Exploring Online Preferences of Pakistani Adolescents with reference to their Gender and Age Group

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ABSTRACT

Objective: To explore online preferences of Pakistani adolescents with reference to their gender and age group.

Study Design: Qualitative study (Interpretive Paradigm)

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

Methodology: To explore online preferences of Pakistani adolescents, eight online focus group discussions (FGDs) were conducted. Four of the FGDs were carried out with adolescents (13-19 years) and the remaining four were conducted with parents of adolescents. Data was transcribed and results were calculated employing content analysis.

Results: Online preferences among adolescents of Pakistan were shared in terms of frequently used internet applications, during FGDs. All the shared applications were grouped into four major categories and top three most frequently used applications under each category were found as follow.[1] Applications used for educational purpose: {i. Google/Wikipedia, ii. MS Teams, iii. Zoom}.[2] Applications used for recreational purpose: {i. YouTube, ii. Netflix, iii. SoundCloud}.[3] Applications for communication purpose: {i. WhatsApp, ii. Instagram, iii. Facebook}.[4] Online gaming {i. PUBG & Online Sports (Cricket, Fifa, Ludo etc.) ii. Among US & Call of Duty, iii. Grand Theft Auto}. Considerable, gender and age-related differences were also identified for the online preferences of adolescents.

Conclusion: The study provides insight regarding online preferences among adolescents of Pakistan and highlights the need of further inquiry as well as effective interventions by the parents as well as professionals, in this regard.

Keywords: Adolescents, Focus group discussion, Frequent, Internet applications, Online preference.

INTRODUCTION

In the contemporary digital age, the internet is significantly impacting everyday life imparting communication, work, and information access. Particularly after COVID-19, people from all walks of life especially youth is revolving around the online world. Pakistan has also seen a notable increase in internet usage due to affordability of devices and easy digital access. This has transformed how Pakistani youth engage with the online world, influencing their socializing, entertainment, education, and professional activities.[1,2]

According to a recent estimate, global internet adoption rose by 3.7%, reaching 5.30 billion users, or 65.7% of the world's population. Active social media users increased to 4.95 billion, making up 61.4% of the population. Considerable differences were also observed in internet activity around the globe, illustrating that South Africans spend the most time online at 9.5 hours per day. Though, culture plays an important part in shaping internet activities, but the average age of the population is also a key factor. Research findings reveal that overall, average daily internet time tends to decrease with age. Adolescents and young adults spend more time online as compared to the other age groups.[3] Empirical data indicates that males have higher internet consumption than females but the purpose of engagement varies across genders. Females are more active on social media, while males prefer playing esports.[4,5]

Social media has given a rise to the average use of Internet and continues to grow at a much faster pace.[6] The latest figures highlight that over 9 in 10 internet users are active on social media, worldwide.[7] However, prevalence of internet consumption in Pakistan mirrors global trends. As of January 2023, there were 87.35 million (36.7%) internet users and

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71.70 million (30.1%) active social media users, in the country. The rate of internet and social media consumption is continuously at rise, having adolescents as the major stakeholders.[6]

Emergent research on excessive internet use highlights the need to differentiate between the medium of Internet and its specific applications. Previous findings on a large sample of adolescents revealed that social networking and online gaming are linked to compulsive Internet use. Moreover, changes in online gaming were most strongly correlated with changes in compulsive Internet use, over time for the longitudinal cohort.[8]

Internet usage and its applications have deeply penetrated into Pakistani society, mirroring global trends, enhancing daily life with sophistication, flexibility, and accessibility. Limited available evidence suggests that Facebook and WhatsApp are the most preferred social networking sites among Pakistani youth.[9,10] A few reports identify PUBG, CS:GO, Valorant, Dota 2, and Fortnite as popular multiplayer games, alongside single-player options like Tekken, King of Fighters, and Need for Speed, among the preferred e-sports of Pakistani youth.[11] The available information still lacks comprehensive empirical evidence regarding online preferences of Pakistani adolescents with reference to their gender and age-groups. To bridge this gap in the literature, present study aims at exploring the online preferences of adolescents, shedding light on the digital experiences of Pakistani youth.

METHODOLOGY

This qualitative inquiry employing an interpretive paradigm was conducted at the National Institute of Psychology, Islamabad which took place from November 2020 to January 2021. The aim was to investigate the online preferences of Pakistani adolescents with reference to their gender and age group. Eight in-depth focus group discussions (FGDs) were organized, separately engaging adolescents (boys & girls) and parents (mothers & fathers of adolescents). Among the parents, four FGDs were conducted—two with mothers and two with fathers, totaling twenty-six participants (13 mothers and 13

fathers). The remaining four FGDs were conducted separately with adolescent boys and girls, involving a total of twenty-seven participants (15 boys and 12 girls) in their respective FGDs. Due to the COVID-19 outbreak, all FGDs were conducted online via Zoom meetings. The study employed purposive convenience sampling to select participants. Ethical approval was obtained from the Ethical Review Committee of the National Institute of Psychology.

Inclusion Criteria: Adolescents of both genders, in the age range of 13 to 19 years and having access to Internet were included in the study. Parents of adolescents, who had at least one child in the age range of 13 to 19 years having access to Internet, were also included in the study.

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 internet were excluded from the study. Parents having adolescents with above mentioned conditions were also excluded from the study.

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 discussion of focus groups according to the focus group guide which was prepared after extensive review of previous literature. Focus group guide consisted of semi-structured, open-ended questions designed to stimulate discussions about online preferences among adolescents of Pakistan. Consent was obtained from all participants in advance, assuring them of privacy and confidentiality. Prior approval was sought from all participants for audio recording of all FGDs. Each focus group session had duration of approximately 30 to 45 minutes. At the end of each session, participants were acknowledged and appreciated for their

cooperation. The recorded data of FGDs was utilized to transcribe the verbatim. Content analysis through inductive reasoning approach was acquired to reach the findings. After careful examination and back n forth comparison of the qualitative data, relevant themes and categories were obtained. Frequencies and percentages of all the relevant categories were calculated and presented in the results.

RESULTS

Overall, fifty-eight participants were invited to participate in the FGDs. Out of the 58 invited participants, five declined due to personal commitments, and rest of the 53 participants joined the focus group discussions (FGDs). Eight in-depth online FGDs were conducted with parents (mothers and fathers) and adolescents (boys and girls) separately. The demographic characteristics of the focus group participants are detailed in Table-I.

Table-I: Demographic characteristics of focus group participants (n=53).

No. of Focus Gps	No of Participants	Age (Years) (Means± SD)	Education
Mothers			
FGD-1	6	45.66± 6.53 Years	Matric/O-level – M.Phil
FGD-2	7	46.28± 6.79 Years	Bachelor – M.Phil
Fathers			
FGD-3	7	46±6.48 Years	Bachelor – PhD
FGD-4	6	48.50± 5.24 Years	Bachelor – PhD
Adolescent Girls			
FGD-5	6	17.16± 2.04 Years	9th Standard/O-level – B.S
FGD-6	9	16.44±1.59 Years	9th Standard/O-level – B.S
Adolescent Boys			
FGD-7	6	14.83±1.83 Years	7th Standard – FSc/A-level
FGD-8	6	14.83±1.72 Years	7th Standard – FSc/A-level

Online preferences of Pakistani adolescents were shared by adolescents themselves and parents of adolescents during their respective focus group discussions. Online preferences were shared in terms of the most frequently used Internet applications by the adolescents. Each of the shared application was considered a separate unit and assigned a particular code. All the coded applications shared by the participants, were further grouped into four major categories based upon their common characteristics. A committee of multi-investigator including two independent investigators was requested to review the coding and categories independently, along with the researcher. Only those themes and categories were finalized on which there was at least eighty percent consensus among all the investigators. Finally, four categories emerged which includes; (i) Applications used for educational purpose, (ii) Applications used for recreational purpose, (iii) Applications for communication (social networking) purpose, and (iv) online gaming. The frequency and percentages of responses for each application were calculated by all the investigators independently. Top three most frequently used applications under each of the four major, above mentioned categories were highlighted after the consensus of all the investigators. Top three most frequently used Internet applications are presented in Table-II.

Table-II: Top 3 Most Frequently used Internet Applications (n=53).

Top 3 Frequently Used Applications	Parental view (n=26) f (%)	Adolescents' view (n=27) f (%)
For Educational Purpose		
Search Engines (Google/Wikipedia)	2(8%)	13(48%)
MS Teams	2(8%)	7(26%)
Zoom	2(8%)	5(18%)
For Recreational Purpose		
YouTube	11(42%)	16(59%)
Netflix	5(38%)	3(11%)
SoundCloud	1(4%)	2(7%)
For Communication (Social networking) Purpose		
WhatsApp	18(69%)	21(78%)
Instagram	11(42%)	19(70%)
Facebook	9(35%)	12(44%)
Online Gaming		
i(a). PUBG	9(35%)	6(22%)
i(b). Online Sports	9(35%)	7(26%)
ii(a). Among US	4(15%)	2(7%)
ii(b). Call of Duty	3(11%)	3(11%)
iii. Grand Theft Auto	1(4%)	3(11%)

During the FGDs, adolescents themselves enthusiastically discussed more about the applications they frequently use for education, recreation and communication purposes as compared to the FGDs with parents of adolescents. While discussion regarding adolescents' frequently played online games generated more responses from the parents' side as compared to the adolescents themselves.

The closer view of the findings of FGDs indicates that; For educational use, 8% of parents and 48% of adolescents mentioned search engines like 'Google/Wikipedia', 8% of parents and 26% of adolescents highlighted 'MS Teams', whereas, 8% parents and 18% of adolescents revealed 'Zoom' as the frequently used educational applications among adolescents.

For recreational use, 42% of parents and 59% of adolescents mentioned 'YouTube', 38% of parents and 11% of adolescents highlighted 'Netflix', whereas, 4% parents and 7% of adolescents revealed 'SoundCloud' as the frequently used recreational applications among adolescents.

For communication (social networking) use, 69% of parents and 78% of adolescents mentioned 'WhatsApp', 42% of parents and 70% of adolescents highlighted 'Instagram', whereas, 35% parents and 44% of adolescents revealed 'Facebook' as the frequently used social networking sites among adolescents. For example, an eighteen years old boy mentioned during FGD "classes ke leye jo hamein provide kia gia hey platform wo Zoom hey, Google Meet hey aur Teams hey. Inn per alternate days per alternate classes hoti hein. Games ka time nahin milta. Social media ka thora time beech mein nikal lete hein thora mind fresh kerne k leye. Iss mein Facebook aa jata hey, Instagram aa jata hey, Youtube aa jata hey videos k leye, iss terha iss mein time pass ho jata hey."

In online gaming, 35% of parents and 22% of adolescents mentioned 'PUBG', 35% parents and 26% adolescents narrated various online sports (such as Cricket, FIFA, Ludo etc. which were grouped under the category of online sports). 'Among US' and 'Call of Duty' both games were mentioned with equal frequency as 22% of respondents (15% parents & 7% adolescents) highlighted 'Among US'. Similarly, 22% of respondents (11% parents & 11% adolescents) stated, 'Call of Duty' as the frequently played game by the adolescents. Moreover, 4% parents and 11% of adolescents revealed 'Grand Theft Auto' as the frequently played online game by the adolescents. During FGD, a fourteen years old boy mentioned his preferences of online games that "I have interest in Cricket, I play a lot of Cricket games, I play Fortnite, then I play GTA and a lot of other games. It was all about thrilling and action games. They also include a lot of sports like ball games and Tennis. That's my main attraction."

Focus group discussions with parents and adolescents also revealed gender and age-related differences in online preferences of adolescents. These differences include;

Older adolescents (16 – 18 years), have more access to the separate personal devices (particularly smartphones) for internet use whereas, younger adolescents (13 – 15 years) use internet devices of parents or other elder members in the family.

Younger siblings in a family start using internet at a relatively earlier age as compared to his/her elder siblings.

Young adolescents (13 – 16 years) are more interested into online games while older adolescents (17-19 years) are more frequent users of social networking.

Adolescent boys more frequently play online games as compared to adolescent girls whereas girls are more frequent users of online recreational applications (e.g., YouTube or Netflix etc.) and social networking (e.g., WhatsApp, Instagram etc.).

Young adolescent boys (13 - 15 years) more frequently play action games with violent content (e.g., 'PUBG', 'Among US' etc.), boys in their middle adolescents (16 -17years) more frequently play online sports (e.g., 'FIFA', 'Cricket' etc.) while older adolescents (18 - 19years) prefer card games (e.g., 'ONO') and social networking over other online applications.

In total, twenty-one preferable online games were shared by the adolescents and parents of adolescents

during all FGDs. Eighteen out of those twenty-one games were found as multiplayer games. It was also found that adolescent boys prefer more online multiplayer games as compared to adolescent girls. The calculated ratio in preference of online multiplayer games was as follow (2.5 boys : 1girl).

Fifteen out of the twenty-one preferred online games were found having violent content. It was also found that adolescent boys prefer more online games with violent content as compared to adolescent girls. The calculated ratio in preference of online violent games was as follow (5 boys : 1girl).

Adolescent girls get more easily convinced if asked to minimize or leave Internet use whereas adolescent boys show more aggression over such restrictions.

Limits (in the form of parental monitoring or checks) for girls' Internet use and owning personal devices for Internet is more prevalent as compared to such limits for boys.

DISCUSSION

This study indigenously provides insight into the online preferences of Pakistani adolescents along with gender and age-related differences for their online preferences. All the Internet applications shared by the adolescents themselves as well as by the parents of adolescents during FGDs were grouped into four major categories. These categories were formed on the basis of common characteristics of the shared applications under each category. Top three most frequently highlighted applications under each category were selected to present in the findings. Four main categories were emerged as follow; 1. Applications used for educational purpose, 2. Applications used for recreational purpose, 3. Applications for communication purpose, and 4. Online gaming.

For educational use, 'Google' or 'Wikipedia' both search engines were found with the highest shared frequency of 8% by the parents of adolescents and 48% of adolescents themselves. 'MS Team' was found as the second most frequently used application for educational purpose of adolescents as 8% of parents and 26% of adolescents highlighted this

application. 'Zoom' was found as the third most frequently used application for educational purpose of adolescents with the response of 8% parents and 18% of adolescents. Keeping in mind, that the time of focus group discussions was during the 2nd wave of COVID-19 in the country and most of the educational activities were going online via 'MS Team' and 'Zoom' meetings. Therefore, that situation might be one of the reasons for the higher frequencies of those applications at that time. Findings of a survey also discovered that the internet usage surged during the lockdowns, due to Covid-19.[12] However, the popularity of these applications may change with the passage of time. The Covid-driven shift in online work stimulated an increase in the use of applications that enhance the work-efficiency. Among various work-from-home platforms, Zoom was the most popular and widely used platform in Pakistan during 2022.[13]

For recreational use, 'YouTube' was found as the top most frequently used internet application by the adolescents as 42% of parents and 59% of adolescents mentioned 'YouTube' in the frequent use of adolescents. YouTube, on the other hand, also regarded as one of the most favored video protocols of the year 2022, in pakistan.[13] 'Netflix' was rated as the second most frequently used internet application by the adolescents during FGDs, with the opinion of 38% of parents and 11% of adolescents. Whereas, 'SoundCloud' stood third in the row of the most frequently used internet applications for recreation, by the adolescents as 4% parents and 7% of adolescents mentioned 'SoundCloud' in the regular use of adolescents. Previous literature mentioned electronic media as the most frequently used platform by high school students in Pakistan, primarily for entertainment purposes like music, sports, dramas, and comedy. Social media is consumed preferably during the wee hours by the students. It was further revealed that students use electronic devices in the form of Android phones, more for entertainment than for educational purposes.[14]

Internet applications in adolescents' use – for communication (social networking) purpose – was the

most densely responded area during FGDs. Among the applications for communication purpose, 'WhatsApp' attained first place in the top most frequently used internet applications with the responses of 69% of parents and 78% of adolescents. 'Instagram' stood second with the responses of 42% of parents and 70% of adolescents. Whereas, 'Facebook' came up third in row with the responses of 35% parents and 44% of adolescents, as the frequently used social networking sites among adolescents. However during the year of 2022, Internet traffic trends across Pakistan, indicated that Facebook emerged as the predominant social media platform, followed by WhatsApp.[13]

Online gaming was also one of the categories where adolescents keenly exhibited their interest. 'PUBG' was found as the top most frequently played online game by the youth inland, as 35% of parents and 22% of adolescents mentioned 'PUBG' as regularly played by the adolescents. 35% parents and 26% adolescents described various online sports (such as Cricket, FIFA, Ludo etc. which were grouped under one category of online sports). Hence, online sports were also ranked as the top most frequently played online games as all the shared online sports were grouped under this single category. 'Among US' and 'Call of Duty' both games were ranked as the second most frequently played online games as 22% of respondents (15% parents & 7% adolescents) highlighted 'Among US'. Similarly, 22% of respondents (11% parents & 11% adolescents) mentioned, 'Call of Duty' as the frequently played game by the adolescents in Pakistan. Furthermore, 'Grand Theft Auto' was ranked as the third most frequently played online game by the adolescents as 4% parents and 11% of adolescents revealed 'Grand Theft Auto' as frequently played by the youth in the country.

Although, a lot of research worldwide is being conducted to explore the nature.[15,16] and correlates[17,18,19] of online gaming among adolescents but very rare evidence is available to pinpoint online preference in terms of the most frequently played online games by the adolescents. The five most popular games among American teens include rhythm games (Guitar Hero and Dance Dance Revolution), puzzle/card games (Solitaire), sports games (Madden), and first-person shooter games (Halo). 'Grand Theft Auto' was also found in the top ten most frequently played online games by the American adolescents.[20] 'PUBG' and 'Fortnite' both multiplayer games have been found very popular in Pakistan. It was also explored that the lockdown during COVID-19, aggravated the popularity of these games due to excessive spare time, among youngsters in the country.[21] Regarding online games, it was also observed that middle adolescents are the major consumers in Pakistan. Facebook games (SNGs) like Farmville, Cityville, Candycrush, Fruitninja had been found as the most popular online games in the last decade in Pakistan. The second most played online games were massively multiplayer online games (MMO) followed by first person shooter games (FPS). Females and males online gamers have different gaming preferences. Males outnumber females in all types of games. Moreover, females played Facebook games and other social network games more than all the other types of online games.[22]

Focus group discussions with parents and adolescents in the present study also highlighted similar, interesting gender and age-related differences for the online preferences of Pakistani adolescents. Those differences included;

1. Older the adolescents (16 – 18 years), the more access they have to the separate personal devices (particularly smartphones) for internet use whereas, younger adolescents (13 – 15 years) use internet devices of parents or other elder members in the family.

2. Younger siblings in a family start using internet at a relatively earlier age as compared to his/her elder siblings, which is due to their observation and sharing of internet devices with elder siblings at a young age

3. Young adolescents (13 – 16 years) are more interested into online games while older adolescents (17 – 19 years) prefer social networking over other online applications. A substantial amount of literature has previously demonstrated that young adults or teen agers frequently use the internet more than any other age group, for recreation or socializing with friends and strangers.[23] Previous literature also indicated that, the younger the player, the longer time they spent on playing online games.[24]

4. Adolescent boys more frequently play online games as compared to adolescent girls whereas girls are more frequent users of online recreational applications (e.g., YouTube or Netflix etc.) and social networking. Differential Correlates of Problematic Use in Internet Gamers versus Generalized Internet Users also exhibited similar kind of gender differences among adolescents where chatting and social networking most strongly predicted problematic Internet use in girls, while gaming was the strongest predictor in boys.[25]

5. Preferences of online applications and gaming do change by the age of adolescents. Young adolescent boys (13 - 15 years) more frequently play action games with violent content (e.g., 'PUBG', 'Among US' etc.), boys in their middle adolescents (16 -17years) more frequently play online sports (e.g., 'FIFA', 'Cricket' etc.) while older adolescents (18 - 19years) prefer card games (e.g., 'ONO') and social networking over other online applications.

6. In total, twenty-one preferable online games were shared by the adolescents and parents of adolescents during all FGDs. Eighteen out of those twenty-one games were found as multiplayer games. It was also found that adolescent boys prefer more online multiplayer games as compared to adolescent girls. The calculated ratio in preference of online multiplayer games was as follow (2.5 boys : 1girl).

7. Extensive search regarding the content of the preferred online games by the adolescents revealed that fifteen out of the twenty-one preferred online games have violent content. It was also found that adolescent boys prefer more online games with violent content as compared to adolescent girls. The calculated ratio in preference of online violent games was as follow (5 boys : 1girl). Highly significant differences has also been found previously where adolescents boys outweighed adolescents girls in online gaming.[26,27]

8. Adolescent girls get more easily convinced if asked to minimize or leave Internet use whereas adolescent boys show more aggression over such restrictions.

9. Limits (in the form of parental monitoring or checks) for girls' Internet use and owning personal devices for Internet is more prevalent as compared to such limits for boys. As a father mentioned during FGD "ofcourse baity aur beti ka aik difference hota hey, mein abhi iss haq mein nahin hun keh mein beti ko personal mobile le ker doon." These findings high lights the typical Patriarchal South Asian culture where boundaries and limits are set to be narrower even in the usage pattern of Internet, for females as compared to for boys.

The popularity of internet applications can evolve rapidly, and new platforms may gain prominence depending on the recent trends prevailing in the country, at the time of investigation. However, the popularity of these applications may change with the passage of time. The empirical data based upon the online preferences of Pakistani adolescents, presented in this study has wide practical implications

for parents, educators, practitioners and policy makers in the country. Considering youth as the future of the country, it is important for all the stakeholders to know about the preferences and engagement of adolescents. If a significant number of teenagers are spending much of their quality time into social media engagements or violent games for instance, then it is also important to know that what kind of impacts these engagements may have on their physical or mental health, familial or social life, academic or professional performance? Parents and educators need to keep a check on the online preferences of children and adolescents in order to facilitate and engage them into more useful online as well as physical activities. Policy makers can also play a key role in this regard as there should be ban on the online violent and inappropriate content which is gaining popularity and promoting violence among youth in the country. Information Technology (IT) sector should be encouraged to prepare safe, interesting and age-appropriate content for the youth of Pakistan. Such content in the form of online games, quizzes or social networking should be challenging as well as enhancing their mental capabilities. There should be more opportunities for safe outdoor recreational and physical activities to channelize the potentials and energies of adolescents into a positive direction.

LIMITATIONS OF STUDY

As with all research, this study is also not without its limitations. While it aimed to identify online preferences of adolescents of Pakistan, the findings may not be applicable to young children or the adult population. Additionally, the data is confined to what participants chose to share based on their experiences which might be under influence of social desirability. To mitigate subjectivity concerns, separate focus group discussions were conducted with parents of adolescents, introducing a multi-informant approach. Besides this, the study findings have limited validity. To overcome researcher's biases and address validity issues, a committee of multi-investigator including two independent investigators was requested to review the themes and categories independently, along with the researcher. Finalization of all themes and categories was achieved after eighty percent consensus among all the investigators. Although, qualitative findings of this study has limited generalizability but they offer a comprehensive understanding of the prevailing online preferences among

adolescents in the country with reference to their gender and age group.

CONCLUSION

This study indigenously explored the online preferences of Pakistani adolescents with reference to their gender and age group. The findings of the study justified the need for further quantitative inquiry with the same sample and also with different sample of children and adults. This study opens avenue of further research in the field and has significant implications in the areas of education, health and social psychology. Findings of the study also highlight the need of effective measures and intervention programs for youth in the country.

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