

## **Perceived Online Social Support, Internet Addiction, and Psychological Well-being among University students**

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### **ABSTRACT**

This study aims to explore the relationship between perceived online social support, internet addiction, and psychological well-being among university students. A sample of 250 university students from different universities in Lahore was included in this study. A purposive sampling strategy was used to collect survey data using internationally standardized tools. Pearson Product Moment Correlation and Multiple Hierarchical Linear Regression results showed that two subscales of perceived online social support, friends, and family, had a significant positive relationship with psychological well-being among university students. Among predictors, the current level of the semester and one subscale of perceived online social support- family, emerged as a significant positive predictor of psychological well-being among university students. The study concludes that family and friends are integral to the psychological well-being of university students and interventions must be planned to ensure that university students living far from home and those with excessive workloads have sufficient online and offline time with family and friends for mental health and well-being.

**Keywords:** Online social support, internet addiction, psychological well-being, resilience, university students.

## INTRODUCTION

Getting enrolled in a university is perceived as a milestone and a joyous moment, but it can also be quite stressful for some students. Nowadays, the atmosphere of universities is believed to be lacking social support and genuine care. Therefore, university students are seen as at risk of having a number of new life stressors (Jibeen, 2015). University students are at the prime age for learning and growth but their lives are complicated due to family relationships, lack of social support, academic pressures, and a hectic pace of life (Leung, 2007). Based on the significant changes in human and social relationships, university students face difficulty in adapting to and coping with new roles and expectations (Jibeen, 2015).

Social support is considered as the help offered by someone with whom the individual has interpersonal relationships including family, friends, and significant others. Since, online social support is obtained via online settings therefore it has become more prevalent and important in the modern age of computers, especially since the emergence of social networking services (Liu & Ma, 2019a). Perceived online social support refers to the degree of support and help received from different sources such as friends, family members, and any other special person(s) via online resources. This support might include any informational, psychological or overall support in the time of need. Since it is referred to as the social support provided by others, therefore it is explained as the subjective feeling of being supported rather than the actual support received. Online social support is considered one of the widely practiced resources to cope with stress and other life strains (Cobo-Rendon et al., 2020). The internet compensatory model also theorizes that people make use of the internet to escape real life situations and meet their needs which may lead to unfavorable consequences such as estranged family relations, gaming addiction, or other internet addictive behaviors (Zhao et al., 2021).

Close relationships and social support are the universal need of all individuals irrespective of their culture. According to the interpersonal theory of Sullivan, one's interpersonal relationships play a significant role in personality formation (Sullivan, 1997). Due to the little or no involvement of nonverbal cues in online social support, users are more likely to experience more intense and intimate self-disclosure. This is also backed up by the social presence theory, which postulates that due to less complexity and physical presence, fewer demands and less nonverbal cues, users may find greater warmth and support through online communication (Wood & Smith, 2004). Research also suggests that positive psychological outcomes depend on one's perception of online social support as more advantageous, due to low interpersonal sophistication and less requirement for having social skills (Kang, 2007). Studies further indicate that online social support is most beneficial among young people as it mediates between stress and anger.

As with other means, the use of the internet has its positive and negative consequences. Although a lot of evidence from the literature suggests a positive relationship between perceived online social support and positive health, yet the powerlessness of people to control their use of the internet may lead towards poor psychological outcomes as well (Bhattarai et al., 2021). While healthy internet use might involve positive psychological states, educational benefits and social support, its misuse on the other hand, might lead to negative consequences such as internet addiction, which leads to multiple problems in life dissatisfaction (Suhail & Bargees, 2006). The term internet addiction was primarily coined by Dr. Goldberg. It is defined as a pathology driving an individual to excessively use technology, leading to a varied range of poorly controlled preoccupations, urges and compulsive behaviors (Salicetia, 2015). In one of the experiments conducted on internet usage, the results concluded that the majority of internet addicts were experiencing problems in their life. Thus, the literature indicates that the excessive use of

technology could increase social isolation and thereby impact psychological well-being among internet users (Suhail & Bargees, 2006).

The Internet is considered the most useful and important tool for a modern person to which people have become excessively attached. With the ease of access, internet use has tripled in the last two years. As per the recent statistics of Pakistan Telecommunication Authority (PTA), around 1 million students are active internet users in Pakistan. Worldwide, the number of internet users stands at above 4.66 billion people (Raza, 2020). Evidence from prior studies documents the growing psychological distress among the student population (Bewick et al., 2010).

In response to the pandemic of COVID-19, a sudden rise in internet usage for online social support has led to a significant change in the daily functioning and psychological well-being of students. Psychological well-being is defined as being in a positive mental state such as; happiness, pleasure, satisfaction and reduced distress. As per the American Psychological Association, psychological well-being is a state of contentment and satisfaction with a low level of distress and overall good mental health with a positive outlook towards life (Vandenbos, 2015). Even before the pandemic, internet usage was prevalent among university students for escapism and to cope with complex thoughts. Escapism is referred to as avoidant coping, which aims at escaping unfavorable life circumstances (Fernandes et al., 2020). According to the Self-Determination Theory, unfulfilled and unmet psychological desires lead to poor control of one's life. The unmet needs have adverse consequences for the mental and physical health of an individual. Moreover, in light of this theory, distorted self-image and excessive internet usage emerge as indicators of unfulfilled desires (Deci & Ryan, 1985).

A large number of research shows that frequent use of the internet is becoming the major cause of psychological disturbances among students (Azher et al., 2014). The perception of online

social support and the influence of internet addiction on one's psychological well-being also varies with an individual's experience and usage (Hsu et al., 2020).

Evidence also suggests that appropriate use of the internet can help foster psychological well-being among individuals. It is mainly because if the internet is used within some limits, it can be helpful in relieving stress. Moreover, the research findings also conclude that individuals with low social skills are more inclined to use internet in order to improve their social skills and buffer negative feelings such as stress and anxiety (Ma, 2017).

The Stimulation and Displacement Theory elaborates on the relationship between social support, internet addiction, and well-being. According to the Stimulation Theory, young people who are addicted to the internet, are inclined towards increased communication with friends, family, and significant others through online browsing, which may improve their well-being by increasing the closeness, relatedness, and quality of their relationships. To put it in simpler words, individuals who are frequent users of the internet tend to develop strong online social ties thus having a better quality of life. However, the reverse of this is argued by Displacement Theory, which suggests that an increase in internet addiction reduces offline meaningful connections thus resulting in psychological distress among individuals (Guo et al., 2021).

While positive use of the internet can turn out to be beneficial, over-reliance on it can be problematic. A research study with Dutch adolescents found that the use of the internet for non-communication purposes such as surfing was linked with internalizing problems such as depression and social anxiety. Moreover, adolescents with an insignificant level of perceived social support and a high level of internet usage may develop an increased sense of loneliness and social isolation (Selfhout et al., 2009).

A model proposed by Cohen and Wills (1985) known as Buffering Model of Social Support postulates that social support networks foster the belief that resources and social support are available which reduces and diminishes the level of stress and loneliness thus ultimately promoting well-being among individuals (Cohen & Wills, 1985, as cited in Cole et al., 2017). Literature has also confirmed the unique nature of perceived online social support according to different cultural contexts. Jibeen (2015) demonstrated that from the perspective of an individualistic culture, the perception of support from friends has been found to be a significant predictor of well-being; whereas in collectivistic cultures support from parents and family is more important than any other sources of support. Therefore, the key objective of this study is to explore perceived online social support, internet addiction and psychological well-being among university students in Pakistan.

### ***Rationale of Study***

Even though research about internet addiction is quite common worldwide, it needs to be explored in our culture. The indigenous literature has mainly focused on loneliness as the main influencing factor of internet addiction (Asghar, 2019; Malik & Rafiq, 2016; Saleem et al., 2015). However, the reverse of it can also be possible i.e., internet addiction can lead to isolation and poor psychological well-being. Especially after the pandemic, with online connectivity being widespread among university students, the patterns of perceived online social support, internet addiction and psychological well-being have not been paid much attention. Therefore, it has become a need of the hour to explore the impact of perceived online social support and internet addiction on psychological well-being among students so that timely measures can be taken to promote better adaptability and adjustment skills for students.

Despite the growing number of studies focusing on psychological problems across western cultures, little is known about the role of perceived online social support and internet addiction in

South Asian culture. For practical implications, this research can help in developing intervention programs by integrating online social support which can play a significant role in boosting self-confidence and well-being among students. Moreover, it can highlight the need to maintain a healthy balance between online and offline social support to suffice students' need for support and to ensure that individuals become less addicted to internet usage.

### ***Aim of study***

The current study aimed to explore the relationship of perceived online social support and internet addiction with psychological well-being among university students. It also aimed to assess the perceived online social support and internet addiction as predictors of psychological well-being among university students.

## **METHODOLOGY**

### ***Research Design***

This study is cross-sectional and uses a quantitative research design.

### ***Ethical Considerations***

All the participants voluntarily took part in the research. Written informed consent which clearly stated the aims and objectives of the study was taken from all the participants. Respondents were told about their right to withdraw at any time during the research and were assured about their privacy and confidentiality throughout the research and even afterwards as their personal information and responses were kept anonymous. No sensitive questions were asked at any point during data collection. The participants were informed about their right to ask questions regarding the research. Ethics clearance was gained from the Kinnaird College Psychology

Department. Permission was sought from the authors of the tools for use in this research prior to starting the study.

### ***Sample***

The participants were selected using purposive sampling strategy. The sample for this study included undergraduate university students who had access to the internet and were active users.

### ***Data Collection***

A pilot study was done to have a preliminary evaluation of the questionnaire and to identify possible problems. No issues were found in the pilot test. The data for the study was collected from November 2021-January 2022 and was collected in person. An informed consent letter was also attached to the questionnaire. Participants from three universities of Lahore including Punjab University, University of Central Punjab, and Kinnaird College for Women were included in the study. A total of 250 university students were a part of the final sample including 125 men and 125 women.

### ***Hypotheses***

1. There is a strong correlation among perceived online social support, internet addiction, and psychological well-being among university students.
2. Perceived online social support predicts psychological well-being among university students.
3. Internet addiction predicts psychological well-being among university students.

### ***Measures***

#### **Demographic Information Sheet**

The questionnaire included demographic questions including age, gender, education level, current semester, daily internet use, socioeconomic status and marital status.

#### **Online Multidimensional Scale of Perceived Social Support**

The Online Multidimensional Scale of Perceived Social Support (oMSPSS) which is the adapted version of the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) was used. It is designed to measure the perception of online social support received and has been used by multiple other studies as well (Ali, 2020; Nabi et al., 2013; Frison & Eggermont, 2015). The scale comprises of 12 items and each item has to be rated on a 7-point Likert scale. It has three subscales including family, friends, and significant other. Each subscale includes four items with responses ranging from 1 (very strongly disagree) to 7 (very strongly agree). Cronbach alpha of the scale is .95. For each of the subscales it is, family  $\alpha = .87$ , friends  $\alpha = .88$  and significant others  $\alpha = .88$  respectively. The scores ranging from 1-2.9 represent low social support, from 3-5 represent moderate social support, and scores from 5.1-7 represent higher social support.

#### Chen Internet Addiction Scale

The Chen Internet Addiction Scale (CIAS) is a 26- item self-reported questionnaire, which measures five dimensions of problematic internet usage (Chen et al., 2003). Each item has to be rated on a 4-point Likert scale with responses ranging from 1 (Strongly disagree) to 4 (Strongly agree). It has five subscales which include: compulsive symptoms, withdrawal symptoms, tolerance symptoms, interpersonal and health problems, and time management problems. The Cronbach alpha value is 0.94. A total score of 64 is the cutoff point used to classify internet addiction. Higher scores indicate greater severity of internet addiction.

#### Warwick-Edinburgh Mental Well-being Scale

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) is a self-report tool to measure psychological well-being (Tennant et al., 2007). The full scale includes a total of 14 items with 5 points Likert scale ranging from 1 (none of the time) to 5 (most of the time). The participants are asked to complete the scale by marking the box which describes their experience of each statement.

The minimum and the maximum score for this scale is 14 and 70 respectively. All the items on the scale are positively scored. The overall score is obtained by adding the score of each item. Cronbach alpha value ranges between 0.89 to 0.91. A higher score indicates greater psychological well-being.

### ***Data Analysis***

The Statistical Package for Social Sciences (SPSS) version 22.0 was used for data analysis. First, Pearson Correlation was used in order to explore the relationship between perceived online social support, internet addiction, and psychological well-being among university students. Next, multiple hierarchal linear regression was run to assess perceived online social support and internet addiction as predictors of psychological well-being among university students. Significant p-values of less than 0.05 were considered significant.

## **RESULTS**

Table 1 presents the demographic information of the participants. The age of the participants ranged between 18- 24 years with (M age= 20.49; SD= 1.42). All participants were enrolled in an undergraduate degree and used the internet daily. Majority of the participants belonged to the middle class and were currently single. Table 2 shows the Cronbach alpha values of all scales and sub-scales used in the current study. The skewness and kurtosis values in Table 2 fall within the acceptable range showing that data is approximately normally distributed.

**Table 1**  
*Demographic Characteristics of the Sample (N=250)*

Variables	F	%
Age (M= 20.49; SD: 1.42)		
Gender		
Male	125	50
Female	125	50
Education Level		
Undergraduate	250	100
Current Semester		
Semester 1	31	12.4
Semester 2	56	22.4
Semester 3	39	15.6
Semester 4	79	31.6
Frequency of Internet Use		
Daily	250	100
Socio-economic Status		
High	45	18
Middle	193	77.2
Low	12	4.8
Marital Status		
Single	243	97.2
Married	4	1.6
Divorced	3	1.2

Note: f= frequency; %= percentage; M= Mean; SD= Standard Deviation

**Table 2**  
*Reliability coefficients of study scales (N=250)*

Variables	K	M	SD	Potential Range	a	Skewness	Kurtosis
OMSPSS	12	53.06	13.67	12-84	.85	-.61	-.04
SO	4	18.24	6.71	4-28	.86	-.44	-.79
FAM	4	15.67	5.54	4-28	.77	-.19	-.62
FRND	4	19.16	5.26	4-28	.76	-.47	-.18
IA	26	66.84	14.48	26-104	.91	.04	-.32
COM	5	13.00	3.44	5-20	.73	-.01	-.73
WITH	5	13.30	3.60	5-20	.78	-.07	-.50
TOL	4	10.73	2.80	4-16	.67	-.12	-.49
IH	7	17.60	4.40	7-28	.74	-.01	-.54
TM	5	12.21	3.55	5-20	.68	.12	-.68
PWB	14	46.11	9.34	14-70	.84	-.24	.13

Note: OMSPSS= Online Multidimensional Scale of Perceived Social Support; SO= Significant Others; FAM= Family; FRND= Friends; IA= Internet Addiction; COM= Compulsive Symptoms; WITH= Withdrawal Symptoms; TOL= Tolerance Symptoms; IH= Interpersonal and Health problems; TM= Time Management problems; PWB= Psychological Well-being; k= total no. of items; M= Mean; SD=Standard Deviation; a=Cronbach's Alpha value

The results of the correlational analysis are presented in Table 3 which shows that two subscales of perceived online social support i.e., family and friends have a significant positive relationship with psychological well-being among university students. This means as the perceived online social support from family and friends increases, their psychological well-being also increases. However, one subscale of perceived online social support i.e., significant others showed no correlation with psychological well-being among university students. This means that variation in perceived online social support from significant others causes no change in their psychological well-being. No significant correlation was found between internet addiction and psychological well-being among university students. Among demographics, only the current semester showed a significant positive relationship with psychological well-being among university students, this means as the students advance to their senior years, their psychological well-being increases.

**Table 3**

*Pearson Product Moment Correlation Coefficient Showing the Relationship between Perceived Online Social Support, Internet Addiction and Psychological Well-being among University Students (N=250)*

Variables	1	2	3	4	5	6	7	8	9
1. O MSPSS-SO	-								
2. O MSPSS-FAM	.28***	-							
3. O MSPSS- FRND	.53***	.44***	-						
4. IA-COM	.04	-.07	.10	-					
5. IA-WITH	.11	-.10	.05	.66***	-				
6. IA-TOL	.06	-.02	.09	.61***	.63***	-			
7. IA- IH	-.01	-.03	-.08	.54***	.50***	.55***	-		
8. IA- TM	.06	-.03	.04	.54***	.47***	.57***	.61***	-	
9. PWB	.12	.25***	.19**	-.09	-.11	-.10	-.07	-.11	-
M	4.56	3.91	4.80	2.60	2.65	2.68	2.51	2.44	3.28
SD	1.68	1.38	1.31	.69	.72	.70	.62	.71	.69

*Note: M=Mean, SD=Standard Deviation; O MSPSS= Online Multidimensional Scale of Perceived Social Support; SO= Significant Others; FAM= Family; FRND= Friends; IA= Internet Addiction; COM= Compulsive Symptoms; WITH= Withdrawal Symptoms; TOL= Tolerance Symptoms; IH= Interpersonal and Health problems; TM= Time Management problems; PWB= Psychological Well-being; \*\*p<.01. \*\*\*p<.001; (two-tailed)*

Multiple Hierarchical Linear regression was run to identify the predictors of psychological well-being among university students. All regression assumptions were fulfilled. The assumption of independent errors was met as the value of Durbin Watson value was between the acceptable

ranges of 1-3. Another assumption of no perfect multicollinearity was tested by checking the tolerance values, and the assumption was met as all the values were greater than 0.2. The assumption of homoscedasticity, linearity and normal distribution of errors were also met for all regression models. The results of regression analyses are presented in table 4 such that in the model I, current semester was added and the regression model was significant,  $R^2 = .05$ ,  $F(1, 249) = 11.69$ ,  $p < .01$ . In model II, three subscales of perceived online social support were added as predictors and the regression model was significant,  $R^2 = .11$ ,  $F(4, 249) = 7.26$ ,  $p < .001$ . When the effect of the model I was excluded from model II, model II still remained significant,  $\Delta R^2 = .06$ ,  $F(3, 245) = 5.57$ ,  $p < .01$ .

In model III, five subscales of internet addiction were added as predictor variables and the regression model was significant,  $R^2 = .12$ ,  $F(9, 249) = 3.64$ ,  $p < .001$ . When the effect of model I and model II was excluded from model III, the model became non-significant,  $\Delta R^2 = .01$ ,  $F(5, 240) = .77$ ,  $p = .58$ . As shown in Figure 1, among all predictors entered, current semester and one subscale of perceived online social support i.e., the family emerged as significant positive predictors of psychological well-being among university students.

**Table 4**  
*Multiple Hierarchical Linear Regression Showing Predictors of Psychological Well-being among University Students (N=250)*

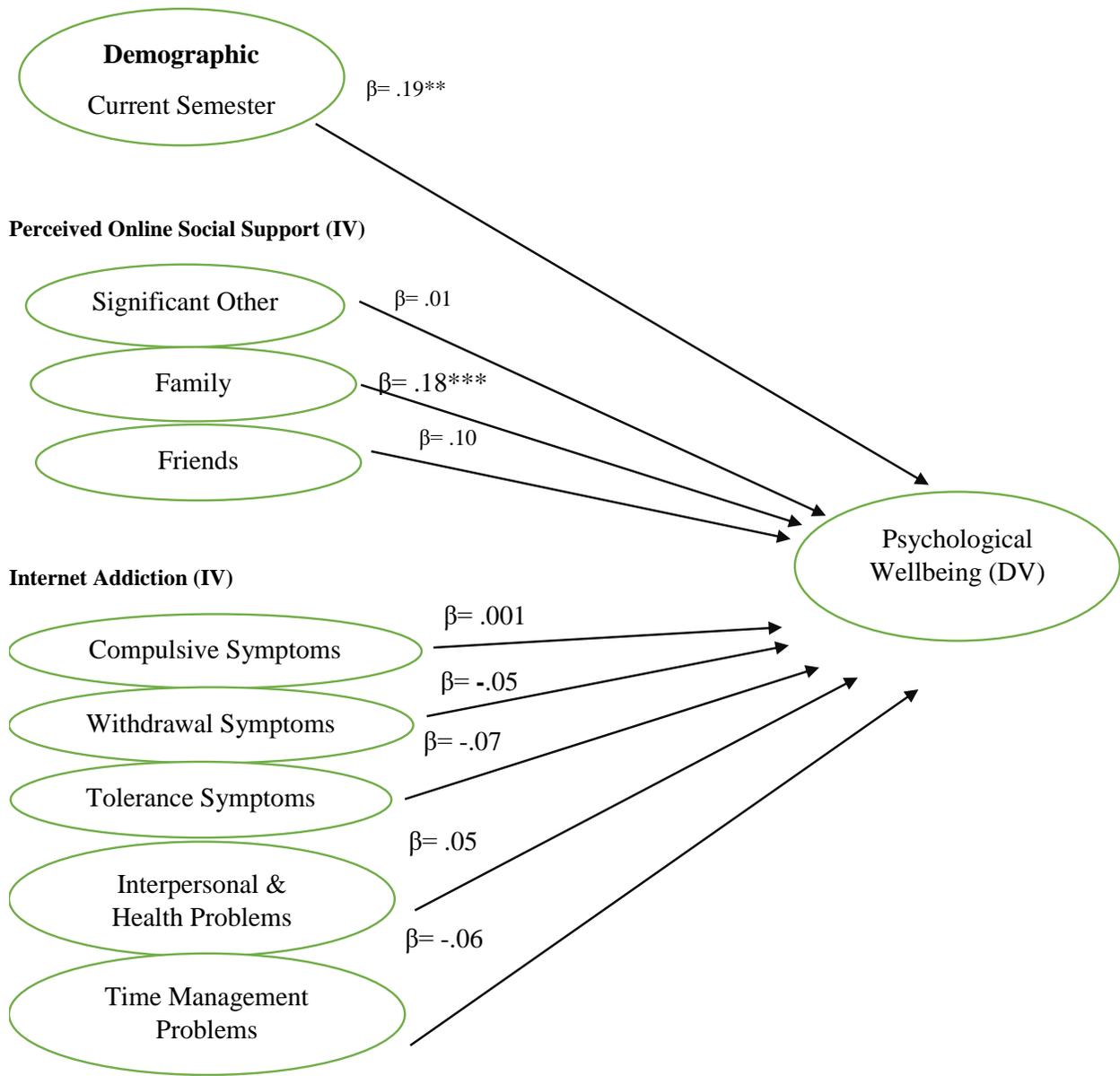
Predictors	B	95% CI for B		SEB	B	R <sup>2</sup>	ΔR <sup>2</sup>
		LL	UL				
<b>Step 1</b>						.05**	.05**
CS	.06**	.03	.10	.02	.21**		
<b>Step 2</b>						.11***	.06**
CS	.06**	.02	.09	.02	.19**		
OMSPSS-SO	.01	-.05	.06	.03	.01		
OMSPSS-FAM	.09**	.02	.15	.03	.18**		
OMSPSS-FRND	.05	-.03	.13	.04	.10		
<b>Step 3</b>						.12***	.01
CS	.05**	.02	.09	.02	.19**		
OMSPSS-SO	.008	-.05	.07	.03	.02		

OMSPSS-FAM	.08	.01	.15	.03	.17
OMSPSS-FRND	.06	-.02	.14	.04	.12
IA-COM	.001	-.17	.17	.09	.001
IA-WITH	-.05	-.21	.12	.08	-.05
IA-TOL	-.07	-.23	.10	.09	-.07
IA-IH	.05	-.13	.23	.09	.05
IA-TM	-.05	-.21	.10	.08	-.06

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*Note:* CS= Current Semester; OMSPSS= Online Multidimensional Scale of Perceived Social Support; SO= Significant Others; FAM= Family; FRND= Friends; IA= Internet Addiction; COM= Compulsive Symptoms; WITH= Withdrawal Symptoms; TOL= Tolerance Symptoms; IH= Interpersonal and Health problems; TM= Time Management problems; PWB= Psychological Well-being; CI= confidence interval; UL= upper limit; LL= lower limit;  $\Delta R^2$  = R square change value;  $\beta$  = standardized beta; B= unstandardized coefficient; Total  $R^2$  = sum of  $\Delta R^2$ ; \*\*p<0.01. \*\*\*p<0.001

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**Figure 1**

Model for Psychological Wellbeing among University Students.

## DISCUSSION

The purpose of this study was to analyze the relationship of perceived online social support and internet addiction with psychological well-being among university students. The study has also examined perceived online social support and internet addiction as predictors of psychological well-being among university students. The first hypothesis of our study proposed that there is a significant relationship among perceived online social support, internet addiction, and psychological well-being among university students. The results of our study partially approve this hypothesis and are consistent with prior literature. The results of the correlational analysis show that two subscales of perceived online social support- family and friends- have a significant positive relationship with psychological well-being among university students. Based on the cultural context of Pakistan, the results may be explained by the cultural norms which make social support from friends and family as primary contributors to well-being (Jibeen, 2015).

The findings of this study are in line with the findings of another study conducted by Hellfeldt et al. (2020) which showed that perceived online social support from family protects individuals who are being exposed to cyber-bullying and from depression and anxiety among. Another indigenous study by Jibeen (2015) also supports our findings in that perceived social support by family and friends is significantly related to decreased levels of psychological distress. Research by Tariq et al. (2020) also concludes that perceived online social support obtained from family and friends is inversely related to symptoms of depression. A systemic review conducted by Gilmour et al. (2019) revealed that Facebook-based social support reduces symptoms associated with depression, anxiety, and loneliness. Moreover, it was deduced that online Facebook-based social support improves both mental and general physical health among young people. The same was also supported by another systematic review, conducted by Erfani

and Abedin (2018) which identified that better self-disclosure, self-esteem, and perceived online social support improves psychological well-being among users. Another perspective from the literature i.e., the Stimulation Hypothesis, also supports the findings as it specifies that an increase in the use of social networking systems is a form of online social support, and increases well-being by reducing loneliness and enhancing the perception of being more connected (Caba Machado et al., 2022).

Results from correlational analysis in this study indicate no significant relationship between internet addiction and psychological well-being among university students. Contradictory findings in the past literature show a significant negative correlation between internet addiction and psychological well-being (Cardak, 2013; Guo et al., 2021; Sharma & Sharma, 2018; Tran et al., 2017). The inconsistency in the findings may be attributable to the different population that the current study has been sampled from. Past research has been conducted on university students from a Western culture who have better, consistent, and early access to the internet as compared to the resources and accessibility available for university students in Pakistan. Another possible reason could be the difference in defining the term, 'internet addiction' because previously used measures might have not catered to all domains but with time, tools have been improved and revised. Now almost everyone has internet access therefore, the patterns of internet addiction found, are clearly different from the past few years. In this way, future scales need to be devised and modified according to the increased usage of the internet by university students and the cultural context of the country for better understanding and clarity. Another study that explored the relationship between internet addiction and psychological well-being among youth in India supported the cultural issue of using Western

tools for South Asian research, as their study also revealed no significant correlation between internet addiction and psychological well-being (Mohit et al., 2015).

Furthermore, the current study explored the phenomenon of internet addiction in the post-pandemic era, which may have altered the contemporary relationship of internet addiction and psychological well-being due to significant changes in both the lifestyle and core intention behind the usage of the internet among university students. This possible reason behind the contradictory findings can be supported with another research done in the post-pandemic era by Raymond and Kartasasmita (2022) as their results also deduced no significant relationship between internet addiction and psychological well-being in early adulthood.

This study also found that the current level of semester emerged as a significant predictor of psychological well-being among university students which showed that an increase in familiarity with the campus environment and need for relatedness contributed towards better well-being across senior levels of the semester. Literature also supports the findings by suggesting that seniors in tertiary education, compared to juniors, have a better perception of overall well-being (Jongbloed, 2018). These findings are also in line with the study conducted by Liu et al. (2019b) which showed that anxiety and stress levels in Chinese undergraduate students are higher in the beginning of the semester and then decrease to some degree by the time they reach the senior year. These varying levels of well-being among students may be accounted for by adjustment-related problems in the beginning years; especially, when students are struggling with a new and different environment and are separated from old friends and family. Another research suggests that strain on psychological well-being is higher during the initial semester than in the third or fourth semester (Panahi et al., 2013).

The second hypothesis of our study proposed that perceived online social support predicts psychological well-being among university students. The results of this study confirm the hypothesis and are consistent with the prior literature. We found that one of the subscales of perceived online social support i.e., the family became a significant predictor of psychological well-being among university students revealing that social support from family during the transition to university and adult life buffers stress, which can contribute to greater well-being in later stages of life. The findings are in line with past literature as research by Canale et al. (2021) suggests that individuals who got higher online social support during COVID-19 had a significantly better level of positive mental health which predicted pro-social behaviors. The result was also supported by another recent study by Zhen et al. (2021) which concludes that perceived online social support from family through online disclosure, moderated perceived stress. Therefore it can be said that support from family in day-to-day online conversations is an essential support system and coping mechanism which students can use in the time of need. Another research done by Chung et al. (2021) supports our findings as they found perceived online emotional support to be associated with contentment and improved quality of life among patients with Parkinson's disease. These results further show that perceived online social support predicts overall improved psychological well-being, especially when people are struggling with disease burden and ill-health

The third hypothesis of our study proposed that internet addiction predicts psychological well-being among university students. However, the results of our study confirm the null hypothesis i.e., internet addiction does not predict psychological well-being among university students. Our findings indicate that no subscale of internet addiction predicted psychological well-being among university students. One of the reasons could be that students who participated

in this study may not have a high level of internet addiction to predict psychological well-being. The research by Blachnio et al. (2016) suggests that only university students with a high level of social media addiction report low levels of self-esteem rather than students with low levels of addiction. Moreover, the sample size of the study may not be sufficient to prove the prediction of psychological well-being among university students. However, our results are still in line with past literature as research by Alqahtani et al. (2020) also suggested that internet addiction does not predict psychological well-being and life satisfaction among students. The results are further supported by another study conducted by Hawi and Samaha, (2017) which shows that social media addiction is not related to psychological well-being and satisfaction with life. The possible reason could be that the internet might be one of the components influencing well-being and satisfaction but may not be tied enough with university student's life to predict their overall psychological well-being. Moreover, results also conclude that the cultural background and intention of using the internet determines its role in predicting and influencing psychological well-being among university students.

### ***Limitations and suggestions for future research***

The limitations of this study include that data was collected from only four universities in Lahore and the findings cannot be generalized to the whole country. Also, the study exclusively focused on undergraduate students and did not sample postgraduates. Future studies should also explore gender and regional differences among university students in order to understand differences between males and females and urban and rural dwellers with respect to psychological well-being and online social support. Finally, future research should try to utilize indigenous measures and develop local tools for better cultural context and relevancy.

## CONCLUSION

In times of rapid change, regional instability, and political uncertainty, more research is needed to better understand which support mechanisms are needed for mental health and well-being. Furthermore, the youth of the country are a significant population group, rising in numbers due to population growth, and facing immense stress due to academic pressure, peer pressure, and a dearth of future career opportunities. This study contributes to this area, by highlighting the important role of online social support in providing psychological support and well-being to university students. The findings of this research will be helpful in the domain of cyber psychology and related areas as the results contribute to new and relevant information and help to highlight the importance of developing regulations for online usage and interventions for maintaining family support for the youth. The understanding of the studied phenomenon will also help psychologists and educators to design appropriate interventions associated with online social support to improve psychological well-being among university students. Moreover, the finding may also help by providing insightful information and filling gaps in the scant internet addiction literature from South Asia.

### **Originality Statement**

This research is the original work of the authors and it has not been published anywhere else.

### **Conflict of Interest**

The authors declare that there is no conflict of interest.

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### **Ethics**

The authors gained ethics clearance from the Psychology Department, Kinnaird College and took informed consent from participants.

### **Data Availability**

Data is available from the corresponding author upon request.

### **Author contribution**

WJ collected the data, prepared the results, and wrote the first draft. ZK supervised the research, assisted in preparing the manuscript and approved the final manuscript.

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