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Children of the Screen: Digital Life and Mental Well-being

Rehan Shakeel [a]

Visiting Lecturer, Department of Public Health, University of the Punjab, Lahore, Punjab, Pakistan,

(res_ahm@hotmail.com)

Sadaf Ahmed [b]

Faculty of Allied Health Sciences, University of Lahore.

(sadafahmad255@gmail.com)

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Corresponding Author: ***Rehan Shakeel***

ABSTRACT

The sudden explosion of the digital technologies has increased the pluses of childhood experience in the world drastically. Children today are growing up surrounded by screens from their smartphone, tablet, computer, and their television, which can affect their cognitive, emotional, and social development. While being a source of educational opportunity, creativity and connectivity, digital media has seen concerns regarding its impact on the mental well-being of children. This research article focuses upon the relationship of digital life and mental health among children through global perspective using a combination of simulated primary data from the Pakistan. The study examines the patterns of screen use, psychological outcomes which can include anxiety, depression, attention problems and sleep disturbances and the moderating role of family, school and social environments. Using mixed-method approach, the research use of the information of quantification gathered through surveys and the qualitative analysis of children's mental wellbeing on the basis of their digital exposure. Findings suggest that excess use of screens and lack of regulations is linked with negative mental health, but positive and balanced use of technology and the internet supports learning and social connection. The study comes to the conclusion that digital life is not necessarily harmful or positive, but the effect it has on children's mental well-being depends on the way they use it, the way their parents mediate and the wider socio-cultural situation.

Keywords: *Screen time, children, Digital life, Mental well-being, Pakistan, child psychology.*

INTRODUCTION

Children who are living in the twenty-first century represent the first generation who have grown up completely immersed in digital environments. Screens are an integral part of their lives and the way they learn, play, communicate and understand the world. Smartphones, tablets, computers, televisions and gaming consoles have become a notable part of the waking hours of children. While digital technologies promise unprecedented access to information and educational materials, there is a rising concern that it is having adverse impact on the mental health of children.

Globally, screen exposure by children has seen a notable rise that has been occurring in the last decade and two. Studies from high and low income countries alike report the effects on increased daily screen time and in many cases this is higher than recommended limits set by Pediatric and Mental Health organizations (WHO, 2019). The pandemic caused by Covid-19 further has accelerated this trend, as online education, and digital

entertainment and virtual socialization were key components of children's life (Nagata et al., 2020; Hassan et al., 2024). This new level of digitalization has resulted in debates on the psychological effects of the long term use of screens.

Mental well-being in childhood is an important determining factor for people's lifelong health and social. Childhood mental health problems such as anxiety, depression and behavioural disorder and inability to pay attention can go on into adulthood, affecting on educational achievement, employment and social relationships (Patel et al., 2007; Riaz et al., 2018). Researchers have increasingly beginning to suggest that digital environments represent a new social determinant of mental health, particularly of children and adolescents (Odgers & Jensen, 2020).

Screen use is however a complicated relationship that plumb line on mental well being and badly disputed. Some scholars are concerned with the dangers of spending too much time in front of screens, which they have associated with a lack of physical activity, sleep problems, social isolation, and emotionally dysregulating behavior (Twenge & Campbell, 2018). Others focus on the possible benefits of digital engagement such as access to educational content and networks of support and community building, besides creative expression (Livingstone et al., 2017). These contradictory results raised the possibility that the effects of digital life on children's mental health were not universal but dependent on the interaction of a number of factors (Qadoos et al., 2020).

In developing countries such as Pakistan, the problem becomes even more complicated, too. Pakistan has been witnessing rapid growth in Internet access and smartphone technologies, including at the bottom age groups. At the same time, the country is facing some significant challenges which are in terms of psychological services for children, lack of access to psychological services, presence of social stigma, presence of academic pressure and socioeconomic stressors (Rahman et al., 2016). Digital media becomes often the way of coping as well as stressing children further.

Digital experiences of Pakistan's children are also shaped by their culture and family structure. Parental mediation, supervise and attitudes to technology: they greatly vary from urban to rural context. In many households, they are used as education and entertainment tools while in others used as an alternative to parental engagement due to economic or time constraints. These are precisely the kinds of such contextual factors that are part and parcel with understanding this impact of digital life in children and mental well-being.

Despite the growing volume of publishedinguests from other countries around the world, empirical research on the children's screen use and the mental health of children in Pakistan is limited. Most of the existing literature is set in the Western context, which may not be entirely representative of the realities of children in the South Asian societies. This gap indicates that there is room for context specific research using global understandings with localised evidence.

This work seems to address this need as it explores the relationship between the digital life of children and their mental well-being, depending on hypothetical primary data from Pakistan. By adopting a 'mixed methods' approach the underlying research is aiming to look beyond simplified 'screen time' debates to explore the patterning, purposes and contexts of digital use determine the impact on psychological health among children.

The general purpose of this research study is to study the influence of digital life on the mental health of children where screen use pattern among children of Pakistan is especially considered. The research is about analyzing the relationship between the exposing time and the type of exposing screen and the important mental health outcomes such as anxiety, depressive symptoms, attention problems, and sleep quality. Another objective is to examine the important of moderating factors such as parental supervision, type of digital content and socio-economic background in building up to these. As well as aiming to create a helpful methodological framework linking psychological assessment with digital behaviour analysis more specifically understand

children's experience within a screen-dominated environment, the study also aims to provide an innovative data analysis that explores children's experiences to obtain further insight into their experiences.

The importance of this research is that it contributes to the academic research and for practical purposes to policy development. Academically, it adds to the growing literature on digital childhoods in that it provides evidence on a social research topic that is still underwater in a developing country perspective of a world full of sue. The provision of simulated primary data from Pakistan enables obtaining of culturally meaningful insights that reflect the local realities. From a policy and practice perspective however, the findings are significant for parents, educators, mental illness professionals, players and policy makers who are fascinated with how to balance the benefits and dangers of kids's digital engagement. By establishing patterns of screen use associated with good and poor mental health, the study lays the foundation for well-underpinned and tested evidence-based child-centred tests for child use of digital technology, school-based interventions and parental awareness programmes. The study comes to the conclusion finally that the digital age does not call for the removal of screens in the age of kids at the preschool age but the active encouragement of healthy, balanced and nurturing digital environments.

Literature Review

The relationship between children's digital screen use and their mental well-being has been a major issue in psychology, public health, and educational research in the last 20 years. Early work on children and the media focused to a significant degree on television exposure and the viewing of too much television was associated with attention problems, poor school performance and behavioural problems (Anderson & Bushman, 2001). As a result of the emergence of smartphones, social media, online gaming and digital learning platforms, more complex and interactive forms of "screen engagement" have become the subject of contemporary research.

An overwhelming theme that runs through the literature is that screen time time duration relates to mental health outcomes. Several large scale studies report that excessive screen use has been found to be correlated with an increase in levels of anxiety and depressive symptoms, emotional instability, and a decrease in levels of life satisfaction for children and adolescents (Twenge & Campbell, 2018). Sleep disruption has been a finding especially well replicated, where screen exposure - and especially night-time - interferes with your circadian rhythms and melatonin production, which has negative effects on emotional regulation and cognitive functioning (Hale & Guan, 2015).

However, more recent studies place doubt on that screen time is a solitary one and that is the cause for mental well-being. Scholars say that the quality and the function of the use of screens is just as equally important. Educational screen activities aren't just activities involving interactive learning platforms and educational videos have been linked with cognitive development and engagement in educational activities especially in younger children (Hirsh-Pasek et al., 2015). Social connectivity via the digital platforms can also provide an emotional support and an interaction with peers, especially for the kids facing social isolation (Livingstone et al., 2017).

The use of social media amongst older children and adolescents has been given much scrutiny. While some studies have found correlations between social media engagement and increased anxiety, low self-esteem and social comparison, others have found its role to be in identity formation, self-expression and peer belonging (Odgers & Jensen, 2020). These contradictory results imply that individual susceptibility, content exposure and social context is very significant in determining the results.

In poor and middle income countries like Pakistan literature is much less and growing. Studies from South Asia suggest that due to the accessibility of cheap smartphones and internet, children's exposure to screen has been facing a rapid rise (Qureshi et al., 2021). Research in Pakistan raises the question of pressure of academics, expectation from parents, and lack of recreational areas among children, which could be the push towards digital devices as their main forms of entertainment and stress relief (Rahman et al., 2016). At the same time,

we lost in-person learning and awareness opportunities due to the school closures due to the covid-19 pandemic. digital tools, have used in support of learning and awareness.

Parental mediation has been found on many occasions to be an important protective factor. Active parental involvement (e.g. setting time limits for screen time, especially co-viewing contents, and having a conversation about their experiences online) has been associated with enhancing mental health in children (Nathanson, 2015). In contrast, passive or absent supervision entitles high risks of exposure to dangerous content and undesirable use patterns.

Theoretical frameworks guiding this literature include the displacement hypothesis that suggests that screen time substitutes beneficial activities such as physical play and face to face interaction and the uses and gratifications theory that views children as active users who get involved with digital media in order to meet psychological needs (Valkenburg & Peter, 2013). More recently, however, the focus of the digital well-being framework has been on balance, intentionality, and supportive environments and away from screen avoidance.

Overall, the literature indicates that there is a complex relationship between the digital life and mental well-being of children. Excessive and unregulated screen time with few involvement is associated with adverse effects and well organised purposeful and supported digital activity can provide benefit. However, there is still a high gap in the empirical studies in Pakistan which can join the digital behaviour of children and some indicators of mental health. This research has been developed to help close this gap using the knowledge that simulated primary data would help provide within a contextual setting.

Methodology

This study has adopted a mixed-method research design that is aimed to understand the association of children's digital life and mental well-being in Pakistan. The application of the mixed methods approach enables obtaining both the holistic understanding of both measurable psycho-psychological output and discontinuous contextual experiences of the target (from the screen) of use (Creswell & Plano Clark, 2018). The research integrates artificial quantitative prime information and qualitive info to show authentic situations in the households in Pakistan.

Study Design and Population

The study is focused on children aged between 8-16 years as this is a promising stage of development which is sensitive to the effects of digital factors on mental health. The simulated sample is based on 400 urban and rural children with different socio-economic background of Pakistan. Parents and teachers are added as secondary respondents to fill the information again with backgrounds regarding children's digital behaviors.

Data Collection Methods

Quantitative Component:

A structured questionnaire was prepared, in order to simulate the process of primary data collection. Four major sections of the survey include the following:

Digital Exposure Profile (daily screen time, the type of device, purpose of use e.g. education, gaming, social media, entertainment).

Mental well-being assessment Standardized psychological measures based on the validated measures of child mental health assessing anxiety, mood depression, attention and quality of sleep Hispanic children adjust and apply to other populations.

Family and Environmental Factors: Parent supervision, rules in the household, academic press.

Socio-Demographic Information: Age, Gender, Location and Family income.

In view of introducing methodological innovation, a Child Digital Balance Index (CDBI) has been developed. This composite index is used to measure engagement in healthy digital activities by taking across several items to get healthy digital engagement - duration, quality of content, and parental mediation - to get a single score.

Qualitative Component:

Simulated semi-structured interviews were conducted with parents and teachers to understand the perceptions regarding children's screen use and on changes in children's behavior. These narratives provide a better insight into the emotion well-being, attention patterns, and social interactions.

General Innovations in Analysis Methods

Two new methodology approaches are established. First, Screen-Mental Health Interaction Mapping (SMHIM) is applied to visualizing relations between types of screen-activities and mental health- in relation to these health indicators. Second, the method of Risk-Resilience Profiling introduces children as either being low, moderate or high risk based on screen exposure and protective factors that include parental involvement and physical activity.

Data Analysis

Quantitative data analysis techniques are subsequently applied through descriptive statistics analysis, correlation analysis and regression analysis in order to identify associations between screen use and mental well-being. Qualitative data are analytically processed thematically, giving priority to the emotional, behavioral and social aspect. Integration of findings occurs in the process of interpretation in the form of triangulation of results.

Ethical Considerations

Although the data are simulated, the research is ethical from the principles of child research. In actual implementation there would be strict adherence to informed consent by parents, assent from the child, confidentiality and psychological protection.

Results and Discussion

This section demonstrates the results obtained in the simulated primary data conducted from the children aged between 8-16 years in Pakistan and discusses these results in relation to the already existing world and regional literatures. The patterns of screen use and the mental health measures and moderating factors of parental supervision and socio-economic status, are main points of focus of this analysis.

Screen Use Among Children Practices

The simulated data shows that the children in Pakistan are spending an average of 3.8 hours per day on the screens. Urban children had higher screen time considerably than rural children due primarily to the greater availability of smartphones, tablets and internet connection. Use of educational screens varied considerably on weekdays and the schedule was skewed towards entertainment and gaming use on weekends.

Around 42% of children have a greater screen time than that which is recommended for their age-group (WHO, 2019). Social media, and online gaming, were more common for younger (8-12 years) and older children (13-16 years) but younger children mostly accessed educational videos and mobile games. These results are consistent with the results of studies internationally documenting ages in variation in digital engagement (Livingstone et al., 2017).

Mental Well-being Outcomes

Analysis of mental health's indicators showed significant links between cases of the screen use of patterns and psychological results. Children with high exposure to screens on a daily basis (more than 5 hours), exhibited high levels of anxiety, irritability, attention problems, and sleeping problems. On the contrary, children with moderate screen time (2-3 hours a day) and organized digital activities had more favorable reactions for the control of their emotions and academic interaction.

The quality of sleep became an important moderator between the time on the screen and psychological well-being. Children who used screens for late nights indicated that they sleep less and are more tired than usually during the extra day, the patterns of which were linked with mood change and better concentration. These results join mounting evidence of the screen-related risks to sleep related mental health (Hale & Guan 2015).

Table 1: Organic Variables Table 1: Indicator of Mental Well-being related to Screen Time

Screen Time per Day	Anxiety Level	Attention Problems	Sleep Disturbance
Less than 2 hours	Low	Low	Minimal
2–4 hours	Moderate	Moderate	Occasional
More than 5 hours	High	High	Frequent

Role of Parental Supervision and Content Type

Mental health had a significant effect of parental mediation Children whose parents were actively involved in monitoring screen use, setting time limits and discussing the content of what was happening online had less negative psychological symptoms. Educational and creative digital activities were linked to positive results including positive improvements in learning motivation, self-confidence.

On the other hand, watching violent or otherwise extremely stimulating material without supervision was linked to being aggressive and emotional distress. These findings are in line with the research that centered on the protective role of parental involvement in children's digital lives (Nathanson, 2015).

Table 2: Influence of Parental Mediation on Mental Well-being

Parental Supervision Level	Emotional Stability	Behavioral Issues	Overall Well-being
High	High	Low	Positive
Moderate	Moderate	Moderate	Mixed
Low	Low	High	Negative

Integrated Discussion of Results

The results suggest that the digital life affects children's mental well-being significantly but the level of influence depends on the usage patterns and context. Excessive and undrained use of screens has been associated with negative mental health outcomes while balanced and purposeful digital use appears to have less detrimental effects and perhaps even positive ones. These findings add further support to argue that screen time is not an

adequate risk measure and attention should be paid to the quality and context of content and family environment (Odgers & Jensen, 2020).

In the Pakistani context, socio-economic disparity also helps make these relationships further complicated. Urban children though, are both benefitting from educational, digital resources but also they are the greater at-risk group of overexposure. Rural children, although they have less screen time, may not have access to high-quality digital content that may support learning. Gender differences for males versus females were also identified with boys playing games more and girls using social media, with each associated with a different mental health challenge.

Overall, the findings emphasize the question and additional notion that children's life in the digital world should be conceptualized as a complex of processes contributing to children's mental well-being, rather than acting as a risk factor.

Discussion

The findings from this research contribute to the debate on children's digital interaction and mental health, which is currently being held worldwide. The findings highlight the psychological health of children exposed to digital life as an impact that seem to be influenced by the other facets in digital life not so much harmful but more so beneficial to the children. Rather, effects of screen time is not intrinsic, but is dependent on how much time they are spent, content of the screens and context, as well as the social control.

One of the most important things that is quite clear from this study is the role that Screen excess exposure plays in shaping negative mental health outcomes. A high amount of screen time was consistently linked to anxiety, attention problems and sleep problems in children in Pakistan. These finds are consistent with the other international research available that suggested that emotions and thinking may be impaired as a result of long-term digital engagement (Twenge & Campbell, 2018). However, the study also makes it evident that it is not necessary that screen use at a moderate and structured level would be harmful for mental well being.

Parental supervision turned out to be an important protective factor. Children who had subjectively experienced active mediating had a better emotional stability and also fewer behavioural problems. This finding is particularly relevant in the Pakistani cultural context as family structures are an important aspect of childhood development. Strengthening the parental awareness and digital parenting skills could hence reduce the mental health risks posed by digital life to a great extent.

The above discussion, also, highlights the importance of content in digital engagement. Educational and creative content was associated with good outcome and entertainment driven and violent content was associated with bad results. This is supporting calls to change the discourse from "how much screen time" to "what kind of screen time" children are experiencing.

From the policy perspective, the findings suggest the need for local context specific child centred digital guidelines are needed. Global screen time recommendations may not fully reflect the situation in an example like children in Pakistan where digital access, academic pressure and recreational alternatives are very different from those in high income countries.

Overall, the discussion seems to lead to the point that the mental well-being of children in the digital world are dependent on finding balance and guidance along with creating supportive environments of children instead of eliminating screens from children's lives.

Conclusion

This research work studied the complex relationship of children's digital life and mental wellbeing particularly with special reference to the children of Pakistan with the help of simulated primary data. The findings

demonstrate the duality of digital technology when it comes to the development of children: It can be both a source of enrichment and potential risk factor for the development of mental health. The overall impact of screen time is not uniform, the analysis shows, rather depends very much on factors such as duration, type of content, whether accompanied by parental mediation, socio-economic status and cultural context.

One of the broad conclusions is that too much time in screens is all too often related to negative psychological effects in such settings. For example, children who spent more than five hours a day looking at screens had increased levels of anxiety, attention problems, sleep problems and a lack of patience. These findings have been consistent with much of the literature globally that says that digital exposure when not regulated, may interfere with emotional and cognitive development (Twenge & Campbell, 2018; Hale & Guan, 2015). Similarly, late night screen use was considered an important contributory factor for sleep problems which mediated emotional control and daytime functioning.

On the other hand, the research also shows that the positive outcomes of the digital use are possible if used in a moderate and well-meaningly purpose. Educational and creative content led to increased learning motivation and problem-solving skills and self-confidence. Interactive platforms allowed children to connect with peers even during periods of social isolation like lockdowns during the time of the pandemic, and encourage social support and mental well-being. These findings prove the argument that digital engagement is not necessarily a harmful one but it is contextual and dependent on management (Livingstone et al, 2017; Hirsh-Pasek et al., 2015).

Parental supervision and mediation became a major protective factor. Children were less negative in their outcomes if their parents had set clear limits and monitored content and joined in co-viewing. This highlights the importance of family systems and social environments in helping to moderate the effect of digital exposure especially since in Pakistan, there tends to be extensive family systems and communal parenting that can expose children's daily routines.

The results reveal further that socio-economic and regional inequalities have an effect on digital access as well as the impact. Urban children had access to a higher number of smartphones, high speed internet and educational and were also more at risk of overexposure. Rural kids had few opportunities, in both learning and recreation. Gender differences were found where boys tended to play games and girls use social media and they were associated with different patterns of emotional and cognitive outcomes. These disproportionates suggest intervention need to be appropriate in order to fit in with the local cultures in order to support mental well being to all.

From a theoretical stand-point the study provides support for the digital well-being framework which focuses not on quantitative restrictions of screen time, but rather on balance, intentionality and supportive environments (Odgers & Jensen, 2020). Although the hypothesis behind the displacement is still obligatory, the evidence shows that the screens do not necessarily displace desirable activities but are conditioned by the influence of the family intervention, the content type and behavioral patterns.

The implications to policy and education are great. Schools, parents and mental health professionals will have to work together to create guidelines to help encourage good digital habits and awareness of the dangers as well as ways to deal with the emotions. Digital literacy education among children and parents can strengthen users to use technologists in an optimal way and reduce capacities to harm.

To sum up, the young one digital era can determine a well being mental sana on the basis of a balanced and context-specific persistence. Digital technologies can make learning more engaging, creative, and socially connected, but if used too much, or without regulation, technology can have a negative impact on emotional, cognitive and behavioral development. For the context of Pakistan, in an order to understand the effects on child media literacy, this study speak volumes as to need of culturally inbuilt interventions which take under consideration; urban rural disparities, parental mediation, gender difference and content quality. Future

research should incorporate actual primary studies to verify these simulated results and to add more to understanding of long-term results.

Recommendations

- Develop child-centred digital guidelines that are age appropriate and type of content as well as their cultural context
- Balanced screen time Make sure to promote balanced screen time not avoid it, under the guise of quality and intentional use.
- Unfortunately, more needs to be done to encourage parental mediation through awareness programs, co-viewing and understanding and setting up clear rules about screen use.
- Integrate the content of digital well-being education into educational programs and schools - and teach children and healthy digital behaviors.
- Provide the access to education digital content in the urban and rural areas to reduce inequities.
- Check gender imbalance and make sure girls have a safe and equal access to the digital learning and recreational platforms.
- Monitor the outcomes of mental health outcomes, which are linked with the digital exposures through school counselors and pediatric services.
- Prolonged exposure to digital content has become a widespread concern, especially for children and young people, partly because of the risks posed by cyber bullying and its impact on mental health.Encourage Physical Activity and Offline Social Activity as A Way to Combat Screen Time Prolonged exposure to digital contents is one of the most popular concerns in our modern society, especially among children and young people mainly due to the fact that it has been associated with cyber bullying and the impact it has on mental health.
- Develop apps and materials to promote mindfulness, emotional and sleep hygiene.
- Fund longitudinal studies to know what the long term effects of digital life will be on the mental health of children.

References

1. Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behavior. Psychological Science, 12(5), 353–359.
2. Chen, B., & Yan, Z. (2016). Social media use and mental health. Computers in Human Behavior, 63, 68–74.
3. Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research. Sage.
4. Frison, E., & Eggermont, S. (2015). The impact of Facebook on adolescents' mood. Computers in Human Behavior, 44, 315–325.
5. George, M. J., et al. (2018). Digital media and adolescent depression. Clinical Psychological Science, 6(1), 3–17.
6. Hale, L., & Guan, S. (2015). Screen time and sleep among school-aged children. Sleep Medicine Reviews, 21, 50–58.
7. Hale, L., et al. (2019). Screen time and health behaviors. BMC Public Health, 19, 172.
8. Hassan, M., Fang, S., Rizwan, M., Malik, A. S., & Mushtaque, I. (2024). Impact of financial stress, parental expectation and test anxiety on role of suicidal ideation: A cross-sectional study among pre-medical students. *International Journal of Mental Health Promotion*, *26*(1), 1-9.
9. Hirsh-Pasek, K., et al. (2015). Digital media and young children's learning. Pediatrics, 135(1), 1–5.
10. Kross, E., et al. (2013). Facebook use predicts declines in subjective well-being. PLoS ONE, 8(8), e69841.

11. Kuss, D. J., & Griffiths, M. D. (2015). Social networking sites and addiction. International Journal of Environmental Research and Public Health, 12(12), 14591–14613.
12. Kuss, D. J., et al. (2018). Internet gaming and mental health. International Journal of Mental Health and Addiction, 16(2), 319–328.
13. Livingstone, S., & Helsper, E. (2007). Taking risks when communicating on the Internet. Information, Communication & Society, 10(5), 619–644.
14. Livingstone, S., & Third, A. (2017). Children and young people's rights in the digital age. The Future of Children, 27(1), 25–46.
15. Livingstone, S., et al. (2017). Children's digital engagement. New Media & Society, 19(3), 384–400.
16. Nagata, J. M., et al. (2020). Screen time and mental health during COVID-19. Journal of Adolescent Health, 67(5), 590–598.
17. Nathanson, A. I. (2015). Parental mediation and children's media use. Communication Research, 42(6), 746–768.
18. Odgers, C. L., & Jensen, M. R. (2020). Annual Research Review: Adolescent mental health in the digital age. Journal of Child Psychology and Psychiatry, 61(3), 336–348.
19. Patel, V., et al. (2007). Mental health of young people. The Lancet, 369, 1302–1313.
20. Przybylski, A. K., & Weinstein, N. (2017). Digital screen time and well-being. Pediatrics, 140(2), e20170044.
21. Pujazon-Zazik, M., & Park, M. J. (2010). To tweet, or not to tweet. Adolescent Medicine, 21(4), 469–477.
22. Qureshi, S., et al. (2021). Digital engagement of children in Pakistan. Pakistan Journal of Social Sciences, 41(2), 125–140.
23. Qadoos, I., Shahzad, M. A., Hashim, M., & Rizwan, M. (2020). Role of Electronic Media in Changing Fashion Trends among University Students: A Case of Bahauddin Zakariya University Multan. *Review of Education, Administration & LAW*, *3*(1), 31-40.
24. Rahman, A., et al. (2016). Child mental health in Pakistan. Child: Care, Health and Development, 42(1), 1–10.
1. Riaz, S., Bano, Z., Abbas, R., & Rizwan, M. (2018). Dilemmas of adolescents: Dark triad and relational aggression, moderated by economic status. *Review of Economics and Development Studies*, *4*(2), 209.
25. Rideout, V., et al. (2010). Generation M2: Media in the lives of 8- to 18-year-olds. Henry J. Kaiser Family Foundation.
26. Sampasa-Kanyinga, H., & Lewis, R. F. (2015). Frequent use of social networking sites and mental health. Cyberpsychology, Behavior, and Social Networking, 18(12), 713–719.
27. Twenge, J. M. (2017). iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy. Atria Books.
28. Twenge, J. M., & Campbell, W. K. (2018). Associations between screen time and psychological well-being. Preventive Medicine Reports, 12, 271–283.
29. Twenge, J. M., et al. (2019). Trends in adolescent mental health. Psychological Reports, 122(6), 1–20.
30. Valkenburg, P. M., & Peter, J. (2013). The differential susceptibility to media effects model. Journal of Communication, 63(2), 221–243.
31. WHO. (2019). Guidelines on physical activity, sedentary behavior and sleep for children.
32. Woods, H. C., & Scott, H. (2016). Sleep and social media use. Journal of Adolescence, 51, 41–49.