A Quantitative and Qualitative Study on PSU Severity, Therapist Opinions of PSU, and PSU Treatment in North Texas

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Abstract

Problematic Smartphone Use (PSU), or the excessive use of smartphones, has become a widespread issue among adolescents especially in the US. Although researchers have tested different therapy approaches to treat PSU, there is scant literature on therapist views of its treatment, a great hindrance in developing effective solutions to combat PSU. Therefore, this study examines the views of therapists treating Problematic Smartphone Use (PSU) in North Texas on strategies used in PSU therapy for adolescents ages 14-18. With quantitative surveying for highschoolers ages 14-18 (n=364) and semi-structured interviewing with therapists (n=3) representative of their larger North Texas populations, this study specifically aims to determine the severity of PSU among adolescent participants, compile therapist views on PSU and its treatment, and discover the specific approaches therapists implement in treatment of PSU. Upon calculating descriptive statistics and Confidence Intervals for the survey data, results pointed to a moderate level of PSU severity within the group of adolescents. Additionally, thematic analysis yielded five themes that detail therapist views on PSU and its treatment: Importance of Community, Peer Support, and Social Interaction; Importance of CBT, Family Therapy, and Parental support; Treatment is unique to each patient; PSU is Rooted in Other Issues; and Recommendations for Adolescents. Therapy approaches such as Cognitive Behavioral Therapy (CBT), Family Therapy, Person-Centered Therapy (PCT), Internal Family Systems (IFS), and Adverse Childhood Experiences (ACE) were implemented by therapists in their therapy sessions. Future research should focus on gathering opinions from a diverse set of therapists to uncover different perspectives on treatment, determine the reasons for quantitative inconsistencies with past literature, conduct test interventions utilizing the therapy strategies extracted from this study to discover their effectiveness, and continue to gather therapist opinions for the betterment of PSU treatment for adolescents in the future.

Introduction

According to the Pew Research Center, teenager access to a smartphone in the US has increased from 92% to 97% from 2014 to 2022; alongside this, the percentage that claim to be online almost constantly has increased drastically from 24% to 46% (Vogels et al., 2022). This constant use is instigated by withdrawal from dopamine, the neurotransmitter from the brain's reward system that brings pleasure to a person (Haynes, 2018). Smartphones effectively provide "a virtually unlimited supply of social stimuli", which triggers surges of dopamine and has led to the issue of excessive smartphone use (Haynes, 2018). Increased access to smartphones over the years has led to excessive smartphone use in a greater percentage of teens, driving this drastic increase in the constant use of smartphones among U.S. teenagers. This behavior is also called Problematic Smartphone Use (PSU) or the "excessive use of smartphones with…phenomena similar to [an] addiction" (Yang et al., 2021, p. 1). Although PSU is not officially recognized as a mental disorder in the eleventh revision of the International

Classification of Diseases (ICD-11) or the fifth revision of the Diagnostics and Statistical Manual of Mental Disorders (DSM-5) (Eichenberg et al., 2021, p. 2), its widespread presence, resemblance to behavioral addictions, and negative mental ramifications mark it as a relevant concern.

To combat PSU, researchers in literature test different therapy approaches and strategies in interventions, and although some approaches have been rendered more effective than others, an important aspect of developing an effective solution has been under-researched: clinical expertise. Dr. Camilla Lo and her colleagues discuss that qualitative studies presenting clinical expertise—or therapists' professional experience and opinions—are very limited in literature despite their importance in developing effective solutions (Lo et al., 2020, p. 2). Therefore, this study aims to determine PSU severity among its participants, gather therapists' opinions on PSU and its treatment, and discover the treatment approaches they implement in therapy sessions. Using a non-experimental, mixed-method, triangulated approach, this study will help inform literature about the situation of PSU in North Texas. Triangulation in this study refers to the use of a quantitative survey to measure the severity of PSU within the population, and a qualitative aspect encompassing semi-structured interviews to gather the aforementioned opinions and recommended treatment approaches from therapists treating PSU among adolescents in North Texas.

Literature Review

Mental Ramifications of PSU on Adolescents

As stated previously, PSU has extensive negative mental ramifications on adolescents. Researchers Güner and Demir (2021) define adolescents as the "group at the highest risk in terms of [PSU]" in terms of its symptoms (p. 223). Reporter Tanya Basu comments on this viewpoint, sharing that this high risk or vulnerability to PSU and the addictive nature of PSU stems simply from their age, a "crucially pliable point of their mental and physical growth" (Basu, 2018). By succumbing to excessive smartphone use, adolescents face significant mental ramifications similar to, as stated by Khoury et al. (2019), addictive disorders (pp. 5-8) or behavioral addictions. Griffiths (2005) presents a model describing these ramifications in 4 categories: "salience, mood modification…withdrawal…[and] conflict" (pp. 193-196). Salience refers to when an activity "dominates [a person's] thinking" (Griffiths, 2005, p. 193), and Sharma et al. (2023) show that this has been shown to compromise both sleep time and quality (p. 29). By continually stimulating one's brain with dopamine, companionship becomes secondary, causing interpersonal conflicts to arise (Griffiths, 2005, p. 195). Mood modification refers to pleasure felt after engaging with the smartphone, yet excessively engaging with the smartphone makes adolescents dependent on dopamine for comfort, so when smartphone use is discontinued, adolescents crave the same satisfaction and experience unpleasantness—this process is known as withdrawal (Griffiths, 2005, p. 194). Sharma et al. (2023) describe that this unpleasantness is characterized by "irritability, anxiety and depression" (p. 29), and Dam et al. (2023) add that this activity is strongly associated with a degradation in well-being, quality of life, and an increase in the risk of self-harm/suicide (p. 11). The multitude of negative effects on individuals, therefore, has spurred researchers across the globe to test different approaches on PSU patients.

Significant Therapy Approaches used in PSU treatment

Multiple solutions have been tested for their effectiveness in addressing PSU, one such being Cognitive-Behavioral Therapy (CBT). Chang et al. (2022) note that CBT has become a

'rising star' in treating similar excessive internet disorders (p. 2), and Southam-Gerow & Kendall (2000) specify that it addresses past psychological problems and helps to refine "expectations about future behavior" (p. 344). Another common approach is Motivational Interviewing (MI), which is used to address internet disorders—Hosseini et al. (2020) explain that it aims to empower patients to "discover how they can make a change in their health" (pp. 72-73). Next, Family Therapy aims to improve relationships between the client and their family members, and it requires family presence throughout the recovery process (Lo et al., 2021). Finally, both Chang et al. (2022) and Bong et al. (2021) highlight the effectiveness of Combination Therapy, or combining different approaches of treatment, because it essentially personalizes the session. To this end, an experiment conducted by Bong et al. (2021) found that CBT combined with Music Therapy (MT) resulted in a "significant decrease in the symptoms of [PSU and Internet Addiction]" (p. 116). Overall, these approaches are the forerunners in PSU treatment in past literature.

Therapist Views on Therapy Approaches in PSU Treatment among Adolescents

There currently is scant literature on the opinions of therapists on PSU and its treatment, and the next few sources were the only ones found to address this. Rooij et al. discuss the opinions of therapists treating Internet Addiction with CBT. Through an intervention, they found that CBT, in combination with MI, is suitable for treating IA, increasing self-control, and reducing usage (Rooij et al., 2012, p. 81). Differently, Lo et al. describe that Family Therapy is equally effective in treating IA or PSU among adolescents because it introduces a new aspect of focusing on the patient's relationships rather than the patient (Lo et al., 2020, p. 8). Similarly, Joung et al. (2023), noted that therapists described that parental participation and healthy relations between the patient and their family are especially important to control PSU in the youth (p. 7). Overall, CBT and Family Therapy are rendered effective consistently, by both researchers and therapists.

Gap

Clear especially from the previous point, there is scant literature in therapists' official clinical expertise and opinions on PSU and its treatment for adolescents struggling with PSU. Therefore, this study aims to determine PSU severity among its participants, gather therapist opinions on PSU and its treatment, and discover PSU treatment approaches. With this, the guiding question for this research is, what are the views of therapists treating PSU in North Texas on strategies used in PSU therapy for adolescents ages 14-18? Through past literature, it is clear that CBT, MI, and Family Therapy are the most common and effective treatment approaches. Therefore, the hypothesis for this study is that therapists will employ these strategies in sessions with patients, taking advantage of personalized combination therapy as an added approach to increase effectiveness. This research will help contribute to the basis of therapist opinions in literature—a basis from which researchers and therapists can build effective solutions as previously mentioned—and will inform therapists and adolescents of PSU, its severity, effects, and ways to overcome it. The urgency of PSU lies in the disturbing scale of negative effects that it can bring to adolescents specifically; therefore it is imperative to explore this topic in the context of adolescents specifically.

Methodology

This study used a nonexperimental, mixed-method approach to pursue the aforementioned goals, and was triangulated through quantitative methods. Specifically, the quantitative part of this study included a survey and calculation of descriptive statistics and

Confidence Intervals (CI) while the qualitative part included semi-structured interviews and thematic analysis. The quantitative Likert-type prompts were adapted from the official Internet Addiction Test (IAT) and the Smartphone Addiction Scale (SAS), which aim to determine the severity of their respective excessive behaviors (Ali et al., 2021, p. 3; Yue et al., 2023, p. 2). Therefore, by adapting questions from these official surveys, the method of quantitative surveying aligned with this study's goal of determining the severity of PSU within the sample of adolescents. The aforementioned qualitative methodology is common in this field of inquiry, as shown by the similarity of the methods to Joung et al.'s (2023) focus group interviewing and thematic analysis (p. 2), which aimed to observe the experiences of counselors treating PSU in the youth (p. 1). Therefore, since the research goals of this study were similar to Joung et al.'s (2023), the use of similar qualitative methods was effective and in alignment with the goals of this study. Another common method used in qualitative studies is grounded theory, which involves creating a theory after recursive data collection and analysis (Chun Tie, 2019, p. 6). Although this method would help collect qualitative data, it would best be suited to explain the best therapy strategies through an experiment, or reasons that instigate phone addiction—a conclusion that would not address the gap or goals of this study. Therefore, the chosen method was the most effective way of gathering data to address the goals and research question of this study. This study was approved through a campus IRB, which reviewed and approved research projects based on the ethicality of the topics and methods after submission of an inquiry proposal document (including the goals, method, instruments, and significance).

Participants

The first set of participants was high schoolers ages 14-18 from a suburban independent school district in North Texas. This population was most accessible to provide a representative sample of similar populations and therefore was the most feasible population to observe. The participants were required to have a parent or guardian sign a consent form and were told that participation was completely voluntary.

The second set of subjects was three therapists. These therapists were selected from 3 different cities across a large county within North Texas to get an accurate sample of therapists in North Texas, and were finalized by limiting the options to—using the therapist directory tool from *Psychology Today*—therapists with expertise in treating Internet Addiction, a client focus including 'Teen', and a particular city to ensure multiple cities were covered. Therefore, this study used purposeful sampling to ensure an "in-depth and detailed understanding" when it came to the interviews (Dejonckheere & Vaughn, 2019, p. 3-4). Before the interviews, therapists signed an Informed Consent Form (see Appendix A). This form included potential benefits, risks, and the specifics of identity protection—anonymity was ensured by assigning a code letter to each therapist. Table 1 details the demographics of the 3 therapists interviewed, including their code letter, main work, work experience in years, and their official job title.

Table 1
Demographic Information of the Interviewees

Code Letter	Main Work	Length of Work Experience	Job Title
A	Individual Counseling	3 years	LPCA
B	Individual/Youth Counseling	2 years	LPCA
C	Family Therapy	3 years	LPCA

Instruments

The first instrument was the quantitative survey, which was created and distributed through the software Google Forms. Figure 1 displays the question categories and the questions within each category that were posed. This questionnaire yielded completely quantitative results through 1 MCQ and 7 5-point Likert-type prompts (1 = Strongly Disagree and 5 = Strongly Agree) (n=7). Likert-type questions were used to evaluate PSU within the sample because they gave insight into the degree to which the subjects agreed or disagreed rather than binary answers.

Figure 1

Question Categories and Questions used in the Quantitative Survey

I. Multiple Choice Question
   A. About how much time do you typically spend on your smartphone per day?
      1. 0-1 hours
      2. 1-2 hours
      3. 2-3 hours
      4. 4-5 hours
      5. 6-7 hours
      6. 8+ hours

II. 5-point Likert-Type Statements
   A. I often find myself staying on my smartphone longer than I intended.
   B. I am almost constantly on my smartphone.
   C. I often feel difficulty in abstaining from smartphone use.
   D. I often lose sleep due to late-night smartphone use.
   E. I often feel pleasure from smartphone use.
   F. I often feel bound to my smartphone.
   G. I feel discomfort when my smartphone is not present with me.

Figure 2 displays the list of question categories and guiding questions under each category in the proper order of how the semi-structured interviews progressed. The interviews were split up into 5 sections, Introductory, Preliminary, Transition, Core, and Concluding Questions for organization purposes. A common trend within qualitative research is for interviewers to stray away from the backbone questions and ask follow-up questions, otherwise known as semi-structured interviews. Since this study focused on the opinions of therapists, semi-structured interviewing was the best method of data collection as it promotes the exploration of new concepts that may come about during the conversation (Dejonckheere & Vaughn, 2019, p. 2). In other words, follow-up questions were asked to maximize different perspectives and clarify unfamiliar topics.

Figure 2

Question Categories and Guiding Questions used in the Qualitative Interview

1. Opening Questions
    a. Please Introduce yourself, specifically your main work, years of work experience, and your job title
2. Initial Questions
    a. Please share any experiences you have in treating excessive smartphone use and/or internet use
    b. Have you ever participated in research testing an intervention related to this topic or other similar behavioral addictions?
        i. What were the results or key findings of these studies?
3. Transition Questions
    a. Have you worked with adolescents specifically struggling with Problematic Smartphone Use and/or Internet Addiction?
    b. Are there certain symptoms or experiences adolescents describe when seeking guidance for Problematic Smartphone Use and/or Internet Addiction?
4. Core Questions
    a. What were your experiences working with adolescents struggling with Problematic Smartphone Use and/or Internet Addiction?
    b. What specific treatment approaches or modalities do you feel are best to use when treating adolescents with conditions similar to PSU?
    c. Please share any opinions on the use of combination therapy in sessions when treating issues like these. Is there a specific mix of approaches you would implement in a session treating PSU?
    d. What are some common characteristics you have observed in patients struggling with Problematic Smartphone Use and/or Internet Addictions?
    e. Are there any approaches you highly recommend including in an intervention aiming to better the effects of Problematic Smartphone Use in adolescents?
    f. What have you found to be most successful in treating patients dealing with such issues? This may include certain environment adjustments or session designs.
    g. What are some ways interventions or counseling programs treating PSU could be improved as per your firsthand experience?
5. Concluding Questions
    a. What are the most important things that we covered today? What should I take away from our discussion?
    b. Is there something important that we did not cover or talk about?
    c. Do you have any final thoughts on the topic or advice for building an intervention?

Data Collection

The surveys took about 5 to 10 minutes to complete, and the data was organized using a Google Sheets spreadsheet. The data was visualized into bar charts using the 'Insert Chart' tool and each category for the Likert-type graphs was color-coded for easier understanding. Additionally, the results were compared to past studies to evaluate the significance of the new data in context of a greater population. Likert-type data is ordinal data, or data in which responses can be ranked, but "the distance between responses [cannot be measured]" (Sullivan & Artino, 2013, p. 541). Therefore, in the analysis of the Likert-type data, mean and standard deviation were not measured because they were dependent on the distance between the intervals. To this end, the median was used to measure the central tendency, and the Interquartile Range (IQR) was used to measure the spread of the data.

To compare the Likert-type data to literature about U.S. Teens and make predictions about all adolescents ages 14-18 in North Texas, this study calculated a 95% Confidence Interval (CI) for a range of plausible proportions of agreements. The counts of Strongly Agree and Agree were grouped to calculate the sample proportion ($\hat{p}$) so that the interpretation of the CI could represent a proportion of general agreement. The CIs were observed within the context of population proportions of agreement (p) from other studies that posed similar prompts (see Appendix B). Specifically, it was noted if the CI captured the p, and whether the CI fell above or below the p if it was not captured. Although no single study used the same wording of prompts given to the adolescents verbatim, the studies all observed a similar population and topic—an adolescent population concerning excessive smartphone use—marking them as accurate statistics to compare to.

The interviews with the therapists took about 45 minutes to complete, and were conducted via phone call. Additionally, the recorded interviews were transcribed for thematic analysis. Thematic analysis involves identifying themes throughout the data by coding the data with similar ideas (Naeem et al., 2023, p. 2). The transcriptions (see Appendices C, D, and E) eventually yielded 5 themes which essentially captured "the data's core message…or theme" (Naeem et al., 2023, p. 4). Additionally, the themes were placed in context of external sources to synthesize the new data.

Results

Quantitative Results - Surveys

MCQ Data

364 participants responded to the MCQ titled 'About how much time do you typically spend on your smartphone per day?' This study calculated a small and large weighted mean to report the results accurately. Tables 2 and 3 display the different time intervals, the minimum/maximum hours, and the frequency of its appearance—p. The means were determined by multiplying the minimum and maximum possible hours by their respective frequencies, and then taking the sum of products to calculate the means. From this process, the resulting small weighted mean was 3.38 hours (see Table 2), and the large weighted mean was 4.33 hours (see Table 3).

Table 2
MCQ: Small Weighted Mean of Reported Time Spent on Smartphones per Day

Time Interval	Minimum Hours	*p*	Small Weighted Mean
0-1	0	.030	3.38 hours
1-2	1	.099	
2-3	2	.338	
4-5	4	.343	
6-7	6	.146	
8+	8	.044	

Note. The Small Weighted Mean was calculated by multiplying the Minimum Hours by its respective p, and then summing the products. Ex. ∑ = (.030*0) + (.099*1) + (.338*2)...

Table 3
MCQ: Large Weighted Mean of Reported Time Spent on Smartphones per Day

Time Interval	Maximum Hours	*p*	Large Weighted Mean
0-1	1	.030	4.33 hours
1-2	2	.099	
2-3	3	.338	
4-5	5	.343	
6-7	7	.146	
8+	8	.044	

In comparison to external sources observing U.S. Teens, these means are starkly different. A study done by Common Sense Media, an organization that researches children's use of technology (Radesky et al., 2023, p. 57), found this value to be 4.5 hours (Radesky et al., 2023, p. 14); Furthermore, a study by the Gallup Poll presented the value 4.8 hours (Rothwell, 2023). Both external sources present values that lay above the weighted means. From this, it is clear that the MCQ data underreported the average hours seen in past studies, showing inconsistency with the data found in past studies. Therefore, the reported time spent on smartphones per day within this sample was found to be lower than that of U.S. teens overall.

Likert-type Data

Responses varied from 360 to 363 for the Likert-type prompts, and Table 4 displays the percentage of responses for each answer choice, the median and IQR of each data set, and the number of responses for each prompt. As seen in Table 4, most students indicated agreement with prompts A or 'I often find myself staying on my smartphone longer than I intended' (Mdn=4, IQR=1) (see Appendix F1), and E or 'I often feel pleasure from smartphone use' (Mdn=4, IQR=1) (see Appendix F5). On the other hand, prompts B, C, D, F, and G indicate a central tendency of 3 and a spread of 2. Initially, Mdn=3 indicates neutrality, however, the large spread of the data (IQR=2) reveals polarization and undecidedness among the sample. Although the distributions of individual prompts may be different (see Table 4 and Appendices F2, F3, F4, F6, F7), the most significant finding is that all 5 prompts ultimately yielded data that shows undecidedness.

Table 4
Likert-type Response Data by Prompt

Code	Prompt	SD (1)	D (2)	N (3)	A (4)	SA (5)	*Mdn*	*IQR*	*n*
A	I often find myself staying on my smartphone longer than I intended.	2%	5%	9%	43%	41%	4	1	363
B	I am almost constantly on my smartphone.	9%	19%	32%	29%	11%	3	2	362
C	I often feel difficulty in abstaining from smartphone use.	12%	19%	29%	28%	12%	3	2	361
D	I often lose sleep due to late-night smartphone use.	20%	25%	13%	25%	18%	3	2	363
E	I often feel pleasure from smartphone use.	5%	12%	26%	42%	16%	4	1	360
F	I often feel bound to my smartphone.	12%	26%	23%	26%	12%	3	2	363
G	I feel discomfort when my smartphone is not present with me.	15%	29%	19%	21%	16%	3	2	362

Note. SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree.

Table 5 displays the sample proportion $\hat{p}$ of the agreement for each prompt and their respective 95% CIs. Additionally, Table 5 shows the population proportions p collected from 5 different studies that posed similar prompts (see Appendix B). The majority of CI fell below their respective p—as seen with Prompts C, D, E, F, and G—yet the CI for Prompt A fell above its p, and the CI for Prompt B captured its p. The most significant takeaway from these results is that the data is inconsistent with past literature as only one CI captured its population proportion. Furthermore, the majority of CIs underreported the population proportions. Combined with the underreported MCQ data, this suggests an overall moderate severity of PSU within the sample, as, still, some CIs seem to be captured or above values seen in past data.

Table 5

95% CI for p̂ for Each Likert-Type Statement and Comparison with p from External Sources

Code	Prompt	$\hat{p}$	$\hat{p}$ 95% CI [LL, UL]	p	*CI* Captures p	If N, *CI* Above or Below p
A	I often find myself staying on my smartphone longer than I intended.	0.840	[.803, .878]	0.643[a]	N	Above
B	I am almost constantly on my smartphone.	0.401	[.350, .451]	0.450[d]	Y	—
C	I often feel difficulty in abstaining from smartphone use.	0.402	[.351, .452]	0.540[e]	N	Below
D	I often lose sleep due to late-night smartphone use.	0.421	[.371, .472]	0.547[c]	N	Below
E	I often feel pleasure from smartphone use.	0.578	[.527, .629]	0.700[b]	N	Below
F	I often feel bound to my smartphone.	0.386	[.336, .436]	0.507[a]	N	Below
G	I feel discomfort when my smartphone is not present with me.	0.367	[.318, .417]	0.560[d]	N	Below

Note. $\hat{p}$ is the sample proportion of respondents who indicated agreement with the statement; LL and UL represent the Lower-Limit and Upper-Limit respectively of the $\hat{p}$ CI; p represents a comparable population proportion; Y and N represent Yes and No respectively. The data are gathered from Abuhamdah and Naser (2023)[a], Anderson et al. (2024)[b], Mireku et al. (2019)[c], Schaeffer (2019)[d], and Vogels et al. (2022)[e].

Qualitative Results - Interviews

Thematic analysis revealed 5 themes prevalent within the data: (1) Importance of Community, Peer Support, and Social Interaction; (2) Importance of CBT, Family Therapy, and Parental support; (3) Treatment is unique to each patient; (4) PSU is Rooted in Other Issues; (5) Recommendations for Adolescents.

Importance of Community, Peer Support, and Social Interaction

All three professionals interviewed noted the significance of a community in recovery during PSU. Therapist A details that “the reason why someone would be on the internet for that long is…because of a loss of companionship”, and suggests that social interaction specifically would best help patients with PSU. To this end, Therapist C notes that patients often isolate themselves because they either “don’t have friends…[or]...don’t know how to make friends”, and similarly concludes that this is the basis of their PSU. They propose that peer support groups would support their recovery process because, according to Savci and Asyan (2017), connections help build social connectedness, or “the ability to develop meaningful relationships”

(p. 204). PSU restricts connections like these and in turn hinders social connectedness, driving adolescents into the aforementioned isolation (Savci & Asyan, 2017, p. 210). By being socially connected, adolescents can develop meaningful relationships and, as Therapist B states, can recognize "'Hey, I'm not alone'". Therefore, all three therapists advocate for social interaction to help limit isolation, develop meaningful connections, and make the path to recovery an easier one.

Importance of CBT, Family Therapy, and Parental support

CBT. Each therapist indicated that CBT was their main approach in all sessions, and detailed its validity in treating PSU. Therapists A and B described that CBT essentially drives patients to "get through their irrational thoughts and try to think more rationally'" Therapist C summarizes that it essentially involves replacing these irrational thoughts in the process, therefore getting the adolescent to realize the weight of their irrational, past thoughts, and generate rational thoughts in the future. This pushes them to see a clear way of recovery in which they feel inspired to make a change.

Family Therapy and Parental support. All three therapists suggested the use of Family Therapy to treat PSU. For example, Therapist A stated that "Everyone has to be on board" in the process of recovery, and Therapist C corroborates that "...kids need the…parental guidance and support". Therapist A furthers that the faster their family gets involved, "the quicker the quote-unquote addiction [lasts]...". Therapist B, however, presents two perspectives on the impact of family on recovery:

> I think it can go one of two ways in the sense of if you have a supportive family [and parents] around you…that aren't going to shame you if you're not making the progress they think you should—but are they being supportive? [Are they] trying to help and find ways, trying to model, in a good way, their own smartphone usage? I think that could be a huge predictor of success. On the opposite side of things, if you have a parent or family member who is going to hound you…if your smartphone usage hasn't been cut back to a level that you'd like or that they would like, I think that could bring in that shame aspect.

Therefore, families need to be supportive for Family Therapy to be productive. This is because, as Trumello et al. (2021) describe, a supportive family could "provide adolescents with a stable and safe environment for growth" (p. 2), while an unsupportive family—characterized by high rejection and shame—can demotivate the adolescent, and "easily steer [them] towards the Internet" (Ren & Zhu, 2022, p. 1484). Therapist A states that "parents are very paramount in that process of change", and therefore their supportiveness determines the route of recovery. Therefore, Family Therapy, with proper family and parental support, is of grave importance in the treatment of PSU in adolescents.

Treatment is unique to each patient

Each therapist detailed that they take a non-standardized approach for their clients as each patient has a different background. Therapists A and B build on this, offering that "overall you come in with…evidence-based things that have been proven to work with clients…of similar issues, and yet every client, every case is unique" (Therapist B). To address this, the therapists use Person-Centered Therapy (PCT), which is "more so going with the flow of that person" (Therapist A). Marchand et al. (2018) explain that PCT gives the patient space to gain self-understanding and realize their newfound capacity to overcome the issue (p. 2). These attributes ultimately help the clients find themselves in control of their excessive behaviors. Furthermore, Yang et al. (2023) describe that when adolescents gain this, they develop a growth mindset which prompts them to take ownership of their behaviors to meet their long-term goals

(p. 6). Ultimately, since each patient's case is unique, PCT can be used to understand each adolescent's unique situation, and help them achieve self-understanding and develop their intrinsic motivation to improve their smartphone use habits.

PSU is Rooted in Other Issues

Therapist A states that PSU is not a surface-level excessive behavior but "a…byproduct of a bigger issue." They suggest "to not look only at the surface" as there will be an issue "underneath the surface that's way deeper than just the phone" (Therapist A). To uncover the root issue, Therapist C recommends the use of Internal Family Systems (IFS), and Adverse Childhood Experiences (ACE). IFS helps, in Therapist C's words, "have a picture of the family", which is important because "if [adolescents] have problems in the house or if parents have problems…the kid wants to escape on the phone". This significance of IFS is noted in literature too, as Bağatarhan et al. (2023) emphasize that "carefully [considering] the importance of…parenting behaviors" is needed to treat PSU effectively (p. 2712). Therapist C goes on to explain that ACE strives to achieve the same goal, yet focuses on childhood experiences that may have instigated the PSU, such as "addictions in the family…abuse…molestation, domestic violence …tragic deaths, [or] trauma". Therefore, it is important to carefully examine the underlying issues that instigated PSU through IFS and ACE, as gathering information on these issues will help inform therapists on how to best go about treatment.

Recommendations for Adolescents

The final theme consists of the following three recommendations that the therapists offered for adolescents struggling with PSU: establish reasonable goals, make a change in routine, and be mindful. Therapists B and A describe that establishing attainable goals such as "easing back how many hours…on the phone is more effective than just" stopping use immediately (Therapist A) is more effective in recovery. Keller et al. (2023) state that a goal-directed recovery develops a self-efficacious smartphone use mindset (pp. 162-163), which can motivate adolescents to feel motivated to change their behaviors. Therapists B and C share the perspective that making this "routine change [or behavioral change] is absolutely essential when dealing with PSU" (Therapist C). Alongside reasonable goals and active change, being mindful, or present in the moment, also plays a key role in recovery. Therapist B conveys that mindfulness reduces PSU as it gives adolescents time to recognize their feelings (Therapist B) and "what the addiction is doing to them" (Therapist C). Additionally, Yang et al. (2019) present that mindfulness helps develop adolescents' tolerance to withdrawal from smartphone use (p. 827). Therefore, by adhering to these recommendations, adolescents can improve their recovery process and effectively reduce the degree of their PSU.

Discussion

Quantitative Conclusions

One of the goals of this study was to determine the PSU severity of adolescents similar to those of my sample. The conclusion for this goal is that there is a moderate level of PSU observed in my sample and of populations within North Texas similar to it because the MCQ data from this survey yielded an average smartphone usage lower than what was seen in past data, and the majority of the CIs generated from the Likert-type data were lower than the population proportions from past data. Since questions from this survey were adapted from surveys built to determine the severity, this trend proves this overall conclusion is valid. This trend also marks the quantitative data to be inconsistent with past findings.

Qualitative Conclusions

The final two goals of this study were to gather therapist opinions on PSU and treatment and discover different approaches. The main opinions expressed the importance of having social support, a supportive family, and establishing reasonable goals to ensure a smooth recovery, and the importance of addressing the uniqueness of each patient. The findings about approaches disprove the initial hypothesis, which predicted the employment of MI and Combination Therapy apart from CBT and Family therapy in sessions. Rather, PCT, IFS, and ACE were among the common approaches found.

Limitations

This study has limitations that are important to address. Firstly, as previously mentioned, the quantitative survey failed to provide the answer choice of '3-4 hours', '5-6 hours', and '7-8 hours' in the MCQ (see Figure 1). However, inaccuracy was partly combatted by calculating a small and large weighted mean as it accounted for any variation. A possible reason for the inconsistency of the quantitative data with past data is bias. In this study, participation was voluntary, which gives way to self-selection bias and can lead to a biased sample and impact the generalizability of the findings (Nikolopoulou, 2023a). Additionally, the use of a self-reported survey brings social desirability bias, which is the tendency to answer according to the norm (Nikolopoulou, 2023b) which, in this case, would most likely have been underreporting true behaviors or opinions to seem less 'addicted'. This was partly combatted by keeping anonymity, increasing truthfulness as identifiable traits were omitted. Additionally, since the interviews were limited to Licensed Professional Counseling Associates, this study failed to gather perspectives from other therapists such as psychologists or psychiatrists—known as undercoverage bias, which impacts the generalizability of the qualitative findings to all therapists in North Texas. Finally, thematic analysis requires the researcher's interpretation of data to generate themes; therefore, the resulting themes may be the product of subjectivity.

Implications

As stated before, Lo et al. (2020) state that clinical expertise or therapist opinion is imperative to develop effective solutions (p. 2). Therefore, this study provides a newfound basis by which researchers can build effective solutions to combat PSU among adolescents Additionally, this study provides valuable information to therapists in it reveals effective therapy strategies that therapists can implement to better future PSU treatment. Finally, this study ensures that adolescents remain informed about PSU, which helps them be mindful of possible strategies to overcome it and its ramifications. Therefore, this study significantly impacts therapists and adolescents.

Conclusion

In conclusion, the level of PSU severity is moderate within this group of adolescents and populations similar to it; having social support, a supportive family, and reasonable goals helps ensure a smooth recovery, and the uniqueness of each patient must be addressed by therapists; and CBT, Family Therapy, PCT, IFS, ACE are all common and effective therapy approaches used to treat PSU in adolescents. Overall, this study addressed the gap (scant literature on therapist opinions concerning PSU treatment for adolescents) by introducing new therapist opinions on this topic and the therapy approaches used by them and effectively provides a basis of clinical expertise from which solutions can be made. Therefore, these opinions and approaches should be considered when designing future therapy sessions to ensure effective and informed sessions.

Future Directions

For future research, researchers should focus on gathering opinions from a variety of therapists to uncover possibly different and new perspectives on the topic. Secondly, future research should determine the cause of the inconsistency between this study's quantitative results and past studies' results, as the presence of inconsistency in both the MCQ and Likert-type data suggests there is a factor other than bias that may have contributed to underreported values. Thirdly, researchers should conduct a test intervention utilizing the therapy strategies found in this study to inform therapists of the actual effectiveness of the approaches. Finally, future research should continue to expand on this topic of inquiry and gather therapists' opinions on PSU and its treatment. Achieving a complete understanding of PSU and its treatment is dependent on the availability of therapist opinions in literature. By pursuing such research, a greater number of therapists can be informed of effective strategies to address PSU, and this ultimately serves to bring betterment to PSU treatment for adolescents in the future.

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Appendix A
Informed Consent Form distributed to Therapists

Personal Information was omitted to ensure anonymity, and any omits are represented by '[...]'.

[…] **HIGH SCHOOL**
CONSENT TO BE PART OF A RESEARCH STUDY

1. KEY INFORMATION ABOUT THE RESEARCHERS AND THIS STUDY

Study title: A Quantitative and Qualitative Study on PSU Severity, Therapist Opinions of PSU, and PSU Treatment in North Texas

Principal Investigator: [...]

Faculty Advisor: [...]

You are invited to take part in a research study. This form contains information that will help you decide whether to join the study. Taking part in this research project is voluntary. You do not have to participate and you can stop at any time. Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

2. PURPOSE OF THIS STUDY

This research aims to discover the strategies used by therapists treating Problematic Smartphone Use (PSU), discover which approaches they consider most effective, compare the rationales provided regarding effectiveness, and create an effective model intervention aimed at treating adolescents struggling with PSU as per insight from the researchers and previously researched material.

3. WHO CAN PARTICIPATE IN THE STUDY

3.1 Who can take part in this study?
Therapists experienced in treating behavioral addictions, Internet Addiction, and in treating adolescents. It would be greatly beneficial if the therapist is familiar with conditions such as Problematic Smartphone Use or Internet Gaming Disorder, and therapy approaches such as Cognitive-Behavioral Therapy, Motivational Interviewing, or Nudge-based Sessions.

3.2 How many people are expected to take part in this study?
Experts from 3-6 different cities across […] County will be selected to take part in this study, amounting to about 3-6 therapists from different offices and organizations.

4. INFORMATION ABOUT STUDY PARTICIPATION

4.1 What will happen to me in this study?
In this study, subjects will be interviewed regarding certain approaches for behavioral addictions, their experiences with adolescents struggling with Problematic Smartphone Use, Internet addiction, or similar issues, their opinions on certain intervention approaches, and will be asked their final opinions on the matter. The questioning is grouped into 5 categories: Introductory questions, Preliminary questions, Transition questions, Core questions, and Concluding questions. Participants will be interviewed in their respective offices or institutions, or virtually via phone call or an online meeting platform. Prior to the interviews, researchers will be contacted either through email or phone to schedule a time and date. The conversation will be recorded and later transcribed. Some examples of questions that will be asked include:

- Are there certain symptoms or experiences adolescents describe when seeking guidance for Problematic Smartphone Use and/or Internet Addiction?
- Are there any approaches you recommend including in an intervention aiming to better the situation and effects of Problematic Smartphone Use and/or Internet Addiction in adolescents?
- What are some ways interventions or counseling programs treating PSU could be improved?

4.2 How much of my time will be needed to take part in this study?
Each interview will take around 30 to 45 minutes. This is needed to receive comprehensive responses for each question posed and obtain additional information considering follow-up questions. This study is not longitudinal, so experts will only be interviewed once. Participation in this study will be over after the interview is completed.

5. INFORMATION ABOUT STUDY RISKS AND BENEFITS

5.1 What risks will I face by taking part in the study? What will the researchers do to protect me against these risks?
Some potential risks in participating in this study are speaking on and dealing with sensitive topics such as mental health issues, including anxiety, depression, and self-harm. To minimize this risk, the questions will not be posed to uncover information on mental health. Additionally, questioning may lead to a breach of personal client information. To limit occasions of this, the focus of the questioning is tailored to the therapists' experiences rather than their clients' experiences. Finally, certain questions may lead to a breach of personal information that could identify the therapist. To minimize these risks, the participants will only be interviewed on their expertise and broad experience, personal identifiers will be stored securely and separately from the research information collected from the interview, and a randomly selected code letter will be assigned to each subject interviewed to ensure anonymity. Additionally, response is voluntary and refusal to answer certain questions will not penalize the participant.

5.2 How could I benefit if I take part in this study? How could others benefit?
This study is significant to the adolescent population of America as this point in their life marks a pliable point of mental growth. If information such as solutions or insight regarding strategies to reduce PSU and its effects can be publicized, then it can assist adolescents in overcoming this

hardship with the new knowledge, and will inform the public and researchers about the state of PSU in North Texas. Additionally, information regarding sessions and approaches can be integrated into therapy sessions to develop effective session plans for treating adolescents struggling with PSU.

6. ENDING THE STUDY

6.1 If I want to stop participating in the study, what should I do?
You are free to leave the study at any time. If you leave the study before it is finished or has started, there will be no penalty to you. If you decide to leave the study before it is started, please tell one of the people listed in Section 9, “Contact Information”. If you choose to tell the researchers why you are leaving the study, your reasons may be kept as part of the study record. The researchers will keep the information collected about you for the research unless you ask us to delete it from our records. If the researchers have already used your information in a research analysis it will not be possible to remove your information.

7. PROTECTING AND SHARING RESEARCH INFORMATION

7.1 How will the researcher protect my information?
General characteristics such as main work, length of work experience, and job title will be recorded to inform the audience of the paper about the general demographic of therapists partaking in the study. Your name and other information that can directly identify you will be stored securely and separately from the research information collected in the interview. To ensure anonymity, a randomly selected code letter will be assigned to each subject interviewed. Essentially, participant information will be kept secure and confidential.

7.2 Who will have access to my research records?
The reason why information about you may be used or seen by the researchers or others during or after this study is because:

- [...] High School Officials and the Campus Institutional Review Board (IRB) may need the information to make sure that the study is done safely

7.3 What will happen to the information collected in this study?
I will record the information I collect about you during the interview to inform the audience of the paper about the demographic of the therapist interviewees. Concerning the core information collected from the interview, the audio will be converted into transcription to understand the data more effectively, similar content and phrases will be grouped to synthesize perspectives and generate potential themes, and headings will be created to group certain transcription pieces under these themes. Additionally, the information will be compared with outside data to synthesize perspectives and come to a conclusion. Additionally, the information collected will be used to create a model intervention for treating adolescents struggling with PSU. The information collected in the study will eventually be presented and could be published in an article, but will not include any information that would breach anonymity.

7.4 Will my information be used for future research or shared with others?

I may use or share your research information for future research studies. If I share your information with other researchers it will be unidentified, which means that it will not contain your name or other information that can directly identify you; this research may be similar to this study or completely different. I will not ask for your additional informed consent for these studies.

8. CONTACT INFORMATION

Who can I contact about this study?
Please contact the study team listed below to:

- Obtain more information about the study
- Ask a question about the study procedures
- Leave the study before it is finished
- Express concern about the study

Principal Investigator: [...]
Email: [...]
Phone: [...]

Faculty Advisor: [...]
Email: [...]
Phone: [...]

If you have questions about your rights as a research participant or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher, please contact the following:

[...]

10. YOUR CONSENT

Consent/Assent to Participate in the Research Study
By signing this document, you are agreeing to participate in this study. Make sure you understand what the study is about before you sign. I will give you a copy of this document for your records and I will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information in Section 9 provided above.

I understand what the study is about and my questions so far have been answered. I agree to take part in this study.

Print Legal Name: _____

Signature: _____

Date of Signature (mm/dd/yy): _____

Appendix B
Likert-type Prompts from the Current Study in Comparison to Likert-type Prompts from External Studies

Table B

Prompt Code	Current Study's Prompt	External Study's Prompt	Source
A	I often find myself staying on my smartphone longer than I intended.	"Using my smartphone longer than I had intended"	(Abuhamdah and Naser, 2023)
B	I am almost constantly on my smartphone.	"..[x percent of].U.S. Teens… say they are 'almost constantly' on the internet"	(Schaeffer, 2019)
C	I often feel difficulty in abstaining from smartphone use.	"[x percent of] U.S. teens say it would be very…or somewhat hard…for them to give up social media"	(Vogels et al., 2022)
D	I often lose sleep due to late-night smartphone use.	"Night-time use of [smartphones] among [an adolescent] cohort"	(Mireku et al., 2019)
E	I often feel pleasure from smartphone use.	"...[x percent of] teens say smartphones provide more benefits than harms for people their age"	(Anderson et al., 2024)
F	I often feel bound to my smartphone.	"Won't be able to stand not having a smartphone"	(Abuhamdah and Naser, 2023)
G	I feel discomfort when my smartphone is not present with me.	"[x percent of] teens…associate the absence of their phone with at least one of three emotions: loneliness, being upset or feeling anxious"	(Schaeffer, 2019)

Appendix C
Interview Transcript of Therapist A

Repetitiveness, greetings, and any mention of personal information was omitted to ensure clarity and anonymity in the transcripts. Therapist A's responses are labeled with 'A:'

So to preface this, there are five phases of questions. There are the introductory, preliminary, transition, core, and the concluding questions. This conversation is being recorded so that I can get a proper transcription later.

A: Gotcha.

So for the first section—introductory question—please introduce yourself, specifically your main work, your years of work experience, and your job title.

A: Okay. As far as my job title, it's a licensed professional counselor associate. And then here's my experience, I've been counseling for 3 years? Yeah, three years, I would say, after graduating. And the population I work with is adolescents, teenagers, young adults, as well as older adults.

Okay. Thank you so much. That's the first phase. The second part is, please share any experiences you have in treating excessive smartphone use and/or internet use.

A: So you mean to say excessive smartphone use?

Yes, so either excessive smartphone use, internet use, anything like that.

A: Okay. Well a lot of the teenagers and like preteens I see, especially when it was like right after COVID, a lot of people were online. So are you wanting to know like how I treat them?

Yes, how you treat them.

A: Okay. Well, usually how that would go, we would really find the root of the issue. So a lot of times it's a means of different communication. So for example, let's say, usually parents and stuff, they're at work usually. So then kids don't have rides to go wherever they want to go to meet up with their friends. So then it's usually, "hey, I'll text you". "Hey, you know, we can keep up communication, whether it's Facebook, Instagram, Snapchat", you know? So then it becomes where they're very consumed right after school.

Ah okay, thank you. The next question is, have you ever participated in any research testing an intervention related to this topic or similar behavioral addictions? So like an intervention of you treating adolescents in a certain way or like with a certain therapy approach?

A: No I have not, but I would say it was usually like Cognitive Behavioral Therapy. And usually when we treat like internet addiction or even cell phone use, it's usually like a byproduct of a bigger issue. So that could be either like anxiety or like social anxiety, which is a really big one.

And that's usually where we see like an increase of phone usage if they have social anxiety for example.

Okay. The next question is, have you worked with adolescents struggling with problematic smartphone use, which you said you have? Correct?

A: Yes.

So, are there any certain symptoms or experiences that your patients describe when seeking guidance for internet addiction or excessive smartphone use? Is there something that you see that's common among all of them?

A: I would say insomnia for sure, and lack of concentration.And usually what I've seen is like some sort of anxiety somewhere in there, whether it's generalized or social, and mostly like a lower self-esteem as well.

Okay, so you mentioned insomnia could you describe what insomnia means in this context?

A: Yeah, so with insomnia, that's pretty much where someone has trouble sleeping. So they may stay up later than usual. So like in this context, as far as social media usage, things like that, they'll stay up to like two or three. And it's usually like a blue light filter, a blue light that's coming through. So they'll have to take like melatonin and stuff like that to kind of go to sleep, essentially.

Okay, so now for the next part. These are the core questions. So what specific treatment approaches or modalities do you feel are best to use when treating adolescents with this condition?

A: Well, definitely Cognitive Behavioral Therapy for sure. And that's mainly the one I use.

Could you describe a typical cognitive behavioral therapy session that you would have? Maybe in the context of an adolescent, how would that type of session go? What would you do within that?

A: Oh, that's a good question. I think it would really just depend on the individual. So let's say if it was someone was dealing with social anxiety, for example, then what we would do is look at their root causes, essentially, like what's underneath the surface. Let's say if they have like cognitive distortions is what we call it—the cognitive distortion of black-and-white thinking where they'll say, “hey, it's either this way or that”. Usually like, I know a lot of them say with social anxiety, they have a fear of being rejected or embarrassed by their peers. So we work through that and try to get through their irrational thoughts and try to think more rationally. So, if someone doesn't text them back, for example, then maybe your irrational thought would be “Oh, this person must hate me”. But then with Cognitive Behavioral Therapy we'll work through getting through the actual rational thought of “hey, maybe it's a possibility that they don't hate you but they were just busy at that time so they didn't respond within five minutes” for example.

Oh okay, that's interesting. I actually was stuck onto one thing that you said, that it really depends on the individual and the root cause of that specific individual. So prior to this interview, I have been conducting research to create a literature review for my research paper. And I've seen something so many different therapists say is that the patient's experience is highly subjective and that it's influenced by families—like their smartphone use patterns are influenced by families or parents or friends and they also say that the therapist has to use their kind of own assortment of strategies when treating it, so would you say that it really does depend on the individual when you're creating a certain plan for them?

A: Definitely. Especially when it comes to different people's backgrounds and their cultures because people view cellphone usage in various ways that I've seen with different cultures.

So Cognitive Behavioral Therapy, is that something that can be in a group session and a solo session, or is this mainly group?

A: Well, I would say it could be used in both, but I usually just use it in individual sessions.

As I was researching, I did come up, come across this thing called combination therapy, and from my understanding, it's using different strategies in the therapy. Do you use this in your sessions? Do you use combination therapy sometimes?

A: Sometimes yes, but not usually. Like, I may use different modalities and weave them into it, but not necessarily just Motivational Interviewing or Narrative Therapy, for example.

What do you mean by the treatment modalities?

A: Yeah so treatement modalities would be like, for example, Cognitive Behavioral Therapy is a type of treatment and then another one could be like Adelarian therapy. Those are like the types of modality. Those are kind of how the therapists thinks in a way of how to formulate the session.

Okay. So you have like this overarching strategy that you use and then there's specific things that you…

A: Exactly. Yes.

So just to clarify, you mainly use Cognitive Behavioral Therapy in your sessions with clients dealing with Internet Addiction or Problematic Smartphone Use, right?

A: Right, yes.

So is there another type of therapy approach that you would recommend to use or that you would use in sessions?

A: I would say like Person-Centered Therapy, and that's like the modality. The reason why I would say that one is only because like I said, it depends on an individual and how they see

people. In that modality, it's more so going with the flow of that person. Now, I would assume it would kind of take longer than Cognitive Behavioral, only because it's so much more research that's been done on the exact steps of what to do with Cognitive Behavioral.

Okay. Then the next one. I already asked you about the common characteristics you've observed in patients. Okay, so have you had many clients that deal with Internet Addiction? Is this something that you find that's common in your office?

A: That's a good question. I would say not as often as it was when I first began. It seems like it's kind of leveling off now. And I'm wondering if it's because of like, post-COVID essentially where now everything is opening back up, people can go to the movies, go to the mall, and actually socialize in real life.

Okay. Okay, so now that we've talked about the therapy strategies, I want to talk about general external features. So what have you found to be most successful in treating patients dealing with these issues? It may include certain environment adjustments, how the session is structured, or how long the treatment usually takes. What have you found to be most effective?

A: I hate to say it depends, but basically, it does depend, I've noticed it would take at least anywhere from like 8 to 12 sessions. And it would become not only the child's issue, but the parents as well. Everyone has to be on board. So the faster that happens, the quicker the quote-unquote addiction isn't as long, for example. Usually, it would take at least 30 days to pretty much like break a habit or even start a habit. So, well, we typically would suggest too is, let's say, if the client is just on the phone all night, all day, all night. Usually, they're trying not to be on the phone, you know, during school, but let's say at home, they're just on the phone. But then having set times to actually use the phone and then kind of start easing back how many hours you're even on the phone is more effective than just going cold turkey.

Yes, okay. How do you ensure that they actually recover? Is it mainly just like communication with them or is it small adjustments?

A: Well, it would depend on the treatment plan so let's say if their goal was to use the phone maybe no more than two hours out of each day, right? So then we would just be trying to see how we could do it. So let's say they're using the phone, at least six hours every day. Okay, so then we would first say, okay, here's your problem—six hours—and let's try to see what you can reasonably get to in two weeks, and then in four weeks, and then in six weeks. So then we're tracking the progress to make sure that it's continuing to go down. Now, of course, it's all self-reported, so we wouldn't know unless, you know, the client says, "Hey, I'm getting better." Or if a parent was to say, "Hey, they're getting better", or we could look at their phone usage. I know like iPhones, they have that chart of how long you've been on your phone. So usually, we try to set time limits on that.

So for you, just a question—from your experience, in these sessions, how do you think that treatments for Problematic Smartphone Use or Internet Addiction could be improved? Or what is something that everyone could implement that could better the recovery process, the time it takes to recover, or in general the quality of these sessions?

A: Well, I would say to not look only at the surface, because at the surface, it would look like, “hey, this person is just using their phones”, or, you know, “it's very problematic”. But usually, like I said, it's just something underneath the surface that's way deeper than just the phone. Because that could even be, gratification issues, parent issues, like family issues, friends issues, and it's all just showing on the surface that it's like an internet or a phone issue.

Okay, so having a phone addiction does comprise of multiple aspects, correct?

A: Yes, definitely.

So now we have reached the concluding questions. So in your opinion, what are the most important things that we've covered today? Are there any specific takeaways you feel are very important for me to take to my research?

A: Okay. I would say the most important thing to take away from it is every person is unique, and each situation could be slightly different, even though it may be the same issue, for example, it could be something below the surface that would need to be pretty much taken care of than just taking away the cell phone. Because if that were to happen and it's not replaced with something healthier, like a healthier coping mechanism, then it could lead to more problems.

Okay. So you just mentioned coping mechanisms—are you saying that like during the treatment process, you try to replace the use, like the absence of the phone, the kind of gap that they feel now that they're trying not to use their phone?

A: Yes.

Are there any specific coping mechanisms that you recommend for adolescents to implement as they recover?

A: Yes, so I would recommend breathing exercises that's a popular one, exercising, drinking water, or eating fruits and vegetables things like that or a lot of them go on walks. That's always a good one. To get fresh air.

Okay, and do you think that these breathing exercises, water, fruit, vegetables, and walks, would also be very beneficial for those struggling with Problematic Smartphone Use?

A: Yes.

Okay, are there any other specific ones that you think would be tailored more to Internet Addiction?

A: That is definitely a little tricky at times, but I would say pretty much for them to hang out more with their family if they can, or try to interact socially in person more so that they're not on the internet. Because usually the reason why someone would be on the internet for that long is a lot

of times because of a loss of companionship, or maybe they're afraid to actually socialize in person.

Okay, so it must be very difficult for those with social anxiety then to recover if they do have smartphone addiction, I'm guessing.

A: Right.

Okay, so is there something important that we did not cover or talk about? Something that you feel like is missing to kind of conclude this interview? Something like that.

A: I would say about gratification. Maybe just, expanding on that topic only because with internet usage with phone usage, the information we want is right there. So if you were to search for something you can find it right in that instant whereas back in the day, you would have to go find it in a newspaper, go to the library, or go ask someone. If it's just having it right there, that can cause stimulation issues where you're just not as happy having to wait for things. And so pretty much you would even have to work on that part too, because you're literally getting instant gratification every time you click on something because it pops right up in your face.

How how do you recommend your clients go about combating withdrawal from the smartphone during recover? Because I know it's a difficult issue and it relies on the client.

A: Yeah. Now, that could be hard. That could be tricky because it's literally having to retrain your brain that this isn't okay anymore. So I've even seen people do music therapy. So listening to music, dancing, even tapping on their knee or drawing—different things like that. So every time they have that urge to go on their phone or go on the internet, like, “hey, let's slow down, let's do something else”. So that's kinda hard. It's gonna be hard for the first few days, you may even have physical symptoms like headaches or lower appetite, things like that. Especially if it gets like really bad.

Yes, so finally, do you have any final thoughts on the topic or advice for building an intervention? Because my ultimate goal in this research is to take your insight and other therapists' insight, kind of come up and find major themes that I see, like major recommendations or therapy strategies that should be used in interventions. So do you have any final thoughts on the topic or advice for building an intervention? Like what to include, the main things to include.

A: Okay. I don't know if this counts but let's say it was like a social media thing that they were you know taking it every five seconds or something like that. Turning off the notifications for it and even possibly logging out completely and completely abstaining from it would help. And then of course, I would even say it's possible, and I know it's hard, but for teens to not have their phones right next to them in bed because it's too tempting.

So I wanted to ask you for your main work so what's the main type of thing that you are a part of in your organization?

A: So individual counseling is pretty much what we do, like private practice work. So we mainly see individuals, couples, and families.

Okay, yeah, so also I saw that you work at a Family Therapy Counseling center. And so, is that something that you mainly do, like in sessions that you would call over the parents as well to participate in some sessions? Do you think that's beneficial to the client's progress?

A: Yes, definitely. Because pretty much, especially when it comes to kids or even teens, the parents are very paramount in that process of change. Because otherwise, like when they go home, if nothing changes, then pretty much the teen probably is just going to go back on their phone, most likely.

So you said the parents are very paramount in the process of change?

A: Yes.

I think that's all. Thank you so much for participating in my interview. And yes, your personal details will not be published in my research paper. So now the interview has ended and your participation in the study has officially ended, and I won't contact you again for the research.

A: Okay, well thank you.

Appendix D
Interview Transcript of Therapist B

Repetitiveness, greetings, and any mention of personal information was omitted to ensure clarity and anonymity in the transcripts. Therapist B's responses are labeled with 'B:'

B: Hey, good to touch base with you today man.

Yes, I'm so glad we are able to talk. So again, just to reintroduce the project that I'm doing, So today the questions that I have will be for you on your experience with this or your advice with creating an intervention or your opinions on different approaches.

B: Yeah, no, that sounds like a great topic right there for sure.

But anyways, so let me just describe how the interview is going to go. So this will be from around 30 to 45 minutes. There will be five phases of questioning. So the first one is introductory, then the preliminary, transition, core questions, and then finally the concluding questions.

B: Sounds sounds like a plan.

Okay. Please introduce yourself, specifically your years of work experience and your job title.

B: Well, I am a licensed professional counselor associate. I've been here for a little over two years now mainly seeing Children about eight and up as well as young adults.

Okay, what is your main work? So for example, some said personal counseling and some said individual counseling. So what would you consider your main work to be?

B: I'm mainly specialized with individuals and also with minors, I'd say kids about eight and up. I have the majority of my caseload as it stands right now is kind of in that eight to 15, 16-ish range. So, see a lot of teens as well.

Okay, makes sense. Okay, so that was the first phase of questions. So now onto the preliminary questions. Please share any experiences you have in treating excessive smartphone use or internet use or something similar.

B: The teens that I have seen come and are like, "hey, I'm on Instagram or TikTok or whatever for however many hours a day". I've also seen a decent amount of people who maybe it's not their main issue for but as we get going through the therapy process they like to bring up you know that "I've probably been playing video games a little bit too much", and so I see a lot of gaming addiction that pops up as well. And so, yeah, I'd say I throw gaming in there as well on top of, you know, just social media addiction and excessive internet use as things that I have come across especially with teenage clients.

Okay. In my research, Internet Addiction, Problematic Smartphone Use, and Gaming Addiction all are very related in their symptoms. And the thing with Problematic Smartphone Use is that it's not an officially diagnosed condition. So I'm kind of having to use Internet Addiction and Gaming Disorder to get my information for it. So that's why I'm asking that.

B: Yeah, no, that makes sense. I wouldn't be surprised sooner rather than later when we get an official diagnosis for smartphone addiction. I think that'll be coming.

Yes, yes for sure. Okay, so the second question is, have you ever participated in research, testing, and intervention related to this topic?

B: I haven't been a part of, you know, research in regards to this.

Okay, so now it's the third phase, the transition. One of the questions is if you have worked with adolescents specifically struggling with Problematic Smartphone Use, and you said that you have, correct?

B: Yes.

So my next question is, are there any certain symptoms or experiences that these adolescents describe when they come to you for help in treating this issue? Is there something you see in common?

B: Yeah, that's a good question. And it's interesting to know too, because a lot of time whenever you go into that excessive smartphone use, internet use, etc., a lot of times people, the more they're on these apps or the internet, the less happy they are. I see a lot of these people, anxiety is a huge, huge symptom whenever it comes to that. I would also throw depression in there as a common symptom or trait and you know also, just in a broad sense, a lot of these people are looking for, you know, a connection of community of sorts. I found even differences from an age or male, female, whatever the case may be, a lot of them are at the end of the day looking for their connection or their own sense of community in, you know, whatever app they're in or, you know, an online world. And so that would be another, you know, common symptom. So I'd say anxiety, first and foremost, depression, and then a sense of longing for connection/community.

Okay, so you think they're just trying to find security? Do you think it's more of like, social anxiety? So they're trying to find security in themselves and like having that community to back them up or just like, basically just like friends to talk to?

B: I've seen more of the second way that you just to just have a general community, friends, et cetera. And I think a lot of it comes back as well, which I may touch on later, but just that Fear Of Missing Out as well that comes in, especially with your more social apps like Instagram or Meta or whatever else where you're seeing someone's just their highlight, right? A lot of the adolescents that I've talked to that are struggling with this, they fall into that trap of comparison. It's tougher than to pull away from that you know, smartphone usage just because it is such an integral part of their lifestyle and routine on top of also wanting to, you know, not miss out on,

you know, updates and or, you know, keeping tabs on what everyone else is doing and comparing yourselves to that. Especially in the adolescent population, there is a danger there not to be doom and gloom or overemphasize it, but there's just things to definitely be mindful of because, yeah, that Fear Of Missing Out can be a powerful motivator.

Alright, so this is the fourth one. What are your experiences of working with adolescents struggling with Problematic Smartphone Use or Internet Addiction? In fact, actually, do you see any differences in the experiences of symptoms between the different age groups specifically like for adolescents versus adults?

B: I deal with a lot of my clients who are, you know, addicted to Instagram or TikTok per se, right? I see a lot of kids who are addicted to YouTube and yet again, that kind of feeds into it, right? Because it has the algorithm, it knows, you know, once you start watching some content and then it wants to keep you on. So, and a lot of these kids won't even watch regular television or whatever, because it's like, oh, I just have my YouTube and my favorites. You know, it brings up another point, not to derail from the question you asked me, but it is a unique issue because I mean, could you live in the world without the smartphone? Yes, you could. Would it make your life a lot more of a pain in the butt and more difficult if you had an old-school phone or something? Like, it's the world we live in. It's like everybody in a sense needs a smartphone. So then it's like, how are we going to utilize that in a way that is healthy? So I find the older you go through adolescence, the more reliance that the person has on the smartphone.

Okay, so my next one is a bit more specific, but what specific treatment approaches do you feel are best to use when treating adolescents with conditions similar to PSU or adolescents?

B: Yeah, so I work from a Cognitive Behavioral Therapy modality or CBT. And a lot of what that does is address our thoughts and the cognitive distortions that may occur. So a brief overview is thinking like, okay, our thoughts a lot of times impact our feelings and then our feelings impact our actions. So a lot of what I try to do with it is trying to get people to see what their thinking errors are, what the cognitive distortions are that they might be having, and then be able to see how that impacts how you feel. So for instance, for talking specifically with PSU, like if I am thinking let's say I'm on Instagram or TikTok or whatever, and I come across something that makes me sad or jealous, and I see somebody having the time of their life, and then I start thinking and get those thoughts going, and oh man, they're living a better life than me. So that is going to then impact my emotions and feelings. If I start brewing on that thought for a while and keep scrolling through the mass or whatever the case may be, so then what feelings are gonna come whenever I'm having those thoughts? I'm probably gonna start feeling a little you know, I'm feeling negative. I'm feeling, maybe I'm feeling a little sad, maybe I'm feeling a little anxious or insecure, or, you know, just something along those lines that are going to trigger a more negative emotion and unhappiness in general. And then that's going to affect action, what's the action gonna be? Well, a lot of times they're negative, you know when the coping skills come through with that. So that's just kind of a brief overview of one of the ways that I like to attack PSU and similar, you know Gaming Addiction, Internet Addiction whatever it is, and how that can start to help the client see that, hey, maybe I don't even need to use this smartphone as much because a lot of times it does lead me to negative thoughts or feelings, et cetera, and isn't the best thing for me as a person right now. And then, you know, it's one thing to address the

thoughts, right, but then also just some practicality as well. I'm trying to come up with solutions for the clients that are doable for them because you're not really going to have success if you bring down the hammer so to speak and say hey you can't use your smartphone at all. It's like you got the fountain going. You can't fully turn it off, right? And so I think I think, you know, just coming up with the client and meeting them where they are as well is another thing. I try to be like, what are some like actual obtainable goals that we can have with your smartphone usage to where we're not cutting it out entirely? I'm not saying you can't ever go on Instagram or play this app or go on TikTok or this or that but it's like can we set some boundaries, set a limit? Maybe after you know this time in the day. I put it down. put up a limit is a good thing to monitor. With the iPhone you can set like app limits for certain things right to be like “oh I'm only gonna be on this app for an hour”. So I try to kind of have that dual approach of addressing the overarching cognitive distortions and things that might be leading to, you know, to using the smartphone so much while also having that practicality. As well to be like, okay, what is something we actually can do here? And then start building upon those smaller victories to then where hopefully a couple of months or however long down the line you start to look and you're like, hey, I've cut my smartphone usage in half or by two thirds and, you know, that's progress.

Yes, that makes complete sense. So I did want to go back to one thing that you said when you said meeting the client where they are. So I've seen that it's going to be hard to create one singular intervention that's like one size fits all type of thing, so I've seen a lot and through my last interview that the treatment really depends on then on the individual, and I just wanted to know your opinion on that like whether it depends on the individual or something like that.

B: Yeah, no, that is a fantastic question. And in my experience as a therapist, right, you come in, you go through your schooling and whatnot, and have an idea of how you would treat this issue or that issue. And so I think that there are good foundations laid down to maybe help someone. With me, with CBT, it's a good baseline, but some clients don't operate in that more, you know, like intellectual, ‘it's where you think about how you think’ and, you know, the brains just don't operate like that. They like more information and you know things like that. So I think though overall you come in with your modality, you come in with what you know, evidence-based things that have been proven to work with clients you know of similar issues, and yet every client, every case is unique. And what may work for one person might not work for someone else. And I even tell all my clients “hey we're gonna try this or you know here's here's something we're gonna you know kind of try to tackle your issues with here but if we get going through this and you find out hey this really isn't for me you know”. I let my clients know like tell me that because we can then go and try something else out right so I think meeting the client where they are and also accepting the fact you might have to get creative yourself a little bit as a therapist and maybe think of some different ways to approach it as opposed to just always going to what your textbook might have said in grad school. We might have to, you know, sidestep from this playbook here and there with certain, you know, other clients.

Okay, so in my research I did come across something called combination therapy where people combine many different treatment approaches, so do you use or have you used any other treatment approaches when treating smartphone addiction or internet use?

B: Yeah, that's a good question. For me, mainly I have stuck with Cognitive Behavioral Therapy. I always keep in mind you know trying to treat the whole person both the mind and the body. So, though, I mainly just stick with the CBT side of things and try to help the client come up with a solution and unique ways to cope.

Okay. So with the coping, like you said, unique ways to cope, is there anything that you've seen that works particularly well across the board?

B: Yeah, that's a good question. I would say, talking mind and body, getting exercise, getting outside, you know, taking a walk. Go on a 10-minute walk outside, right? Be in the real world instead of constantly looking at the screens, right? And just having the smartphone just dominates all of your attention. And that's something that I've found that has actually been a bit helpful, is just getting moving. I'd also like to implement just basic mindfulness techniques as well. Hey, I have five seconds of downtime. Let me pick up my phone. Well, maybe we can shift that in the sense of being like, hey, let me just recognize and again, be in the moment, be present where I'm at. And you know, just take in, okay, what am I feeling right now? Or what is going on around me? Or are there actual people around me that I can talk to? How often is it where you're hanging out with friends or family and there's a decent-sized group and then everyone at a certain point, the conversation dies for just a brief moment and then everyone pulls out their phones, right? Yeah, you go from talking and being present with each other to being in your own world on the screen. So I'd say just across the board no matter age or you know circumstance really I found that getting moving, getting active, you know outside like being with your real world is nice and something that has helped every or not everyone but you know the majority of clients I've seen with PSU. So like self-affirmation sometimes would also be something. Building general confidence and instilling that hope is something that I try to do with every client, no matter what issue they're coming in with. But also, just helping the client see that they do have agency, they do have the power to address their smartphone use, right? They're not helpless in this situation. So that's again a very generalized kind of overview thing that I do.

Okay, thank you. So I already asked you this previously about common characteristics you have observed in the patients and it's really like the not being happy, depression, the anxiety and them longing for a sense of community. So just wanted to reassure that those are the things that you see.

B: Yes, yeah. I think you hit the nail on the head right there, for sure.

Okay. So my next one is, what have you found to be most successful in treating patients dealing with internet addiction? This doesn't even have to be related to treatment approaches. It can include certain environment adjustments or session designs, or just in general, what do you think works the best?

B: I think a change of some sort in one's environment or routine has to occur because, you know, if you don't change anything, nothing's going to change. It sounds simple, right? But it is the truth. PSU like a lot of times sleep is quite affected in that people who struggle with it are a lot of times on their phone, right, you know, up to the moments where they go to sleep, right? So

I think an environment or routine change is absolutely essential when dealing with PSU. And a lot of the times that's just helping the client figure that out.

Okay. Yes. So my next question is, what are some ways that you think interventions or counseling programs treating problematic smartphone use could be improved as per your firsthand experience?

B: No, that's a good question. I feel the idea and a lot of times to speak of adolescence, the parents are either bringing the kid in for the counseling or there's some other adult outside authority that looks in the mirror and says, hey, I don't have an issue with the smartphone use, right? And so I don't know why my kid has it and they need to cut the usage down rate or entirely, and so I feel readjusting expectations and recognizing that this is a very cutting edge and new societal issue. And so I think even kind of bringing that group aspect, especially when a lot of the Problematic Smartphone Usage that I've experienced comes from some people as well, looking for that community, looking for that longing. Being in a room together talking about “how, hey, maybe my want for community is contributing to this”. And you find that in real life community right there, people that are going through the same stuff that you are.

So about the parents, I found in my research that Family Therapy is also really, really popular in this field. So do you think that families do play in an important role in the recovery process?

B: I think so. I think it can go one of two ways in the sense of if you have a supportive family around you, parents that are supportive in this that aren't going to shame you if you're not making the progress they think you should—but are they being supportive? Trying to help and find ways, trying to model in a good way their own smartphone usage? I think that could be a huge predictor of success. On the opposite side of things, if you have a parent or family member who is going to hound you or get on you if your smartphone usage hasn't been cut back to a level that you'd like or that they would like, I think that could bring in that shame aspect.

So that was the fourth and then this is the final. So just from your point of view, what are the most important things that we covered today and do you think there are any specific takeaways that I should take with me back to my research that are very important?

B: Yeah, that's a good summary type of question there. I would say just in general that this is still a cutting edge issue. So it is a moving type of target. And I would say as well that addressing not only the thoughts or the negative feelings with PSU is important as well as on the other end of the sword, so to speak, actually having some more practical routine changes in one's life to try to address the PSU. So, you know, going at the head while also going at your practical routine, I think is so crucial, even if it might take a little trial and error to figure out what exactly needs to be changed to help you lower the smartphone usage or internet or video games, whatever the case may be. Changing something is better than you know, just sitting sitting on your hands and hoping it changes.

Yes, that makes sense So, Is there something important that we did not cover or talk about that you think is worth mentioning relating to this topic?

B: I gotta say, you asked some good questions, man. I think I hit on just about everything on this topic right now that I'm thinking about it.

Thank you. So, I just had like a specific question. What does a typical session of CBT look like for you specifically?

B: Yeah, that's a good question. Sometimes you know I've already built a rapport up and it's like okay now we're getting ready to look a little bit and dig a little bit deeper right here. It's really just having the client first off talk about what is bothering them, what feelings they are having, and really naming what the feelings are. It's about getting a little more pinpoint on what the emotions are and then starting to unpack exactly "what is leading to these feelings around your life right now?". And "are there any cognitive distortions that are occurring from your thoughts leading to these negative feelings that you're having and ultimately your negative actions?" Just trying to get a healthier sense of thinking in general and helping the client see that possibility for change can happen and feelings do not last forever that negative emotions aren't something to run from. And so, yeah, just kind of addressing whatever specific thought or feeling that they would like to change.

Alright, yeah, and then the final question is, do you have any final thoughts on the topic or advice for building an intervention?

B: Meeting that client where they are, maybe putting a bit more of an emphasis on possibly group work as it comes to, you know, smartphone usage, PSU. And as we were talking about earlier, I think that, again, being able to almost attack that sense of community in there and, again, just recognize that, "hey, I'm not alone" in this very unique modern issue right here of PSU; that there's others around, that they are going through similar things to me, and I can utilize these people around me to hopefully lower my usage and see that I can go in a healthier way and actually have healthy, you know, relationships in my actual life, being in the present.

Well, those are all the questions that I have. Yeah, so thank you so much for providing such insightful answers.

B: Yeah, I appreciate you reaching out, man.

So I just want to say that your personal information will be stored securely and it won't be published in the final thing. Alright, thanks for the interview, you take care.

B: You too, thank you.

Appendix E
Interview Transcript of Therapist C

Repetitiveness, greetings, and any mention of personal information was omitted to ensure clarity and anonymity in the transcripts. Therapist C's responses are labeled with 'C:'

Okay, so I reached out to you because I saw in your Psychology Today profile that you have experience in treating teens and it listed internet addiction as an expertise of yours. But essentially this interview will be in five phases. So the first one is the introductory questions, the second is preliminary, the third is the transition questions, the fourth is the main questions, and then the fifth is the concluding questions. But yes, I'm doing a project right now in which I'm trying to discover the situation of internet addiction or smartphone addiction in North Texas for teens specifically.

C: Awesome. That's a good topic. Very trending right now.

So the first question I have for you is, please introduce yourself, specifically your main work, your years of work experience and your job title.

C: I'm an LPC Associate or a Licensed Professional Counselor Associate. My experience as LPC has been three years, but I already have experience as a mentor for addicted people, and older people. Yeah. And, and I'm working with.

Okay. So do you think you do more of individual counseling or, what's your main type of counseling that you do?

C: Family therapy, because parents bring me the kids. So I try to assess what is happening. Most of the time it's probably with the phone or internal problems in the family.

Okay. Please share any experiences you have in treating internet addiction or smartphone addiction.

C: I told you parents bring me the kids so I began to assess what is happening. It's because parents give a phone to an eight, nine-year-old kid but they didn't set parental controls. So the kid had this open phone to the internet, to the world by themselves and they don't have a control over their actions because that's why parents are there—to help kids to regulate, to control what they're doing. So they have this open weapon to go to the world outside. So they find a lot of bad stuff. For example, new people, they learn new things that they didn't have to like drugs. So I have heard a lot of bad stuff about what kids do with a phone.

So are you saying that it's essential for the parents to be a part of this journey for the kids to learn?

C: Of course.

My next question is, have you ever participated in research, testing, and intervention related to this topic?

C: Not yet, No.

Okay. So my next question is, have you worked specifically with teenagers or adolescents rather than younger kids on this problem? And how is it different?

C: Yes, I have worked with some of them.

Do you think it's different than if you were to treat younger kids or is it widely the same?

C: It's different because of life. Kids are different than teenagers. Teenagers are more independent and are kind of rebellious because they fight for their independence, so they're harder to work with. Parents cannot tell them anything, they're going to be defiant, but kids are more obedient or try to do what parents say, so that could be the difference.

Okay, and whenever you get these clients, these families, the kids, are there any certain symptoms or experiences that you see common in all of them? And could you describe them?

C: Yes. Well, when they spend excessive amounts in their phones, they often don't do homework; they don't take a shower; they miss the face-to-face social interaction with family, with friends; they become agitated, irritable, and anxious; they have sleep problems because obviously they are on the phone; they don't have like a curfew with the phone, so they don't have control—they can be on the phone all night; they have poor academic performance too. So that's why parents notice, “oh, they are not doing good in school, they are procrastinating on homework”. “They're neglecting the responsibilities at home”, like taking the trash. So kids, and teenagers tell, oh, we're going to do it later. And they never take the trash out or the dogs out. Uh, physical issues too. Eye problems, neck problems, headaches, fingers problems, mood change, I already told you—the irritability, they have problem with the mood. They have problem with hygiene. They don't shower, grooming, or dress appropriately. They engage in risky behaviors; preoccupation for having the phone with them all the time, checking the notifications, the alarms, the games. Yeah. Poor time management too, because they want to be on the phone so they don't do the things they're supposed to do.

Yes, that makes sense. These are consistent with the things I've gathered from the other therapists too. Usually, they see anxiety a lot or like sometimes even depression.

C: Yeah, when they isolate, they don't have friends, so they're gonna be depressed. Yeah, they have lack of motivation, lack of energy.

Okay, thank you for that. So my next question is, what specific treatment approaches do you feel are best when treating smartphone addiction for adolescents?

C: Every case is special, so I like to do IFS, internal family systems, because sometimes, this is a kind of addiction, right? So if they have problems in the house or if parents have

problems—domestic violence—the kid wants to escape in the phone. So the first thing I do is assess the family system and what is happening inside of the family. After, I do assessments too. There are some assessments to see what the grade of addiction of the person is, and then I begin my treatment with CBT—Cognitive Behavioral Therapy

So you go from IFS to CBT?

C: Yeah. First of all, I said how family is working. So after that, I begin to do my treatment with CBT. “Ok, what the teenager is thinking, why the person is obsessed with the phone”. The other thing is the FOMO—Fear Of Missing Out. I work on what is happening—is the teenager comparing himself with other people, does he want to escape? I work on the thoughts, negative thoughts about the use of the phone. The other thing that I teach them is mindfulness, like to be aware of their surroundings, and to be present. I encourage them to have family time. Like, okay, you are in the phone one, two hours, but when dad is coming from work, be there, be present. That's mindfulness. I teach them some tools how to ground themselves. I tell them to “Get out of the cloud of the phone and come to real life and enjoy with family, enjoy with siblings, go outside, play soccer with the brothers or sisters or help the sisters with the homework…be involved with people”. So that's mindfulness—be aware of what is happening with the addiction, and what addiction is doing to them. Working those thoughts, negative thoughts, challenge those thoughts, replace them.

And that's probably where Cognitive Behavioral Therapy comes in?

C: Yes, but mainly mindfulness. Mindfulness is DBT. Yeah, it's a multidisciplinary approach, you cannot use just one thing. And depends on the client, you see, okay, what I can use, what he likes. So I can adapt.

So did you say, there's CBT and then for mindfulness, did you say DBT?

C: DBT. Dialectic behavioral therapy.

How does it differ from CBT?

C: Yeah, this is more focused on changing routines and behaviors. CBT changes your thoughts about stuff. But DBT is, “okay, now that I changed my thoughts, I'm going to change my behaviors because I understood why I'm doing this”. So now I'm doing routines, now I'm doing new things. I change my behavior.

Hmm, Okay. That makes sense. Also, when I was researching, I found something called combination therapy, where they put many different approaches together. Like some people say CBT and Motivational Interviewing, they'll do those two together and then that would be their session for the day. Would you say that combination therapy is helpful or do you use it in your sessions?

C: Yeah. Motivational Interviewing is good. Yeah, it's questions. “When was the time when it was for you when it was the time when you were not using the phone so much?” “What was different

about it?" Yeah, you use that because CBT is changing your thoughts. So you ask, the person, "okay, you see all the time you could do it, you didn't depend on your phone—what is different now?" So yeah, change your thoughts.

So, okay Basically CBT aims to change your thoughts and then Motivational Interviewing is just part of that part of that

C: We use a lot of questions. "What was different before when you were not an addict?" "How you did you do it back in the time?" "How you can do it again?" Yeah, it's using questions. It's an interview. Cognitive Behavioral is like "Oh, I don't feel worthy". So we examine the core beliefs, what the person is talking, and maybe something happened in the past. So you like go deeper with their past experience and motivation, and MI is like—"How you can do it now?" "Because you did it before you could do it." You use a lot of approaches depending on how the session goes. And sometimes you have a plan, and then other things happen inside. Sometimes teenagers come sad. Something happened in the school, and they don't want to talk about the phones. They want to talk about what happened in the school.

So my next question is, other than these ones that you mentioned, are there any other approaches that you use in your therapy sessions? Mainly?

C: The assessments. There are scales, and assessments that I like to do. I ask always questions, self-report questions like, "how are you doing?" "How long have you been doing it?" So I like to do an assessment every session, how they have used the coping skills, what has changed.

So these assessments, is it just like you measuring how they're doing every time, if they're doing better?

C: Yeah. They are called the Smartphone Addiction Scale, the Internet Addiction Scale, and Adolescent Smartphone Addiction Scale.

So you give them, are these like quizzes almost?

C: Yeah, so yeah, I like to assess every other session, I assess how they're doing. I do another, that is called ACE, adverse childhood experiences, but I do that more at the beginning. Adverse childhood experiences, I ask about maybe there are addictions in the family, if there was abuse, sexual abuse, molestation, domestic violence, deaths, tragic deaths, trauma. Adverse childhood experiences is a good thing to review, it's so good because you can have a picture of the family.

So do you think that smartphone addiction is not as much surface level, but it may be rooted deeper than just a smartphone addiction? Perhaps it could be something bigger?

C: Yeah. Yeah there is always something behind that addiction. That's why I like to go deeper with the family. What is happening in the family? For example, could be an absent parent. Father is working, he comes home, he watches TV. So he doesn't see his surrounding world with the kids. He doesn't ask questions. So it's a parent, but he's absent. Or a lot of domestic

violence. So the teenagers want to escape in the phone. So it's just not the addiction, it's what is happening inside the house. Because this takes a lot from parents. And I have to work with the parents, too. How they can support the children, and what they're gonna do with that. It is called parental guidance. I have to educate the parents about the importance of modeling healthy smartphone use. Maybe parents are on the phone all the time. So they have to have clear rules and boundaries. For example, if we go to eat dinner, nobody can have the phone. So that has to work as a team, as a family. It's not just the problem of the teenager because they, okay, they don't use the phone, but dad and mom are on the phone all the time. So the parents have to model. They need to be educated on how to manage screen time. Another thing that I teach the parents, I educate the parents is about control, parental control. They don't know anything about it. So I tell them, these are the parental controls. There are free apps and there are paid ones. And the other thing is that, educating the parents with a contract. You know, the phone belongs to the parents. So the kids are going to use it under these rules, and everybody has to sign. The phone is a privilege. It doesn't belong to the teen. Parents are paying.

Okay. So I also heard something about treatment modalities. And I wanted to ask, are there any specific modalities that you use within like Cognitive Behavioral Therapy in general?

C: Yeah. And those are what I told you, the CBT, DBT, MI, rotational interview, holistic approach, psychoeducation to the parents, set goals and objectives for what they want to do.

Oh, so essentially Goal-Oriented?

C: Yes, goals and objectives.

Okay, and on your website, you mentioned something about a Person-Centered Approach. And I saw with my other interviews, it's been pretty consistent that every client is different, and for every client you have to try to understand them. Could you tell me more about person-centered therapy?

C: So not everybody is the same, so I focus more on the person in the feelings, in the personality—I want to establish a rapport with them, a trust rapport that they can trust me and that I can trust them. I try to be in this relationship with them. I'm not interested in doing this specific approach, no, I'm going with the flow. How are they feeling? I create an environment that is not judgmental. But that's person-centered, I just care about my client, and I'm gonna be an advocate for that person. Okay, okay. Sometimes I don't want the parents. Sometimes there are difficult parents.

So back to the family-centered therapy that you were talking about. I've seen that all of my therapists so far have said that families are important in this role. And now you said it's because of parental control, first of all. The background of the family, like what they are doing that's making the children do this in the first place. Do you think that's basically why the parents are needed in this process?

C: Yeah, kids need the support. Parental guidance and support. Because one of the things is that teenagers haven't completely formed the prefrontal cortex. Teenagers do high-risk things

because they don't have part of their brain. It's forming. So sometimes they cannot self-regulate. They need somebody to help them. I see more in females. They are more dysregulating, crying, and hormones are not good. So it's going to be helpful for them to have a mother who helps them to self-regulate. They cannot regulate themselves. So they need the parents. Parents need to be involved. I hear some parents “Why they don't obey me, why they don't do things?” I say, well, because they don't have this part of the brain they're really crazy because they're forming the prefrontal cortex, the executive part of the brain. The executive that tells you don't do that or do that. So if you don't have that boss in your brain, you cannot control yourself. So you need your partner, your teacher, an authoritative figure to help you, to guide you. Because you cannot do it by yourself.

Okay. The next thing that I have is, what have you found to be most successful in treating patients with smartphone addiction? So this can include changing the environment or just your take on the session. Is there anything you've seen that works across all your clients who have smartphone addiction?

C: I encourage self-reflection. Identify triggers, patterns when they use the phone, underlying emotions, and needs. I encourage them to do healthy coping activities to replace excessive smartphone use, such as hobbies, physical exercise, being involved in sports, and all that stuff. Socializing, because most of the time they're isolating themselves they don't have friends and maybe it's because they don't know how to make friends, or they have social anxiety. So that's why this is the underlying thing behind that some kind of people have social anxiety they don't know how to relate with other people, so that is why they are on their phones. Spending time in nature, like going outside, hikes, there a lot of parks to go walk in trails. Being in groups, being in groups in the school. There are a lot of groups.

So you mentioned the coping strategies, right? Do you think these play a really important role in recovery, like getting over the smartphone addiction?

C: Yeah, that's the way they're gonna deal with addiction. It is what they're gonna do instead of being on the phone. These are, what I told you, the mindfulness, meditation, reflection, and stress management techniques. There is sometimes a lot of stuff to do in the school, so the kids are stressed because they have a lot of homework, so they go to the phone—they procrastinate. So I teach progressive muscle relaxation exercises, and I recommend yoga. I create a safe place for them in the mind. I guide all these exercises here. I teach about time management skills. These are the coping skills, like how to create a schedule of breaking tasks in a smaller manageable step. For example, you can be on the phone but then set alarms. “I'm gonna spend one hour on the phone but then I'm gonna spend one hour 45 minutes on the homework. I'm gonna do 30 minutes my chores at home”. So we try to see why you need to do at home what you need to do at school and then put it in a schedule. I teach them how to develop problem-solving skills. Identifying problems, and brainstorming how to solve the problems. What could be the solution to the problems? Another thing is assertive communication. That's my favorite because sometimes they are resentful with their parents or with the teacher, with friends and they don't know how to communicate that. So, as with all addictions, you want to escape. You want to deal with your pain and disappointment with your addiction instead of talking. So that's another coping skill, assertive communication.

Okay, and another question is, what are some ways that these counseling programs or counseling sessions treating smartphone addiction could be improved as per your experience? What's something that all of these smartphone addiction centers could do to make it better?

C: I think to educate therapists in the area of the Internet. The area of this internet, all this is growing. And many therapists, they don't have the knowledge. For example, I told you about the parental control. I didn't know nothing about that, so I began to research, okay, what is there? What are the applications for the phones, right? So we are not educated in the university, or we don't receive any CE, continued education about that. Technology is advancing for us. So I think that we can grow in our knowledge of what is happening. We don't know what's happening. We need more training.

Oh, okay. So, just to wrap this up, do you have any final thoughts on the topic or advice, or what are the most important things that we covered today?

C: Yeah. Teenagers or people who are struggling with this addiction need support, peer support groups and therapy groups to provide that supportive environment, maybe in the school. Like, you know there should be groups in a school who support them. It's good for the people who are struggling with addiction. And as a therapist, I continue to evaluate what is working, what is not working, what is effective, what other things I could use. I sometimes bring the parents, okay, is the treatment working or not working, what more we can do? We are open to observations.

Yes, well thank you so much. Thank you so much for this interview. So, the interview is done. Your information will be kept anonymous in the paper.

C: Okay, thank you for reaching out.

Appendix F
Figures of Likert-type Data

Figure F1

Likert-type data graph: I often find myself staying on my smartphone longer than I intended.

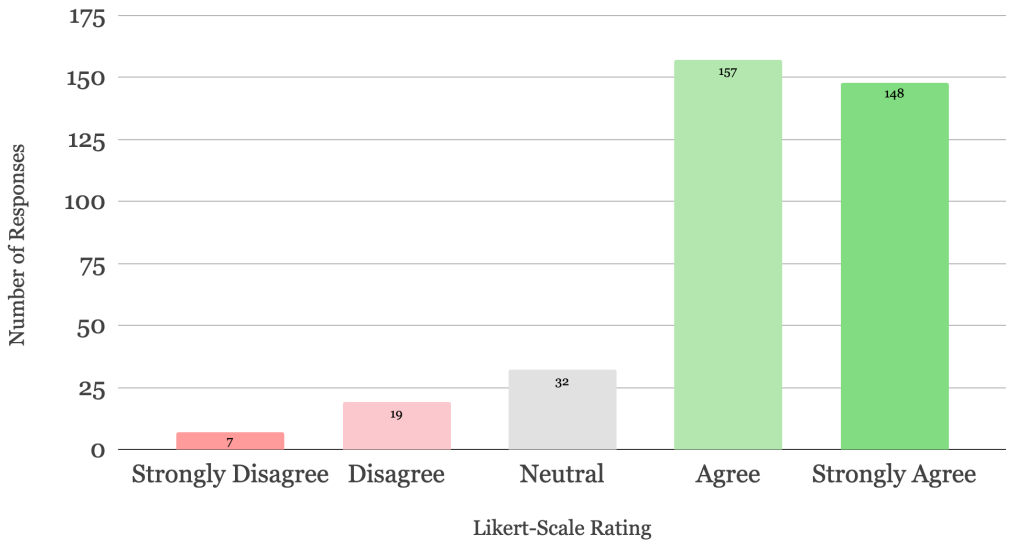

Figure F2

Likert-type data graph: I am almost constantly on my smartphone.

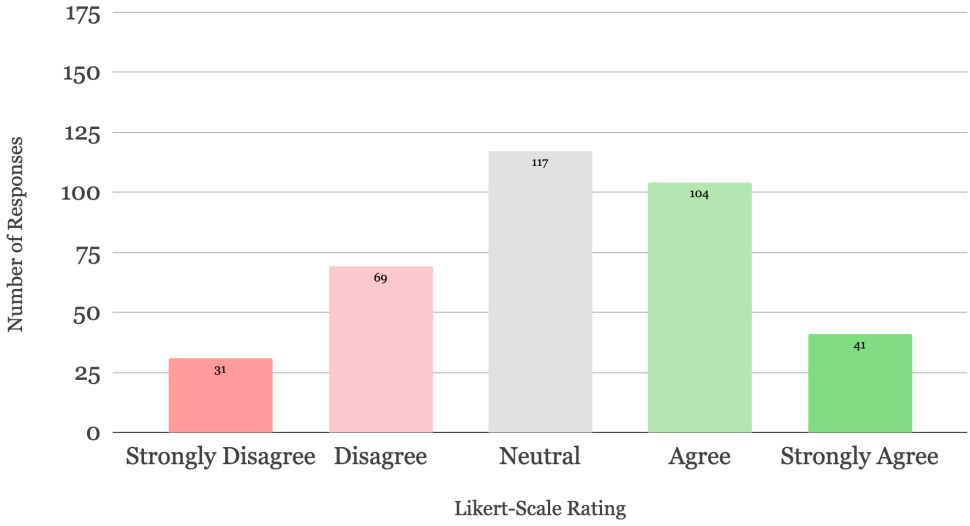

Figure F3

Likert-type data graph: I often feel difficulty in abstaining from smartphone use.

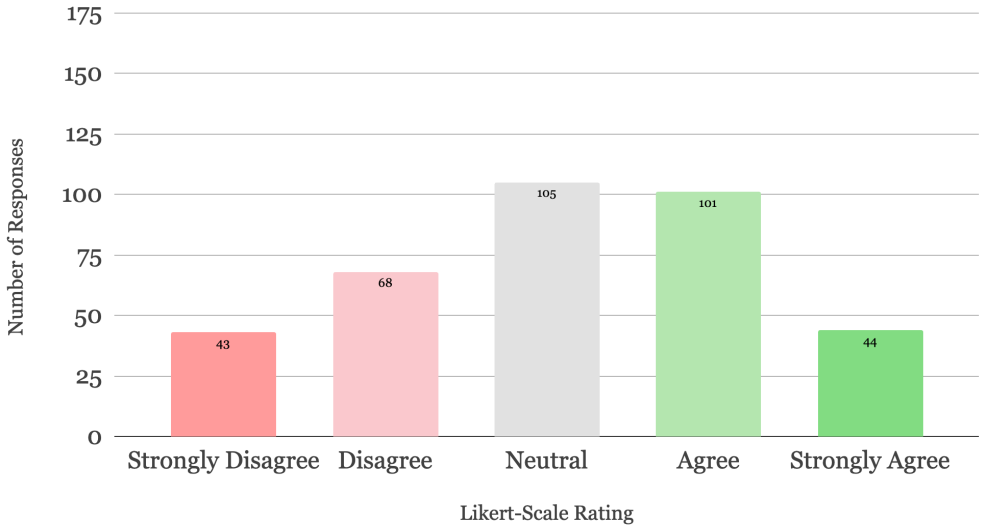

Figure F4

Likert-type data graph: I often lose sleep due to late-night smartphone use.

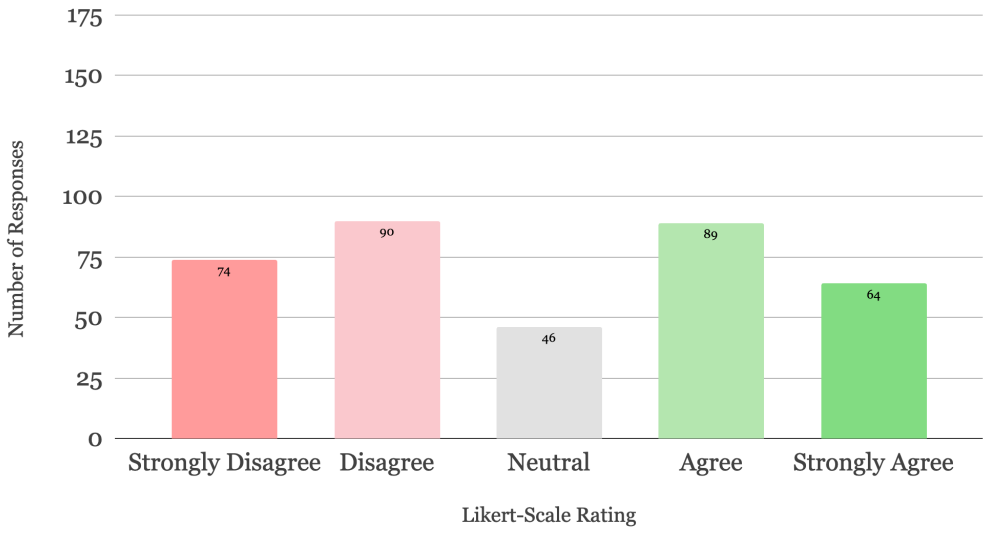

Figure F5

Likert-type data graph: I often feel pleasure from smartphone use.

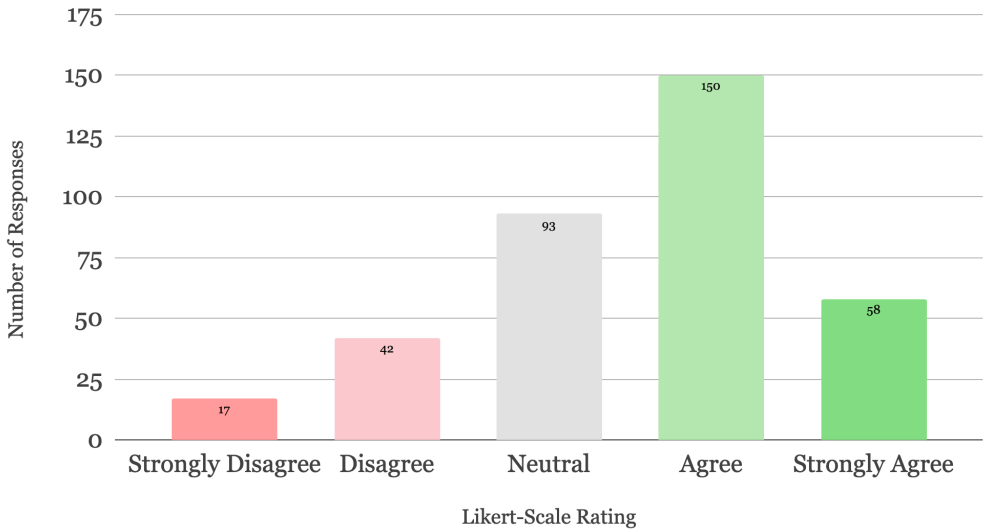

Figure F6

Likert-type data graph: I often feel bound to my smartphone.

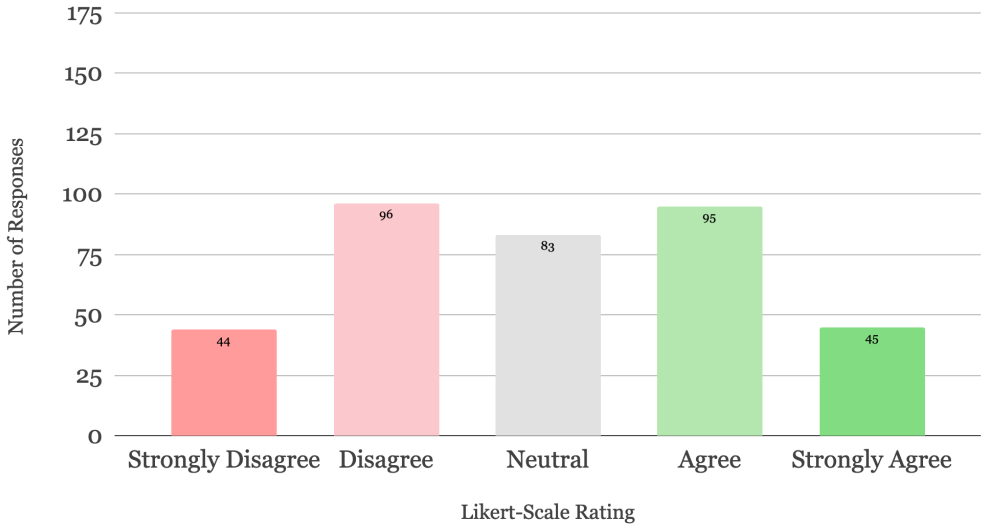

Figure F7

Likert-type data graph: I often feel discomfort when my smartphone is not present with me.