Effect of Smartphone Addiction on The Life Satisfaction and Interpersonal Relationships of Prospective Teachers

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Abstract

The purpose of this study was to investigate the impact of smartphone addiction among prospective teachers at the university level. The study was quantitative. The population of the research comprised all prospective teachers of public sector universities in Lahore. The study's sample consisted of 400 prospective teachers from Lahore's public universities. Kwon et al.'s Smartphone Addiction Scale was used by the researcher (2013), as well as Diener et al.'s Life Satisfaction Scale (1995). Descriptive and inferential statistics were applied to examine the information. The study's findings revealed that cell phone addiction essentially affects prospective teachers' life satisfaction and interpersonal relationships. It was clear from the findings that there was a huge distinction among male and female perspective teachers' discernments concerning smartphone addiction, interpersonal relationships, and life satisfaction whereas prospective teachers' perceptions of smartphone addiction, interpersonal relationships, and life satisfaction were found to be unaffected by their qualifications. The current study's data were analyzed with an independent samples t-test and one-way ANOVA to determine how prospective teachers' perceptions differed based on the demographic variables they selected based on gender and qualification. It is recommended to develop and implement educational programs within teacher training institutions to raise awareness about the potential consequences of smartphone addiction on life satisfaction. It may also be recommended to incorporate digital literacy and mindfulness training into the curriculum for prospective teachers. It is recommended that to distract students' attention, they may be encouraged to start productive hobbies such as lectures,

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sports, and workshops. The excessive use of smartphone addiction impacted mood disorders. In this regard, their interaction, changes in mood, conflicts, and so on are all caused by smartphones; so, it may be beneficial to raise awareness concerning the negative and good effects of smartphone utilization and to engage in some group activities.

Keywords: smartphone, prospective, communicate, addiction, satisfaction

Introduction

The progression of life has gone through a mind-boggling change, particularly because of the mechanical advancements we have encountered over the last hundred years. In this context, phones, and specifically smartphones, can also be considered. Because of the rapid advancements in technology, phones, which were originally intended for use as a means of communication, have begun to be used in other contexts. Smartphones, in particular, have evolved into much more than just communication tools. The development of information and communication technology, or ICT for short has significantly altered the world, particularly in terms of connecting people, making it possible to communicate without interruption, and making it simple to access information. The convergence of correspondence innovation, computerized innovation, and man-made reasoning has obscured the lines between the physical, computerized, and natural circles, which by and large has prompted an improvement in personal satisfaction for the vast majority (Aravind et al., 2019). The effect of these advancements has become exceptionally significant because mechanical gadgets or devices like handheld correspondence and amusement gadgets, cell phones (comprehensive of cell phones), and PCs have without a doubt become essential pieces of our regular routines (Nizar et al., 2019).

Adverse cell phone use may result in the resolution of particular social and mental disorders. Because of their devotion to their smartphones, young individuals in this generation believe they cannot survive without them. Understudies will frequently ride the web and play web-based games as a manner of calming their minds from the stress that they are experiencing in terms of escaping from troubles that they receive from their fellow students or their daily schedule. Students used to rely on computers to deal with stress, but in today's environment, students rely more on cell phones due to internet access. However, using a mobile phone for an extended period or continuously can have an impact on an individual's welfare; the person may have trouble sleeping, and frequent texts and calls make it difficult for learners to stay focused on and complete their assignments, which will harm their marks (Abu-Shanab, 2015). Yo et al. (2016) discovered that risky mobile phone use among children and adolescents has an impact on their sense of personal satisfaction, life gratification, and affluence. According to Nguyen et al. (2020), excessive cell phone use causes negative emotions such as despair and dissatisfaction which have been found to have an adverse correlation with satisfaction with life and mental affluence.

Objectives of the Study

1. To explore prospective teachers' opinions of life satisfaction.
2. To evaluate the impact of smartphone addiction on the life satisfaction of prospective teachers.
3. To explore Prospective teachers' perceptions of their smartphone addiction.

4. To examine Prospective teachers' perceptions of their interpersonal interactions.
5. To evaluate the influence of smartphone addiction on prospective teachers' interpersonal interactions.

Research Questions
1. How do prospective teachers perceive a sense of life satisfaction?
2. Does smartphone addiction affect life satisfaction in prospective teachers?
3. What are prospective teachers' attitudes toward their smartphone addiction?
4. How do prospective teachers see their interpersonal relationships?
5. Does smartphone addiction affect prospective teachers' interpersonal relationships?

Significance of the Study
Prospective teachers are very important because they are the future instructors who will affect the next generation. Understanding how their smartphone addiction affects their life satisfaction can offer insight into potential obstacles they may have in preserving work-life balance, effective teaching tactics, and personal well-being. This awareness has the potential to contribute to the development of preventive strategies and interventions aimed at fostering healthy smartphone usage habits. This research could shed light on the association between smartphone addiction and life happiness among prospective teachers. Researchers can contribute to a better understanding of how excessive smartphone use affects people's overall sense of happiness and well-being by investigating this link. Understanding the consequences of cell phones on interpersonal interactions is critical in an age when smartphones have become a fundamental part of daily life. Prospective teachers, as future educators, play an important part in molding the next generation, thus it's critical to look into how smartphone addiction affects their capacity to connect with pupils, colleagues, and even their own families.

Review of Literature
Phones have made the young so occupied with their development that they have transformed into a brand name for the energetic age (Satici and Deniz, 2020). The technology-savvy generation is so reliant on the development of contact screen technology that, with the availability of the internet every day, applications for mobile phones can be used at any time with just a single touch. The issues that may be associated with portable enslavement have been mentioned by experts during a conversation that took place at the annual gathering of the American Psychiatric Association (Rosen, 2011). A clinician at California State College added to the issues related to portable habits. Rosen's continuous exploration of what innovation means for teenagers found that youngsters who invested a ton of energy utilizing innovation, for example, playing computer games and utilizing virtual entertainment on the web, encountered side effects like stomachaches, sleep deprivation, tension, and melancholy. Aside from that, these young adults are thought to be more likely to act narcissistically because they use social media a lot. They are likewise showing withdrawn character turmoil, neurosis, and tension (Rosen, 2011).

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Smart Phone Addiction

Cell phones have arisen as an inexorably famous innovation that is used by all age's gatherings and across landmasses. Cell phones have started a mechanical transformation, and they are presently an indispensable piece of our regular routines which a great many people can't survive without. Individuals presently habitually utilize their cell phones to watch motion pictures, pay attention to music, and stare at TV programs whenever possible. What's more, wellness ways of life by utilizing a cell phone have additionally turned into the most recent pattern. Individuals who lead an active lifestyle use their phones to track their health condition, such as the number of steps they have taken, the length of time they have walked, and the length of steps of stairs they have climbed. However, while cell phones have made our lives simpler, they may additionally have negative consequences. Illustration of the adverse consequence of cell phones that has been accounted for includes the disturbance of social collaborations, lack of sleep, the unfortunate balance between fun and serious activities, and absence of consideration at work (Lopez-Fernandez et al., 2014).

As a general rule, there are two sorts of compulsion otherwise called reliance. The first type of addiction is known as behavioral dependency and the second step is referred to as substance dependence (Yao et al., 2016). Cell phone reliance has a place in innovation habits, which is a typical social compulsion. It is portrayed by the tedious utilization of cell phones to participate in

Intelligent ways of behaving that are counterproductive to well-being (Lopez-Fernandez et al., 2014). According to Billieux (2012), mobile phone enslavement is associated with methods of acting that include a lack of control over one's cell phone usage, resulting in many social, behavioral, and mental concerns in their daily routine. Technology-related addictions, also known as non-chemical addictions, are commonly categorized as "behavioral dependency." Despite the most recent scientific findings, some academics argue that excessive usage of phones is motivated by attempts to avoid fundamental behavioral or interpersonal problems, according to Volungis, Kalpidou, and Popores (2020). Alongside that Satici, and Deniz (2020) added that medication and conduct addictions have indistinguishable center standards as both reason unreasonable propensities and a buzz which can prompt resilience and withdrawal. This dependence can make an individual vibe terrible when they are not doing that favored action, and they have the desire to require a greater amount of what to obtain the indistinguishable buzz. In many cases, a person is considered to have an addiction if, while being aware of the negative consequences, they lose control or self-discipline (Jee et al., 2008).

Problematic Smartphone Usage

Excessive cell phone use has been defined as a practice that compromises daily functioning in terms of effectiveness, public connections, and physical welfare, or negatively affects well-being (Mustafaoglu et al., 2021). Despite the obvious benefits of telephones, several studies have found correlations between problematic use and stress (Cao et al., 2018; Park et al., 2018). In some cases, the concept that cell phones might cause anxiety, overwhelm, and weariness has been labeled 'techno stress' or 'techno exhaustion' (Cao et al., 2018).

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Life Satisfaction
Life fulfillment is considered a central sign of emotional prosperity. How you feel about your ongoing day-to-day environment is depicted as the amount of everything you think and sentiments about your ongoing circumstance (Diener et al., 1999). It is a fundamental measurement for checking how cheerful people are in their environmental elements. Life fulfillment has been demonstrated to be adversely connected to SA in the vast majority of the earlier examinations. A person's social and economic circumstances, as well as their physical and mental health, all have an impact on their level of life satisfaction. Individual prosperity is impacted fundamentally by every single one of these areas. At the point when an individual participates in a few obligations in various spaces, it is plausible that life fulfillment will decline. Research on understudies has been scanty, notwithstanding a developing group of information on what makes individuals cheerful or miserable in their lives.
As a general rule, as per the discoveries of a trial done by Volungis, Kalpidou, and Popores (2020) graduate understudies' satisfaction didn't contrast significantly from each other, even though different individuals in their lives had fluctuating effects over them. Males are happier than females when they read, listen to music, or watch sports or entertainment. Women enjoy hosting and attending parties, meeting new people, and participating in activities with them more than any additional action. Female students outperformed male students in controlling their emotions, embracing obstacles, avoiding circumstances, and conquering issues that could reduce their life satisfaction, according to Misra and Castillo (2004). Women's ability to communicate with friends and family and to maintain personal relationships was also hampered by having children and becoming mothers. Since time is restricted, youngsters might need additional time than recently committed to different exercises like mingling (Volungis, Kalpidou, and Popores, 2020).

Interpersonal Relationships
A huge increment has happened in the investigation of prosperity during the past few years. At the point when Diener (2013) formalized emotional prosperity as an idea, it was perhaps one of the main crossroads throughout the entire existence of prosperity science. This gave a typical plan to prosperity specialists, which is still being used today by researchers and policymakers. Close-to-home happiness (counting hopeful and skeptical effects) and lifetime bliss, as per Diener (2013), are two parts of emotional prosperity. There is one's very own psychological evaluation of life that is known as life fulfillment (Shin and Johnson, 1978). The way that people's emotional standards for life's joy are utilized instead of outside circumstances is huge since it shows how one feels about one's life (Diener, 2013).
To examine the question of life fulfillment, Diener and his colleagues devised the five-item Fulfillment with Life Scale, a lifetime bliss sum (Diener et al., 1985). When combined with the enormous advancement in dynamic success research, the SWLS has achieved widespread acceptance all over the world, with perspectives and collaborations taking place in countries from country to country. Diener et al. (2013) found that both the mean levels and associates of the SWLS varied across nations, as did both the mean levels and associates of the SWLS. Tragically, a few SWLS parts appear to work differently in different countries too. At the point when this article was composed, it had more than 19,000 references, making it the most broadly referenced work in the field (Park and Lee, 2012).

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Related Research

Researchers found that people who experienced positive feelings revealed elevated levels of fulfillment, not because they were living it up, but additionally because they had assembled the assets that they expected to adapt to the hardships of life. The outcomes of this study also show that happiness is more than merely a collection of mixed sentiments that grow throughout time. Although pleasant emotions are linked to life satisfaction, they ultimately hinge on an individual's capacity for resilience. It was likewise shown that feeling better, as opposed to keeping away from undesirable feelings, was related to an expansion in life fulfillment. Diener and Diener (1995) concentrated their examination on existence fulfillment in different societies all around the globe. One of the goals of their research was to describe how satisfied college students around the world were with their lives. They assessed respondents' feelings on a seven-point Likert scale in their satisfaction surveys.

To survey mental prosperity in their examination, Bolin and Dodder (2001) used the influence balance scale. This study examined how it might be used with college students, despite its usual use with seniors. The review included 380 college understudies who chose indiscriminately humanism early on in their courses. There were 55% women and 45% men in the sample. The majority of students, 79%, were between the ages of 18 and 20, and fifty percent of them lived in residence halls. A few reviews uncovered that understudies encountered a range of feelings at different places in their scholarly professions. A lot of people said that they were in a high position but also depressed or that they were doing something but were restless. At this point in their lives, according to the study's findings, people may have opinions that are completely opposed to one another. It is viewed as such because teens and young adults are going through a period of huge change. Because they left the well-being of their lives as a youngster, they may not be viewed as grown-ups right now in their life. This could cause a lot of conflict in emotions, and it is speculated that this may be the cause of the contradiction in discernment.

The findings indicate that as college students demanded more knowledge, so did life satisfaction. Understudies who valued scholarly challenges were more joyful than those who didn't. People who scored exceptionally high on a proportion of stress would have lower life fulfillment, as per Paolini et al (2006), who led a writing survey to help their speculation. Stresses over the future were likewise anticipated to be related to an absence of fulfillment. A total of 160 university learners from an institution in the southwest took part. Members ranging in age from 18 to 65 addressed various events. Their average age was 25.1 years old. In this review, specialists utilized overviews to survey their members' degrees of stress and life fulfillment. The studies were picked aimlessly. They found the results that were expected. Stress-inclined people had lower levels of life fulfillment than less stressed individuals. The findings of the researchers indicate those individuals who worry more are less content with their lives; thus diminishing apprehension for individuals who are less happy with life. Besides, it was found that monetary worries were a critical supporter of the change in the connection between stress and life fulfillment too.

With cell phones, people can communicate with others, get information, be energized, and

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accomplish their everyday existence more helpfully and proficiently (Santhi and Rajesh, 2020). Accordingly, cell phone reception is quickly developing all over the planet The wireless immersion rate, or the number of supporters per 100 persons, in Oman was 190.29 percent at the end of the fourth quarter of 2012, according to the Broadcast Communications Administrative Power. Even though cell phone utilization is ascending among all monetary and age units, school students are one of the main objective crowds and the biggest client unit for cell phone public administrations (Wali and Omaid, 2020).

Research Methodology
Research Design
A quantitative research approach was employed in the study. The Causal-comparative technique was utilized in the research study to investigate the cause and impact of smartphone addiction on the life skills and interpersonal relationships of university-level Prospective teachers. The survey was conducted to obtain information. A survey with a cross-sectional design was employed to collect data for the study.

Population
The study's population included all prospective teachers from Lahore's public sector universities. Public sector universities in Lahore are seven in number. University of the Punjab, Government College Lahore, University of Education, University of Engineering & Technology, Lahore College for Women University, Information Technology University of the Punjab, and The University of Home Economics Lahore.

Sample and Sampling Technique
The population was sampled using a multistage random sampling process. Multistage sampling, according to Mills et al. (2019), can be performed in phases, involving the selection of groups within clusters. According to Mills et al. (2019), if the population sample size is around 2000, 20% of the population must be sampled. As a result, 400 male and female prospective teachers (Male=120 and Female=280) were chosen using a multistage random selection technique based on the respondents' availability.

Stage I
At stage I, two public sector universities (University of the Punjab Lahore and University of Education Lahore) having coeducation and Education Departments were the population of the study.

Stage II
At stage II, B.Ed (Hons) semester I, MA Education semester I, and M.Phil Education semester I were considered as clusters, and all the students therein were part of the sample.

Table 1

Respondents' Demographic Information

Demographics	F	%
Program		
B.Ed. (Hons)	209	52.3
M.A. Education	06	1.5
M.Phil Education	185	46.3

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Gender		
Male	120	30
Female	280	70

Research Instrument
The instruments were divided into two sections. In the first section, information about the sample's demographic characteristics was gathered. The variables were all assessed in the second section. Two scales were utilized to gather information in the study.

Data Collection
The instrument was completed, and data was gathered by the researcher. The analyst gathered the information by visiting Universities. To ensure deliberate, informed support and a direct moral review, an early-on letter portraying the reason for the exploration and pronouncing that the information would be utilized with the end goal of examination and that respondent privacy would be completely ensured was encased with the survey, guaranteeing members that they were allowed to decline to partake in the exploration. What's more, in an unassuming and thoughtful way, the specialist guaranteed that no information would be spilled or imparted to any other person.

Data Analysis
Smartphone Addiction Scale (SPAS-Form)
Form-SPA was employed to assess prospective teacher attitudes toward SPA. The researcher customized the Smartphone Addiction Scale created by Kwon et al. (2013) to measure the addicting behavior of smartphones. It has six components and 33 elements that were found by factor analysis. Daily-life disruption, pleasant excitement, abandonment, cyberspace-oriented relationships, excessive use, and resilience were the six factors. The study used a 33-item, five-point Likert-type rating scale. Likert scale responses ranged from strongly agree (recorded as 1) to strongly disagree (recorded as 5). "I often miss scheduled tasks due to smartphone use," for example. "I'm tired and sleep-deprived as a consequence of my extensive smartphone use." The instrument was 89 percent reliable.

Life Satisfaction Scale (Form-LSS)
The Satisfaction with Life Scale, which the researcher developed after reviewing the available literature, was utilized by the researcher to measure life satisfaction. It has 23 factor-analyzed items in addition to two subscales. The two subscales were life fulfillment and life disappointment. A five-point, 23-item Likert-type rating scale was used in the study. A five-point Likert-type rating scale ranged from strongly agreeing (coded as 1) to strongly disagreeing (coded as 5)."I could be delighted if my life remained on the path that it currently resides on," for example. "I will not be completely happy with my way of life until I attain specific ambitions."

Interpersonal Relationship Scale (Form IRS)
The researcher employed an interpersonal relationship scale established after studying the literature to assess the interpersonal relationship. It consists of five different subscales and

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27 items determined using component analysis. Trust, collaboration, open communication, an excellent attitude, and managing conflicts were the five subscales. In the review, a 27-thing, five-point Likert-type rating scale was utilized. A Likert-type rating scale of five points was used, with values ranging from strongly agree (recorded as 1) to strongly disagree (recorded as 5). Examples of things include "People want to have their thoughts and proposals with me while receiving my opinion since they believe my judgments". "It annoys me whenever my group fails to employ appropriate resolution of conflicts tactics." The instrument's reliability was .75.

Research Question 1
How do Perspective Teachers perceive a sense of life satisfaction?
Table 2
Descriptive Statistics on Life Satisfaction among Prospective Teachers

Scale	*N*	*M*	*SD*	*MPI*	Range Potential	Range Actual	Skew.	Kurt.
Life Satisfaction	400	48.07	4.94	4.37	11-55	33.00	-1.13	3.00
Life Dissatisfaction	400	52.78	4.56	4.40	12-60	27.00	-.88	1.49
LS	400	100.85	7.35	4.38	23-115	44.00	-.74	.93

Table 2 displays the descriptive data for prospective teachers' assessments of life satisfaction. The subscale Life Dissatisfaction has the highest value (M = 52.78, SD = 4.56) in the above table, according to the study's findings. The subscale Life Satisfaction has the lowest value (M = 48.07, SD = 4.94) in the preceding table, based on the data. The mean of LS is 100.85, with a standard deviation of 7.35.

Research Question 2
Do smartphones affect life satisfaction in Perspective Teachers?
Relationship between SPA and LS
The Pearson correlation coefficient was utilized to determine the relationship between SPA and LS.
Table 3
Smart Phone Addiction and Life Satisfaction Correlation

	1	2	3	4	5	6	7
AP	--						
HRI	.64**	--					
MD	.60**	.60**	--				
RS	.46**	.49**	.62**	--			
SPA	.76**	.77**	.91**	.82**	--		
Life satisfaction	.45**	.40**	.48**	.46**	.55**	--	
Life dissatisfaction	14**	.13*	.08	.01	.09	.20**	--
LS	.39**	.35**	.37**	.31**	.42**	.79**	.75**

Note. ** Correlation (2-tailed) is significant at the 0.01 level
        *Correlation (2-tailed) is significant at the 0.5 level

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To evaluate the link between the variable sub-scales, a correlation study was conducted using Pearson r. At the p.05 level of significance, a positive moderate correlation was discovered between the subscales of the variables SPA and LS. SPA has a moderately favorable relationship with LS (r =.42), LS values will be higher if SPA scores are high. Furthermore, if the SPA scores are low, the LS value will likely be lower as well.

Regression Analysis
Regression analysis was used to discover the effect of smartphone addiction on life satisfaction in prospective teachers. The positive characteristics of associations were determined using connection analytics.

Link of Smart Phone Addiction with Life Satisfaction
Table 4
Model Evaluation: SPA-LS Relationship, Model Summary[a] (N = 400)

Model	R	R^2	Adj.R^2	Std. Error	F	p
1	.42[a]	.18	.18	6.66	86.97	.00

a. Predictor: (Constant) SPA
b. Dependent Variable: LS

To decide the implication of smartphone addiction on perspective teachers' life satisfaction, linear regression analysis has occurred. As displayed in Table 4, addiction to smartphones was demonstrated to be huge ($R2 =.18$) at the p≤.05 level of importance. The impacts addiction to smartphones on the life satisfaction of prospective teachers were found to essentially anticipate the reliant variable with" (F=86.97, p=.00). These variables' findings indicate that smartphone addiction has an impact on potential instructors' life happiness.

Research Question 3
What are Perspective Teachers' attitudes toward their smartphone addiction?
Table 5
Smart Phone Addiction: Descriptive Statistics

Scale	N	M	SD	MPI	Range Potential	Range Actual	Skew.	Kurt.
AP	400	13.27	1.96	4.42	3-15	11.00	-1.65	3.89
HRI	400	13.20	1.77	4.40	3-15	11.00	-1.72	5.22
MD	400	34.74	4.21	4.34	8-40	24.00	-1.16	2.37
RS	400	26.05	3.19	4.34	6-30	18.00	-1.06	1.76
SPA	400	87.26`	9.27	4.36	20-100	60.00	-1.55	4.51

The descriptive statistics of prospective instructors' perspectives on smartphone addiction are shown in Table 5. According to the study's findings, the subscale MD has the greatest value (M = 34.74, SD = 4.21) in the previously mentioned table. The outcomes additionally uncovered that the subscale HRI has the least value (M = 13.20, SD = 1.77) in the above table. SPA has a mean and standard deviation of 87.26 and 9.27, respectively.

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Research Question 4
How do Perspective Teachers see their interpersonal relationships?
Table 6
Descriptive Statistics Regarding Prospective Teachers' Interpersonal Relationship

Scale	N	M	SD	MPI	Range Potential	Actual	Skew.	Kurt.
Trust	400	21.63	2.86	4.33	5-25	18.00	-1.37	3.66
TW	400	16.60	2.93	4.15	4-20	14.00	-1.03	1.08
OC	400	22.01	4.43	3.67	6-30	18.00	-.011	-.79
PA	400	30.48	3.98	4.35	7-35	25.00	-1.54	4.15
CM	400	21.60	2.97	4.32	5-25	20.00	-1.20	3.07
IR	400	112.30	10.75	4.16	27-135	84.00	-1.20	4.50

The descriptive statistics of prospective teachers' impressions of interpersonal interactions are shown in Table 8. According to the study's findings, in the preceding table, subscale PA has the highest value (M = 30.48, SD = 3.98). The findings additionally demonstrated that the subscale TW in the preceding table has the smallest value (M = 16.60, SD = 2.93). The mean for IR is 112.30, with a standard deviation of 10.75.

Research Question 5
Does smartphone addiction affect Perspective Teachers in interpersonal relationships?
Table 7
Smart Phone Addiction and Interpersonal Relationship Correlation

	1	2	3	4	5	6	7	8	9	10
AP	--									
HRI	.64**	--								
MD	.60**	.60**	--							
RS	.46**	.49**	.62**	--						
SPA	.76**	.77**	.91**	.82**	--					
Trust	.48**	.48**	.63**	.62**	.69**	--				
TW	.45**	.39**	.52**	.40**	.54**	.53**	--			
OC	.16**	.20**	.61	.10*	.14**	.04	.16**	--		
PA	.30**	.33**	.62**	.31**	.40**	.35**	.29**	.07	--	
CM	.26**	.32**	.37**	.33**	.40**	.37**	.25**	.03	.50**	--
IR	.50**	.52**	.57**	.52**	.65**	.66**	.66**	.02**	.71**	.64**

Note. ** Correlation (2-tailed) is significant at the 0.01 level
         *Correlation (2-tailed) is significant at the 0.5 level

To evaluate the link between the variable sub-scales, correlation research was conducted using Pearson r. A positive significant connection among the subscales of the variables SPA and IR was established at the p≤.05 significant level. SPA has a strong positive relationship with IR (r =.65), indicating that if SPA scores are high, IR scores will be as well. Furthermore, if the SPA values are low, the IR value will be lower as well.

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Regression Analysis

The Impact of Smart Phone Addiction on Interpersonal Relationships in Prospective Teachers was discovered using regression analysis. RA was employed to determine the strength of relationships.

Table 8

Model Evaluation: Relationship between SPA and IR, Model Summary[b] (N = 400)

Model	R	R^2	Adj.R^2	Std. Error	F	P
1	.65[a]	.42	.41	7.09	283.41	.00

a. Predictor: (Constant) SPA
b. Dependent Variable: IR

A linear regression approach was used to examine the impact of dependence on smartphones on prospective instructors' interpersonal interactions. The dependence on smartphones was found to be substantial with (R^2 =.41) at the $p \leq .05$ level of probability. The results showed that the influence of dependence on cell phones on prospective teachers' interpersonal relationships was significantly predicted the dependent variable with" (F=283.42, p =.001). All these variables' results indicate that dependence on smartphones has a link with the interpersonal relationships of prospective teachers.

Validity and Reliability

Expert opinion was used to guarantee the instrument's validity. Following professional advice, changes were made to the instrument. Cronbach's Alpha was calculated to assess the instrument's reliability. The overall reliability of the instrument was 78, reflecting good reliability. Each of the measures was confirmed to be reliable depending on the alpha coefficients, with SPA AT.89 indicating strong reliability and an SLS of .75 suggesting adequate reliability.

Table 9

Cronbach's Alpha Coefficient Interpretation

Interpretation	Strength
Excellent	>.9
Good	>.8
Acceptable	>.7
Questionable	>.6
Poor	>.5
Unacceptable	>.5

Table 10

Scale Alpha Reliability Coefficients

Variable	N	Items	α
SPAS	60	20	.89
SLS	60	23	.84
Overall reliability	60	70	.78

Smart Phone Addiction (SPA) and Life Satisfaction (LSS)

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Results

The Addiction to Smart Phones: Perceptions of Prospective Teachers

The mean score for respondents to the SPA scale assessment was 4.36, indicating that the assessed SPA score for SSTs is greater than the scale position (2.5) on a five-point Likert-type rating scale. Smartphone Addiction Survey went from insistently digressing (1) to unequivocally agreeing (5). Approaching teachers' bits of knowledge concerning progressed cell propensities and different viewpoints are given as follows: According to the findings of the survey, the subscale of educational execution has an independent mean value and standard deviation (M = 13.27, SD = 1.96). The mean worth and standard deviation of prosperity-related issues are independent (M = 13.20, SD = 1.77). Disposition Disarray has a mean value of 34.74 and a standard deviation of 4.21% (M = 34.74). Relationship fulfillment has a mean worth and standard deviation (M = 26.05, SD = 3.19) independently. According to the review, the subscale MD from the previous table receives the most praise (M = 34.74, SD = 4.21). From the table above, revelations also revealed that subscale HRI has the highest unworthiness (M = 13.20, SD = 1.77). SPA's standard deviation and mean are 87.26 and 9.27 respectively.

Prospective Teachers' Perceptions of Life Satisfaction

The Life Satisfaction Scale (LSS) went from emphatically deviating (1) to firmly concurring (5). Forthcoming educators' discernments regarding life fulfillment and various aspects are given as follows: The mean and standard deviation of the Life Satisfaction subscale are (M = 48.07, SD = 4.94), respectively. The mean and standard deviation of the Life Dissatisfaction subscale are (M = 52.78, SD = 4.56), respectively. According to the study's findings, the subscale Life Disappointment has the highest esteem (M = 52.78, SD = 4.56). Disclosures further uncovered that the subscale Life Satisfaction has the highest unworthiness (M = 48.07, SD = 4.94). The mean and standard deviation of LS overall are 100.85 and 7.35, respectively.

Prospective Teachers' Perceptions of Interpersonal Relationships

The mean score for respondents to the assessment of the SPA scale was 4.36, which shows that SSTs assessed SPA score is higher than the scale community's (2.5) on a five-point Likert type rating scale. Moving toward educators' pieces of information concerning state-of-the-art cell inclinations and alternate points of view, the following is given: The survey's discoveries revealed that the subscale of educational execution has a mean worth of 13.27 and a standard deviation of 1.96, individually. Success-related issues have a mean worth and standard deviation (M = 13.20, SD = 1.77) freely. Temperament Confusion has a mean of 34.74 and a standard deviation of 4.21 percent (M = 34.74) for each individual. Relationship fulfillment's mean and standard deviation (M = 26.05, SD = 3.19) are independent variables. The survey uncovered that the subscale MD from the past table has the most noteworthy regard (M = 34.74, SD = 4.21). Disclosures further uncovered that subscale HRI has the most noteworthy disgracefulness (M = 13.20, SD = 1.77) from the above table. SPA has a mean of 87.26 and a standard deviation of 9.27, respectively.

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The Effect of Smartphone Addiction on Prospective Teachers' Interpersonal Relationships

The study's findings suggested that Pearson r was used to determine connection examination by examining connections between the factor sub-scales. At the p.05 level of importance, a positive critical relationship was found between the sub-sizes of the factors IR and SPA. SPA has a strong positive relationship with IR (r =.65), and it shows that if SPA scores are high, IR scores will in like manner be high. Additionally, IR scores will also be low if SPA Scores are low. A straight backslide assessment was coordinated to track down the significance and effect of the Cell Phone Addiction Scale on inevitable teachers' social associations. The variable high-level cell reliance was seen as basic, with (R2 = .41 at p≤.05 level of significance. The disclosures of the effect of cutting-edge cell phone obsession on approaching educators' social associations on a very basic level expect the dependent variable to be (β =.65, F = 283.42, p =.00). This demonstrated a stronger connection between SPA and IR.

Discussion
Study findings uncovered that Smartphone addiction altogether affects planned educators' life fulfillment. Cognitive perceptions of an individual's subjective well-being were also included in the report of life satisfaction. Numerous studies demonstrate similar outcomes (Cevik, 2017). Numerous previous studies that are in line with the literature (Avsaroglu et al., 2005; Keser, 2005) demonstrate the same outcomes. It was additionally seen that concentrates on life fulfillment have been on increment (Duy and Yıldız, 2014; 2016 (Yildz and Baytemir). Similarly, it was discovered that teachers' attitudes toward the teaching profession were significantly influenced by their level of life satisfaction. The equal outcomes were given by Bian et al. (2018). Accordingly, in light of the exploration discoveries of studies comparative outcomes were given by Cevik, 2017. The majority of prospective teachers were content with their lives, according to the study's findings. It is additionally uncovered that Life fulfillment and PDA fixation showed a positive connection. Cevik (2017) found that dangerous cell phone utilization among youngsters and educators affected their personal satisfaction, life fulfillment, and prosperity. The study findings revealed that smartphone addiction enslavement essentially affects imminent educators' relational connections. The aftereffects of the review helped identify the presence and factors of SPA for planned instructors. The outcomes are lined up with the exploration of advanced cell fixation led by (Marinakou and Giousmpasoglou, 2014; Mills et al., 2014). The outcomes were viewed as consistent with past examinations (Adalar, 2021; Reese and Bomhold, 2013). Cell phone fixation can be portrayed as unreasonable utilization of the telephone, powerlessness to forestall the craving to utilize it, issues halting or limiting use, being focused on when it can't be utilized, and not coming clean about the purpose. The Interpersonal relationship means score at the instructor's level and its sub-levels are found to correspond, falling over the middle of the scale. The findings of the study uncovered that the educators thought that relational connections play a significant role in homeroom climate, understudies' qualities, perceptions, and social results (Hurtado et al., 2012; Kim and Sax, 2014). The current study, in line with previous research (Zhang et al., 2020), investigated a positive relationship between the LS subscales. Relapse examination affirms the discoveries of connection

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investigation. The literature (Haybron, 1997) also demonstrated a positive relationship between the LS subscales. Being content includes having what you want, feeling good, and being happy. The discoveries of Settley (2020) are inconsistent in investigating discoveries and showed unnecessary use of cell phones prompts gloomy sentiments, for example, dejection and bitterness, which have been displayed to have a negative association with life fulfillment.

Conclusion
It was concluded from this study that advanced mobile phone dependence altogether affects future educators' life fulfillment. The majority of prospective teachers, according to the study's findings, reported experiencing blurred vision, feeling tired, and not getting enough sleep due to excessive smartphone use. The Life Satisfaction Scale (LSS) went from unequivocally differing to emphatically concurring. Both the instructor-level mean score for LS and its sub-factors are found to be below the middle of the scale. The study's findings revealed that the perspective of planned educators concerning life satisfaction depicts that they are content with their lives. The Interpersonal Relationship Scale (IRS) increased from strongly disagreeing to strongly agreeing. The mean score of IR at the instructor level and its sub-factors agree, falling in the middle of the spectrum. The study's findings revealed that a big portion of the prospective teachers lacked open communication with peers; their gathering individuals imparted thoughts and insights, their colleagues expressed that they were nice and cordial individuals; and they could undoubtedly impart their concerns and weights to their colleagues. The study's findings additionally revealed that life fulfillment fundamentally affects planned instructors' relational connections.

Recommendations
It may be recommended to develop and implement educational programs within teacher training institutions to raise awareness about the potential consequences of smartphone addiction on life satisfaction. These programs could include workshops, seminars, and information sessions that provide prospective teachers with strategies to manage their smartphone usage and promote a healthy work-life balance. It may also be recommended to incorporate digital literacy and mindfulness training into the curriculum for prospective teachers. Smartphone addiction has a huge impact on the interpersonal interactions of potential instructors. To distract students' attention, they may be encouraged to start productive hobbies such as lectures, sports, and workshops. The excessive use of smartphone addiction impacted mood disorders. In this regard, their interaction, changes in mood, conflicts, and so on are all caused by smartphones; so, it may be beneficial to raise awareness concerning the negative and good effects of smartphone utilization and to engage in some group activities.

References
1. Abu-shanab, E. (2015). The Influence of Smart Phones on Human Health and Behavior : Jordanians' Perceptions. International Journal of Computer Networks and Applications, 2(2), 52-56.
2. Adalar, H. (2021). Smartphone Perception and Experiences of Teacher Candidates during COVID-19 Process: What is My Smartphone for Me? *Education Quarterly Reviews*, *4*(2), 1-13.
3. Aravind, C. V., Gamboa, R. A., & Lim, S. C. (2019). Empowered pedagogy: Catching up with the

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Effect of Smartphone Addiction on The Life Satisfaction and Interpersonal Relationships of Prospective Teachers

future. *Malaysian Journal of Learning and Instruction*, *16*(1), 1-22.

4. Avşaroğlu, S., Deniz, M.E. &Kahraman, A. (2005). Investigation of life satisfaction, job satisfaction and professional burnout levels of technical teachers. *Journal of Selcuk University Institute of Social Sciences*, *6*(14), 115-129.

5. Bolin, B., & Dodder, R. (2001).The Affect Balance Scale in an American College Population.*The Journal of Social Psychology, 130*(6), 839-840.

6. Bian, Y. F., Zhou, J., Wang, D., and Chen, X. G. (2018). The relationship between smartphone addiction and learning burnout among college students. *J. Int. Psychiatry.* 45, 103–106.

7. Billieux, J. (2012). Problematic use of the mobile phone: a literature review and pathways model. *Current Psychiatry Reviews, 8*(4), 299e307

8. Cao, Y., Fatemi, V., Fang, S., Watanabe, K., Taniguchi, T., Kaxiras, E., &Jarillo- Herrero, P. (2018).Unconventional superconductivity in magic-angle graphenesuperlattices.*Nature*, *556*(7699), 43-50.

9. Cevik, G. B. (2017). The Roles of Life Satisfaction, Teaching Efficacy, and Self-Esteem in Predicting Teachers' Job Satisfaction. *Universal Journal of Educational Research*, *5*(3), 338-346.

10. Deiner, E., &Deiner, M. (1995).Cross-Cultural Correlates of Life Satisfaction and Self-Esteem.*Journal of Personality and Social Psychology, 68*(4), 653-663.

11. Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276-302.

12. Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (2013). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276-302.

13. Duy, B., &Yıldız, M. A. (2014). Does being in a different bully status make a difference regarding empathy and life satisfaction? *Journal of Mersin University Faculty of Education*, 10(3), 31-47.

14. Haybron, D. (2007). Life satisfaction, ethical reflection, and the science of happiness. *Journal of Happiness Studies*, *8*(1), 99-138.

15. Hurtado, S., Alvarez, C., Guillermo-Wann, M., Cuellar, M, & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (eds.), *Higher Education: Handbook of Theory and Research* (2nd ed., pp.50-75). Springer.

16. Jee Hyun Ha, Bumsu Chin, Doo-Heum Park, Seung-Ho Ryu, and Jaehak Yu (2008). Characteristics of excessive cellular phone use in korean adolescents. *Cyber Psychology & Behaviour, 11*(6), 783—784

17. Keser, A. (2005). Relationship between job satisfaction and life satisfaction, Work and Society.*Work and Society*, *4*(1), 77-95.

18. Kim, H. (2013). Exercise rehabilitation for smartphone addiction. *J. Exerc. Rehabil. 9*(2), 500–505.

19. Kim, Y. K., & Sax, L. J. (2014). The effects of student–faculty interaction on academic self-concept: does academic major matter? *Research in higher education*, *55*(8), 780-809.

20. Kwon, M., Kim, D. J., Cho, H., and Yang, S. (2013). The smartphone addiction scale: development and validation of a short version for adolescents. *PLoS One* 8:e83558. doi: 10.1371/journal.pone.0083558

21. Lopez-Fernandez, O., Honrubia-Serrano, L., Freixa-Blanxart, M., & Gibson,W. (2014).

22. Prevalence of problematic mobile phone use in British adolescents. *Cyberpsychology, Behavior, and Social Networking, 17*(2), 91-98.

23. Marinakou, E. & Giousmpasoglou, C. (2014, March 27-30). *M-learning in higher education in Bahrain: The educators' view* [Paper presentation]. Proceedings of the, HBMeU Congress 2014: Leading transformation to sustainable excellence, Dubai, UAE.

24. Mills, G.E., & Gay, L.R. (2019). Educational Research: Competencies for Analysis and Applications Misra, R., & Castillo, L. (2004). Academic Stress among College Students: Comparison of American and International Students. *International Journal of Stress Management, 11*(2), 132-148.

Effect of Smartphone Addiction on The Life Satisfaction and Interpersonal Relationships of Prospective Teachers

25. Mustafaoglu, R., Yasaci, Z., Zirek, E., Griffiths, M. D., and Ozdincler, A. R. (2021). The relationship between smartphone addiction and musculoskeletal pain prevalence among young population: a cross-sectional study. *Korean J. Pain.* 34, 72–81.
26. Nguyen, H. T. H., Pham, H. V., Vu, N. H., Hoang, H. T. (2020). Factors influencing students' intention to use e-learning systems. *International Journal of Emerging Technologies in Learning*, *15*(18), 165-182.
27. Nizar, N. N. M., Rahmat, M. K., Maaruf, S. Z., & Damio, S. M. (2019). Examining the use behavior of augmented reality technology through MARLCARDIO: Adapting the UTAUT model. *Asian Journal of University Education*, *15*(3), 198-210.
28. Park, N., & Lee, H. (2012). Social implications of smartphone use: Korean College students' smartphone use and psychological well-being. *Cyberpsychology, Behavior, and Social Networking*, *15*(9), 491–497
29. Park, S. Y., Kim, Y. H., Lee, S. Y., Sohn, W., Lee, J. E., Shim, Y. S., & Jang, H. W. (2018). Highly selective and sensitive chemo-resistive humidity sensors.*Journal of Materials Chemistry*, *6*(12), 5016-5024.
30. Paolini, L., Yanez, A. P., & Kelly, W. E. (2006). An Examination of Worry and Life Satisfaction Among College Students*. Individual Differences Research, 4*(5), 611-620.
31. Reese Bomhold, C. (2013). Educational use of smartphone technology: A survey of mobile phone application use by undergraduate university students. *Program*: electronic library and information system, *47*(4), 424-436.
32. Rosen, L. (2011, August 6). Poke me: How social networks can both help and harm our kids. In keynote/plenary session at the *American Psychological Association Annual Convention*, Washington, DC
33. Santhi V., & Rajesh B. (2020). Impact of smartphone usage on the academic performance among medical students. *J. Evolution Med. Dent. Sci*., *9*(2), 105-110
34. Satici, B., and Deniz, M. E. (2020). Modeling emotion regulation and subjective happiness: smartphone addiction as a mediator. *Addicta.* 7, 146–152.
35. Settley, C. (2020). The physical and psychological well-being of caregivers of individuals suffering from substance addiction. *Arch. Psychiatr. Nurs.* 34, 107–109.
36. Volungis, A. M., Kalpidou, M., Popores, C. (2020). Smartphone addiction and its relationship with indices of social-emotional distress and personality. *Int J Ment Health Addiction*, *18*, 1209– 1225.
37. Wali., A. Z., & Omaid, M. E. (2020). The use of smartphones as an educational tool in the classroom: Lecturers' perceptions. *The Journal of Emerging Technologies*, *15*(16), 238-247
38. Yao, M. P., Jia, Z. B., Chen, X., and Jiao, S. S. (2016). The mediating effect of meaning in life on boredom and mobile phone dependence behavior of college students. *Chin. J. Sch. Health.* 37, 453–456.
39. Yıldız, M. A. &Baytemir, K. (2016). A mediation role of self-esteem in the relationship between marital satisfaction and life satisfaction in married individuals. *Journal of İnönü University Faculty of Education*, 17(1), 67-80.
40. Zhang, G., Yang, X., Tu, X., Ding, N., & Lau, J. T. (2020).Prospective relationships between mobile phone dependence and mental health status among Chinese undergraduate students with college adjustment as a mediator.*Journal of Affective Disorders, 260(*15), 498-505.