

# Impacts of Problematic Internet use Among Adolescents of Pakistan: A Qualitative Inquiry

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## ABSTRACT

**Objective:** To explore the impacts of problematic Internet use among adolescents of Pakistan.

**Study Design:** Qualitative study (Interpretive Paradigm).

**Place and Duration of Study:** National Institute of Psychology, Quaid-e-Azam University, Islamabad Pakistan, from Nov 2020 to Jan 2021.

**Methodology:** For the indigenous exploration of problematic Internet use and its impacts on adolescents of Pakistan, eight focus group discussions were carried out online. Half of the focus group discussions were conducted with adolescents (13-19 years) and the remaining half were done with parents of adolescents. Data was transcribed and thematic analysis was done.

**Results:** Three main themes, including contributing factors to adolescents' problematic Internet use, impact of problematic Internet use, and protective factors, emerged. Majority of the themes were in line with existing literature such as contributing & protective factors of adolescents' problematic Internet use, impacts of problematic Internet use on the lifestyle, social & academic life, physical, developmental and mental health of adolescents. A few positive impacts of Internet use were also identified which were also found parallel to the previous literature. The new identified theme in the current data was identified as cultural impacts that were indigenous to Pakistani society. Codes that emerged under this theme included, degeneration of Muslim society, challenging social/religious norms, more demands for privacy, weakening of family system, generation gap, brand consciousness and acculturation.

**Conclusion:** The study provides insight to the detrimental impacts of problematic Internet use among adolescents of Pakistan, which include mental, physical and social issues, and highlights the need of effective interventions by parents as well as mental health professionals, in this regard.

**Keywords:** Adolescents, Internet use, Internet addiction disorder, Protective factors.

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## INTRODUCTION

The Internet, in recent years, has become a central part of daily life throughout the world. A latest digital report indicates that there are 87.35 million Internet users in Pakistan which represents 36.7% of the total population.<sup>1</sup> Where a healthy use of the Internet provides multiple advantages, excessive, uncontrolled and dysfunctional use of the Internet has detrimental effects on users.<sup>2</sup> People may indulge in problematic Internet use exhibiting excessive and maladaptive behaviors such as addiction to gaming, surfing, shopping, porn addiction or social networking etc.

Problematic Internet use (PIU) is defined as an individuals' inability to control his/her use of Internet causing marked distress and functional impairment.<sup>3</sup> Use of Internet for longer time intervals, isolation from real-life social networks and providing whole attention towards the activities on Internet are some of the characteristics of PIU, which can lead to social, occupational and academic impairments along with

poor dietary and sleep habits.<sup>4</sup>

With the availability and easy access of Internet, PIU has emerged as a potential risk for the physiological as well as psychological health of children and adolescents, worldwide.<sup>5</sup> The formative years of adolescence are a critical time, leaving individuals more susceptible to developing a long-term problematic dependency on virtual technology. Cognitive development, impulsivity, observing significant others in the same activity and peer pressure are generally considered crucial factors which make adolescents more vulnerable to developing PIU.<sup>6</sup> The age of initiation and level of exposure may increase the risk for this.<sup>7</sup> Prevalence estimates of PIU among adolescents of Asian countries highlights alarming figures and the range is continuously expanding.<sup>8</sup>

A number of negative consequences of PIU have been identified in adolescents in previous literature. For instance, it may lead to poor academic performance, sleep and dietary habits, engagement in risky activities, low quality of interpersonal relations, risky and self-injurious behavior, and higher risk

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of physical complaints and psychopathology in adolescents.<sup>9,10</sup>

Although some previous studies have reported a few significant impacts of problematic Internet use among adolescents of Pakistan but few have portrayed the actual magnitude of the issue. Hence, this study was aimed to explore in detail that what impacts of PIU are faced by the adolescents of Pakistan and what protective factors are there to save adolescents from the problematic use of Internet.

**METHODOLOGY**

The qualitative study using Interpretive Paradigm was carried out at the National Institute of Psychology, Islamabad Pakistan, from November 2020 to January 2021 after approval for from the Ethical Review Committee.

**Inclusion Criteria:** Adolescents of either gender, aged 13-19 years and having access to Internet and parents of adolescents, who had at least one child in the age range of 13-19 years having access to Internet, were included.

**Exclusion Criteria:** Adolescents with a past or current history of any medical or psychiatric complaints or with a past or current history of substance use or those without access to the Internet, parents having adolescents with above mentioned conditions were also excluded.

For the indigenous exploration of problematic Internet use and its impacts on adolescents of Pakistan, eight in-depth focus group discussions (FGDs) were arranged with adolescents (boys & girls) and parents

Participants for FGDs were approached through various WhatsApp groups and phone calls from different areas of Rawalpindi and Islamabad. Those willing to participate were sent an invitation via WhatsApp, to participate in the Zoom meeting at the prescribed date and timings.

The researcher facilitated the Focus Group Discussion according to the focus group guide which was prepared after extensive review of previous literature. The focus group guide comprised of semi-structured, open-ended questions to generate a discussion regarding problematic Internet use and its impacts on adolescents of Pakistan. Prior consent was taken from all participants, and they were assured their privacy and confidentiality. All FGDs were audio recorded with the participants’ informed consent. Each FGD lasted between 60 to 90 minutes. The recorded data was utilized to transcribe the verbatim, and all data was evaluated through thematic analysis.

**RESULTS**

A total of 62 participants were approached to participate in the FGDs. Nine of them refused due to their commitments, thus 53 participants joined the FGDs. Eight in-depth, online FGDs were conducted with adolescents boys and girls (n=27) and parents (n=26) of adolescents, separately. The four FGDs that were conducted with parents were further divided into two FGDs with mothers (n=13) only and two FGDs with fathers (n=13) only. The other four FGDs were arranged with adolescents boys (n=15) and girls (n=12) separately. Demographic characteristics of focus group participants, are presented in Table-I.

**Table-I: Demographic Characteristics of Focus Group Participants (n=53)**

Focus Groups	Participants (n)	Age (years) (Means±SD)	Education
<b>Mothers</b>			
FGD-1	6	45.66±6.53	Matriculation - M.Phil
FGD-2	7	46.28±6.79	Bachelor - M.Phil
<b>Fathers</b>			
FGD-3	7	46±6.48	Bachelor - PhD
FGD-4	6	43.5±5.24	Bachelor - PhD
<b>Adolescent Girls</b>			
FGD-5	6	17.16±2.04	9th Standard - B.S (Undergraduate)
FGD-6	9	16.44±1.59	9th Standard - B.S (Undergraduate)
<b>Adolescent Boys</b>			
FGD-7	6	14.83±1.83	7th Standard - FSc
FGD-8	6	14.83±1.72	7th Standard - FSc

\*FGD: Focus Group Discussion

(mothers & fathers) of adolescents, separately. Due to the COVID-19 outbreak in the country, all FGDs were conducted online via ZOOM meeting. Purposive convenience sampling technique was used to select the participants in this study.

Data obtained through FGDs was utilized to transcribe the verbatim. For qualitative data analyses, Braun & Clark’s thematic analysis approach was used.<sup>11-13</sup> After familiarizing with the data, codes were generated through the verbatim. The codes were

further clustered into meaningful themes and sub-themes. These themes and sub-themes indicate the findings of all FGDs.

The themes that emerged through thematic analysis include contributing & protective factors of adolescents' PIU, impacts of PIU on lifestyle, social & academic life, physical, developmental and mental health of adolescents. A few positive impacts of Internet use and cultural impacts of adolescents' PIU were also identified. Those cultural impacts were indigenous and specific to the Pakistani culture. The codes emerged under this theme included, degeneration of Muslim society, challenging social/religious norms, more demands for privacy, weakening of family system, generation gap, brand consciousness and acculturation. The entire analysis is clustered under the data-driven themes, as presented in Table-II.

**Table-II: Themes and Sub-Themes of Problematic Internet Use**

Themes	Sub-Theme
Contributing Factors of Adolescents' PIU	Family Factors Academic Factors Environmental / Situational Factors
Impacts of PIU	Lifestyle Impacts Social Life Impacts Physical & Developmental Health Academic Life Emotional Health Mental Health Cultural Impacts Positive Impacts
Protective Factors	Family Factors Environmental Factors

**Theme-I: Contributing Factors of Adolescents' Problematic Internet Use**

Parents of adolescents discussed more about the contributing factors to the problematic Internet use (PIU) of their children than the adolescents themselves. They shared a number of contributing factors consisting of i) family factors, ii) academic factors and iii) environmental/situational factors as the primary contributors to the problematic Internet use of adolescents.

Family factors as discussed by the majority of parents and some of the adolescents as well included observing parents or other significant elders in the family at a young age makes children more attracted towards excessive usage of Internet at a very young age. As one father shared, "Hum dono maan baap bethey hote hein aur apne apne mobile pe lage hote hein, bacha ussi chiz ko feel kerta hey aur ussi kam ko

kerta hey jo parents ker rahe hein." Besides this, if any one or both parents are too busy to give time to their children then they themselves encourage their children to use the Internet which eventually makes this a habit. Peer influence/pressure is another important factor highlighted by most children and some parents during the discussion. If the majority of their friends or cousins are into online games or active social media users then adolescents would feel inferior for not being part of the group and thus, would compel their parents to allow them to do so.

Parents also highlighted academic and environmental factors which were not mentioned by the adolescents during their FGDs. Academic factors included IT education introduced to children during early school years, handing over adults' devices to children to watch cartoons, learn rhymes or other educational material and shift of physical academic activities towards online education are considered to be the main factors which play a vital role towards instigating curiosity and interest of adolescents towards such online applications, which may be inappropriate to their age and addictive in nature.

Environmental or situational factors were also a concern of parents, which were not highlighted in the discussion by adolescents, with the COVID-19 being a prime concern. This pandemic created online dependence, whether it be for academics, social life or recreational activities, making adolescents prone to PIU. Parents also found it difficult to limit their children's Internet use as they had to arrange separate devices for every child in the family so that they could resume their online classes or work-related activities simultaneously. This in turn, led the children towards more independent online activities. They took more liberty to stay connected with peers through online social networking or online multiplayer games. Some parents also shared that during online classes, children often kept switching the window of online class with online games, videos of their own interest or chatting with friends thus, losing their interest in academics.

The second environmental contributor discussed by the parents was the inability or limited access to proper outdoor sports, playgrounds and other healthy outdoor activities for adolescents in Pakistan, thereby allowing children to indulge in with Internet devices and online games at home. Moreover, easy access to Internet-related gadgets like smartphones, tablets, laptop etc., availability of Internet connection 24/7 at home and glamorization of excessive Internet use

through media were the other contributing factors discussed by some of the parents. A few of the parents summed up that there were multiple factors contributing to adolescents' problematic Internet use rather than any single one.

### **Theme-II: Impacts of Problematic Internet Use**

Impacts of PIU use were discussed in detail during the FGDs. According to parents and adolescents, impacts of problematic Internet use were visible in all major areas of daily functioning including impacts on lifestyle, social & academic life, physical, developmental and mental health of adolescents. According to them, lifestyle of adolescents was largely being changed due to their heavy reliance on Internet. Their sleep duration as well as quality of sleep decreased markedly, being much lesser than the required average of 7-8hrs. They tend to keep checking their cell phones during night which obviously affects their sleep quality and many times they remain awake all night to stay online. Due to the continuous disturbed pattern of sleep, they tend to get up late in the morning and skip breakfast. Skipping meals especially breakfast and delaying other meals is also common among adolescents due to their excessive use of Internet. In addition to this, adolescents often keep their Internet devices with them during meals to continue with their online activities. Their food choices are being inspired through online ads presented on their devices, leading to selective diet preferences which were unhealthy, and didn't fulfill their nutritional needs. According to parents, their children tend to avoid typical healthy meals of Pakistani society like roti salan rather they demand junk and fast food in their routine meals. They are getting more and more brand conscious for food and other stuff instead of being health conscious. One parent highlighted that her teenage children select soft foods which they can swallow easily without even chewing it properly so that it cannot hinder their attention from online activities. Similarly, their water intake is less than their requirement as they often forget to take water during long hours spent on the Internet. Besides this, excessive Internet use is promoting sedentary lifestyle among children and adolescents. They keep sitting in front of screen for long hours continuously in unhealthy postures and avoid routine household chores so as to not interrupt between their online activities. They are not active in any healthy physical

activities or outdoor games which is increasing rates of obesity in this age cohort.

Social and academic life is also being compromised due to PIU among adolescents. Low academic achievement, social withdrawal along with decreased family interaction, detachment from the surrounding and weak family bonding are also discussed by both parents and adolescents themselves. One father, who was also the head of a private college figured out another social issue of increased runaway behavior which he observed in his teenager students. According to him, the root cause behind runaway behavior is mainly the access of youngsters to advanced and inappropriate information gathered through Internet which was often beyond the capacity of their immature minds. Abusive language and loose talk was also observed among adolescents who were frequent users of multiplayer online games with strangers or foreign players.

Impacts on physical, emotional and psychological health were largely discussed by both cohorts in their respective FGDs. Headaches, eyesight problems, under-eye dark circles, skin allergies and eye infections were common physical health problems, due to PIU among adolescents. According to some of the mothers, children are getting mature earlier and facing serious hormonal issues due to the beyond-age knowledge they are getting through Internet. Aggression, mood swings, over reactivity and annoyance over parental boundaries are common emotional problems observed among adolescents with PIU. Furthermore, a lot of mental health problems were also discussed openly during FGDs as observed by the parents and experienced by majority of the adolescents themselves due to their excessive Internet use. These problems included the symptoms of depression (with low mood, loss of interest, and preference for isolation), anxiety, attention deficit, hyperactivity, obsessions, intolerance, irritability, argumentativeness, numbness, loss of confidence, behavioral addiction or dependency on Internet and nightmares related to the online violent games.

A few positive impacts of Internet use were also identified by many of the parents and majority of the adolescents during the FGDs. These included up-to-date knowledge on almost every topic, more advanced in knowledge as compared to their parents, scientific orientation, superior IT skills, mature thinking and reasoning, staying home (away from outside threats), earning through Internet related videos and programs,

learning of new skills, high motivation and easy ways to deal with life issues.

One newly emerged theme was identified, which was cultural impacts that were indigenous and specific to the Pakistani culture. These were discussed only by parents. The adolescents did not mention any such impacts in their discussions. According to the parents, prominent impacts on Pakistani culture due to the excessive Internet use by the young generation can be seen in the form of deterioration in the Islamic practices in the society as children keep themselves busy into online activities and don't give proper time and attention to their religious practices like Namaz, Roza etc. Teenagers demand more privacy to continue their online activities independently. Parents feel that adolescents are becoming more argumentative with them to support their own ideas developed on the basis of knowledge gained through Internet which is often insufficient and inappropriate. They not only challenge the social and religious norms but also question the boundaries set by their parents. This in turn, is weakening strong family ties and promoting generation gap in a collectivist society like Pakistan. Another significant cultural impact as discussed by a few parents was acculturation. As the young generation is getting more addicted to online videos and games with foreign players so they tend to adopt their language and culture rapidly which is mixing with and affecting their own cultural values and traditions.

### **Theme-III: Protective Factors**

Parents also discussed about a few of the protective factors during their discussions which was not mentioned by adolescents in their FGDs. These protective factors include family factors and environmental factors. Some parents emphasized that parental observation/monitoring on children's Internet use, setting limits and parental control can reduce adolescents' time spent online. While a few parents highlighted proper training and upbringing of children by imparting religious and social values, spending quality time with children, parents' open communication with children as protective factors for adolescents' problematic Internet use. Parents' up-to-date knowledge regarding technology and Internet applications was another factor highlighted by some of the parents which can protect young generations from the negative impacts of PIU.

## **DISCUSSION**

This study indigenously explored health and psychosocial impacts along with the contributing and protective factors of problematic Internet use among adolescents of Pakistan. Majority of the themes that emerged were found in line with the existing literature such as contributing and protective factors of adolescents' problematic Internet use, impacts of PIU on lifestyle, social & academic life, physical, developmental and mental health of adolescents.

Contributing factors included family, academic and situational factors. Family factors like parental neglect, lack of support and communication between the family members and modeling of parental excessive use of Internet were highlighted as major contributors to adolescent's PIU. In a systematic literature review, Nielsen et al. 14 also found negative parenting and negative family dynamics including, neglect, authoritative parenting, parental PIU, as risk factors for adolescents' PIU whereas, positive parenting and family dynamics such as support, attachment and interaction were found as protective factors for adolescents' PIU. Similarly, family factors like parental involvement, communication, monitoring and proper training of children by the parents were found to be significant protective factors for adolescents' PIU, in this study. A study in Taiwan indicated that healthy parent-child relationship is negatively correlated with children's Internet addiction.<sup>15</sup> Family dysfunction was also found positively correlated with adolescents' mobile phone addiction.<sup>16</sup>

Other contributing factors to adolescents' PIU, as highlighted in the study were academic factors like IT education during early school years, shift of physical educational activities to online education during COVID-19 and situational factors such as peer pressure, availability and easy access to Internet devices and lack of proper outdoor facilities for adolescents. Similarly, Liu *et al.*<sup>17</sup> in a recent study indicated that adolescents spend more time online during COVID-19 for academic and recreational purposes which in turn lead them towards the development of PIU as well as academic disengagement. Peer pressure was also highlighted in existing literature as a contributor to adolescents' PIU.<sup>18</sup> Lack of proper and safe outdoor sports or recreational facilities for children and adolescents was another concern of parents so they gave their children Internet devices at home.



Majority of the impacts of PIU were found similar to those in existing literature from other cultures. These included drastic changes in lifestyle such as reduced sleep, poor dietary habits, lack of physical activity, sedentary behaviors, reduced or poor social interaction, low academic achievement, physical and developmental health impacts like weak physical fitness, developing allergies, eyesight problems, under-eye dark circles, headache, hormonal problems and early maturity due to the excessive and inappropriate use of Internet among adolescents.<sup>19,20</sup> A wide number of emotional and mental health impacts on adolescents similar to the previous literature, were also highlighted during the study which included aggressive tendencies, mood swings, over reactivity, irritability, attention deficit, hyperactivity, intolerance, argumentativeness, obsessions, loss of confidence, nightmares, behavioral addiction, anxiety and depression.<sup>21-22</sup>

A few positive impacts of adolescents' Internet use were also identified and some of them were found parallel to the previous literature.<sup>23</sup> These positive impacts included gaining more and advanced knowledge on almost every area of life, scientific orientation of adolescents, superior knowledge and IT skills as compared to parents and the previous generations which gives them mature thinking and reasoning, learning new or advanced skills and high motivation. Staying on Internet keeps adolescents safe from outside threats. They are earning through various applications of Internet and Internet provides them an easy way of life as they can find a quick solution of daily life hacks through browsing on Internet.

The new identified theme in the current data was identified as cultural impacts that were indigenous and specific to the Pakistani culture. Codes that emerged under this theme included, degeneration of Muslim society, challenging social/religious norms, more demands for privacy, weakening of family system, generation gap, brand consciousness and acculturation. According to parents in this study, excessive and problematic Internet use by the adolescents is keeping them away from their religious and social values like observing prayers and fasting in the holy month of Ramzan. Adolescents are becoming more accustomed to using the Internet until late hours, leading to sleeping during day. This leads to neglect in offering prayers on time and reciting the Quran. Adolescents now often challenge religious and social norms, boundaries set by their parents after

encountering the information provided on the Internet which is usually inappropriate or beyond their mental capacities. They are demanding more privacy within the house where they can use the Internet separately or independently. This all seems to weaken the family system which has always been a strength of a collectivist society like Pakistan. At the same time, many of the adolescents who use Internet excessively are fond of watching videos, plays and movies of other cultures on Internet, and are rapidly adopting other cultures' language and values which in turn is affecting their native or national language and cultural values drastically. All the above-mentioned cultural impacts were indigenously explored in this study, which were pertinent to the Pakistani society. These are in tune with a study on undergraduate students of Pakistan, which found weakening of family ties in order to spend more time with online friends.<sup>23</sup>

Moreover, indulging children in proper outdoor physical activities like sports or exercise and imparting religious values and focusing on their spiritual growth along with supportive parenting were considered as protective factors for adolescents' PIU, as discussed by some of the parents in this study. Similar findings were obtained in a recent study where restricted Internet use was found to be associated with having a hobby and developing alternate activities offline.<sup>24</sup> All these protective factors were regarded useful to safeguard Pakistani youth from the problematic use of Internet.

### CONCLUSION

The study provides insight to the detrimental impacts of problematic Internet use among adolescents of Pakistan, which include mental, physical and social issues, and highlights the need of effective interventions by parents as well as mental health professionals, in this regard.

**Conflict of Interest:** None.

### Authors Contribution

Following authors have made substantial contributions to the manuscript as under:

KS: Conception, study design, drafting the manuscript, approval of the final version to be published.

KS & NKR: Data acquisition, data analysis, drafting the manuscript, critical review, approval of the final version to be published.

KS & NKR: Data interpretation, critical review, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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