potential limitation of the sample is that the high educational attainment of the sample may influence the findings. Education can positively affect the psychological health of individuals (Jones et al., 2006). Also, as a limitation, correlational analyses were not done separately from men and women. The limitation exists here as the SAS-SV considers that there are different cut-off scores based on gender. Separate correlational analyses based on gender may have been beneficial. Lastly, all participants were counselors-in-training from one online institution, and thus, the results may not represent both the entire counselor-in-training and total population.

**Future Research**

Future research could analyze the subscales of the PWS among CITs, PSU, and anxiety levels. Analyzing the subscales of the PWS would provide additional data on which specific wellness areas are affected more than others. Second, data could be examined based on gender, as there is a difference in cut-off scores on the SAS-SV among gender. Longitudinal studies could be conducted to examine PSU, wellness, and anxiety levels among CITs throughout a longer duration of time. This may assist in uncovering potential cause-and-effect relationships among the variables. Additional variables, such as depression, stress, and life satisfaction could be measured

alongside PSU, wellness, and anxiety. Lastly, a variety of different methodologies could be used, such as qualitative or mixed methods, to collect data.

## Conclusion

This is the first study in the counselor education and supervision field that measured the relationship of PSU, anxiety, and wellness among CITs. In high levels of smartphone usage among CITs, anxiety tends to increase, and wellness tends to decrease. Helping professions require attention to wellness for both self and clients that will be treated. If helping professionals do not engage in activities that promote their own wellness, they cannot effectively treat others. The concern here is the potential that low wellness can affect professionals as they practice. There also can be more done to examine and evaluate this aspect of wellness.

CITs that have a high amount of smartphone usage should monitor their levels of anxiety and wellness. The Wellness Model proposed by Adams et al. (1997) identified six areas of individual wellness and featured the importance for these six areas to be stable. When any of those areas are not balanced, there is an increased risk of negative health problems, and with CITs, this can adversely affect the degree of care provided to their clients. Therefore, a self-care plan and effective coping mechanisms are essential for CITs to assist with maintaining optimal wellness throughout their educational program and professional counseling career.

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