

Relationship between Screen Time and Emotional Well-Being of University Athletes

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Abstract

Screen time has become a normal activity at university level and students, even athletes, are spending more time on screen than any other activity when they are on campus. Time spent in front of screens may relate with students' emotional wellbeing in a positive or negative way. Therefore, this study focused to determine the relationship between screen time and emotional well-being among University athletes overall and also gender wise. A quantitative research with correlational design was carried out to investigate the relationships. The population for this study consisted of registered athletes (216) at Hazara University, Mansehra. The entire population was selected as the sample for the study by using census sampling technique. Two questionnaires, one related to screen time and the other to measure emotional well-being were used. The reliability of both these instruments was .86. Data were collected through online mode and were analyzed through Pearson correlations. The results showed that there was an overall negative relationship between screen time and emotional well-being of Hazara university athletes. Interestingly, the relationship between screen time and emotional well-being was positive among male athletes, while it was negative among female athletes. It is recommended that female student-athletes at university level should be counseled to reflect on their habits of using screen because it's linked to their emotional wellbeing in a negative way. It should also be explored why is more time spent on screen is helpful for emotional wellbeing of male student-athletes.

Keywords: Screen time, Emotional well-being, Athlete, University, student-athletes

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Introduction

Today, the world has become increasingly digitalize, and everyone uses screen for various purposes, including work, academic pursuits, entertainment, and business, because this is the era of technology and everyone has a personal screen. These screens, undoubtedly, have made many tasks easier, as they facilitate communication, learning, and managing daily routines and have revolutionized the world by helping the people almost in every field of life. Therefore the amount of time being spent by individuals on screens is increasing day by day in kids as well as in adults. Generally all students at university and particularly student-athletes use screens for various purposes like study, training and entertainment.

Research shows mixed results regarding screen time effects on the user. It is reported that specific purposes and interactive activities linked to screens appear beneficial (Granic et al., 2014; Przybylski & Weinstein, 2019) but some studies show screen time is negatively linked with physical and psychological health of individuals (Small et al., 2020; Vizcaino et al., 2020). Since it is commonly observed that in present era where life is surrounded by screens and everyone consults the screen more than any other type of sources available. It is not unusual for students to spend time on screens daily.

University athletes who are supposed to be involved more in physical activities have been found busy with their mobile phones and laptop screens instead of being physically active in the campus. Research about the screen time and emotional well-being among university athletes, especially those from the specific cultural context of athletes at University, has not received sufficient attention. It is necessary to study the association of screen time and well-being of student-athletes because they also use screens for various purposes and strong emotions are needed for the optimal performance of athletes. There is a need to identify correlations between students' screen usage duration and their emotional health condition within the university's athlete population.

Although, screen use helps in many ways but it does not necessarily means that it is being used for positive purposes only or it's having no connection with our social and emotional wellbeing. Here it becomes essential to find how these screens are associated with emotional wellbeing of the university students, especially those who are athletes too and have to manage their studies along with their sport activities when they are on campus. It is very important for athletes to maintain their well-being for optimal performance. Therefore this study is being carried

out to find the relationship between screen time and emotional wellbeing of the student-athletes at Hazara University.

Literature Review

The general definition of the screen time is the amount of time spent by someone in front of screens like televisions, game consoles, computers, and mobile phones (Kaye et al., 2020). The World Health Organization (WHO, 2020) defined screen time as the time spent inactively in front of device such as mobile device, computer and TV. This organization (WHO) does not include that time which is spent actively where individuals are required movement or physical activity like exergaming (Kaye & Levy, 2017). Either inactive screen time which refers to content watched on screen without any input or action by the screen user like TV screen or the opposite to it being engaged with screen and actively and intentionally using screen for some purpose like internet based screen including mobile, tablet or computer device which provide opportunity to interact or give feedback while in use (Hu et al., 2020; Sweetser et al., 2012). Another study defined screen time as specifically the time individuals spend on activities that they do in front of digital device whether lethargically or actively (Tremblay et al., 2017).

Recently the use of digital devices is increasing particularly by the individuals and this time is related to lethargic screen time mainly for the young generations. (Bohnert & Gracia, 2021). This increasing screen devices use has developed concerns in educationist, researchers and experts of the field of medical related to the time which individuals spend using screens and the consequences of this use of screens.

University athletes are assumed to be the ones who remain physically active in campus during their free time but they experience the highest increase in screen time due to the fast advancement of digital technologies (Kaye et al., 2020). Although, screen time provides enhanced academic performance and psycho-social advancement (Bringula et al., 2021; Radesky et al., 2014) yet too much screen time is linked to poor sleep quality and mental health and general wellness problems (Christensen et al., 2016; Santos et al., 2023). For athletes, it is essential to have more physical activities than sticking with screen which also may affect their physical fitness and create boredom that in long run may hinder their capability to perform well.

Wellbeing is necessary for everyone, especially for university students. According to Davis (2019) well-being is about feeling good. It is the encounter of individual's pleasure, welfare and absence of diseases. Further wellbeing consists of the combinations of good psychological,

emotional and cognitive health, high life satisfaction, self-motivation, and ability of individuals to control themselves during external pressure. It develops from the experiences of individuals, actions and thoughts. Another study defined well-being as being less upset, the presence of pleasure and satisfaction in life; generally it is the good living standards (Vanden Bos, 2007). We can recognize the concept of well-being by understanding the feeling and functions of individuals on both social level and individually, and in what way the life of someone can be evaluated overall (Michaelson, Mahony, & Schifferes, 2012).

The wellness of athletes depends on their physical state along with their mental toughness and their surrounding group relationships (Rice et al., 2016). The scheduled use of screens produces simultaneous positive and negative influences on athletes. Digital tools enable analytic for training purposes and serve for skill development and team cohesion maintenance through virtual messaging according to Biddle et al. (2018). The combination of long social media sessions leads to disrupted sleep cycles accompanied by elevated stress levels and a decline in recovery period because of immobility (Keles et al., 2020). Screen activities demonstrate different benefits to performance where active screen time supports but passive screen time negatively affects performance and mental health (Kaye & Levy, 2017). Athletes need to practice moderation between screen usage with both relaxation and physical exercise to achieve total wellness.

Emotional well-being is the construct of different elements that comprises generally in what way someone feels positive about his life as a whole including both reflective features and experiential features. These skills are developed in the environment of cultural values, life situations, earnings and life progression (Park et al., 2023). It is an important element in mental health however the study (Lindfors, 2014) shows the positive emotions are directly related to the better physical health of the individuals which means that emotional well-being is playing an important role in the physical health of the people as well.

Different studies have been carried out on the effect of screen time on various aspects of well-being. Various studies have produced different outcomes that demonstrate harmful results in some cases but also show positive effects or no measurable differences, depending on how people utilize screens. Multiple studies provide evidence supporting the negative relationship between screen time and emotional well-being, which develops when people spend excessive time looking at screens. The research by Babic et al. (2017) and Twenge et al. (2018) show that prolonged screen time, especially during passive screen behavior, leads to poorer psychological health and more depressive symptoms while

reducing adolescent life satisfaction. Research by Yang et al. (2013) established that greater amounts of screen usage produce negative emotional reactions, consisting of sadness, loneliness, and sleep impairment. The negative consequences of unnecessary screen time on mental health of girls and young adults receive additional support from Santos et al. (2023) through their systematic review.

However, research has produced conflicting results regarding the idea that screen time causes only negative effects. When applied with purpose, video games and interactive screen activities can develop problem-solving and cognitive processing skills and build social connections (Granic et al., 2014). The investigation by Przybylski and Weinstein (2018) revealed that moderate screen usage does not cause negative well-being outcomes, demonstrating that the quality of screen use surpasses time management in influencing well-being.

According to Valkenburg and Peter (2009), digital media provides opportunities to improve social well-being through relationship maintenance and communication capabilities, which benefit teenage users. The conflicting research findings might be due to differences in research designs, such as various ways of calculating screen time and differences in demographics. According to Odgers (2018), screen time results differ among individuals because socioeconomic status, parental involvement, and group content consumption affect the outcomes. Hwang (2020) presents a complicating factor in the narrative through his findings, which showed that focused, educational, and non-entertainment screen use generates academic success and creative development when tied to active teaching goals. The available research shows that inactive or passive, unmanaged screen activities lead to higher well-being risks when they replace physical exercise, personal social connections, or sleep time (Gentile et al., 2014).

Theoretical Framework

Screen time may hinder the quality time spent in social and physical activities and emotionally supportive face to face interactions which Putnam (2000) has also highlighted in his displacement theory that screen time reduces social life. When athletes remain on screen and sacrifice their social connections and miss social networking and interaction, it may lead to decline in their wellbeing. Although, screen usage is indirectly linked to emotional health but social interaction has a direct link with emotional wellbeing and screen time takes up the opportunity to socialize with others in a face to face gathering. Ultimately, wellbeing may be affected due to more time on screen. Since excessive and limitless time is being spent in

front of screens and university students-athletes have been noticed on screens for hours. Therefore, basic framework of this research is presented in diagram below.

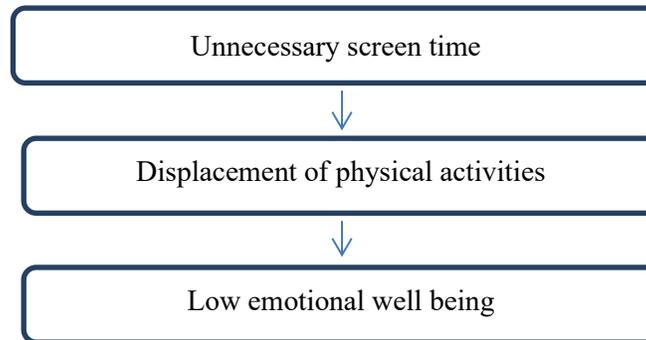


Figure 01. Conceptual Framework of the Study.

In this literature review, overall, an explanation of the main variables and the related researches were presented which reflected that both variables have been important for the researchers in the past and have solid grounding for further studies including this research. Although, many authors studied the screen use but not a single one was found related to those involved in sports or games where physical activity is vital and should be preferred on screen. Since there was no study available with athletes sample specifically in this context of screen usage and emotional wellbeing, even no study existed about these variables on the university samples therefore this research was an effort to fill this gap.

Research Objectives

The research objectives of the study were:

1. To determine the relationship between screen time and emotional well-being among all Hazara university athletes.
2. To find out the relationship between screen time and emotional well-being of university student gender wise.

Research Hypotheses

The following were the hypotheses of this study:

1. There is a relationship between screen time and emotional well-being of student athletes at Hazara University.

2. There is a relationship between screen time and emotional well-being of male and female athletes at Hazara University.

Research Methodology

In this study quantitative research method was used to examine the relationship between screen time and emotional well-being among Hazara University athletes and a co-relational research design was suitable to use to examine the associations between variables of the study. Population of the study was the registered athletes in the office of sports at Hazara University, Mansehra, which consisted of 216 in total. In total of 216 there were 123 males and 93 female athletes. The whole population was taken as a sample of the study using census sampling technique as data had to be collected through online medium. Keeping in view the availability of whole population one Whats App group and the expected online low response rate, this strategy was adopted to get maximum responses.

Instrument to measure emotional well-being was prepared by researcher, while the second instrument to measure the use of screen time of athletes was developed by Joy (2022). Instruments were validated through expert opinion and reliability coefficient of both these instruments was .86.

Results

Data were collected through online medium. The questionnaires were shared via Google form link on a What Sapp group with the sample of the study. Data were analyzed by using Pearson correlation thus relationship between screen time and emotional well-being of athletes were measured. The results of the data are presented below.

Table 01

Correlation between Screen Time and Emotional Well-Being of University Athletes

Variables	Mean (S.D)	r	P
Screen Time	9.87 (6.57)		
Emotional Well-Being	59.35 (6.51)	-.054	.69

Correlation significant at .05 levels

Table No.1 showed that there was a very weak negative correlation ($r=-.054$) between screen time and emotional well-being among athletes. Since p value .69 is greater than 0.05 which means ($p =.69 > 0.05$) that there is no significant relationship between screen time and emotional well-being.

However, the determined r value (-.54) is negative which means that if screen time is high the emotional wellbeing will be low and vice-versa.

The overall finding of the data indicated very weak negative association between screen time and emotional well-being. It was not statistically significant and it showed that if screen time increased than the emotional well-being of athletes' is not affected. On the basis of this finding, it can be predicted that more use of screen time does not have any link with the student athletes' emotional wellbeing likewise their less time in front of screen is not helpful for their emotional wellbeing. This finding also leads us to reject the first hypothesis of this study presenting relationship between screen time and emotional well-being of athletes at Hazara University.

Table 02

Correlation between Screen Time and Emotional Well-Being Gender wise

Gender	Variables	Mean(S.D)	r	p
Male	Screen Time	9.87(7.06)		
	Emotional Well-Being	60.35(6.25)	.07	.66
Female	Screen Time	9.88 (5.48)		
	Emotional Well-Being	57.05(6.68)	-.42	.09

Correlation significant at 0.05 levels

Table No. 2 showed that there was a very weak positive correlation ($r=.07$) between screen time and emotional well-being of males. Since the p value was .66 greater than 0.05 which means that there is no significant relationship between screen time and emotional well-being of males. On the other hand, correlation between screen time and emotional well-being of females was moderate and negative ($r=-.42$). Since the p value was greater than 0.05 therefore the relationship was statistically not significant.

The findings of association between screen time and emotional well-being of male athletes at Hazara University was found very weak but positive which means that if screen time increases than emotional wellbeing of male athletes also increases only to some extent and the relationship was statistically insignificant. Based on this finding about male athletes' screen time and emotional well-being, it can be predicted that time spent on screen is not affecting this gender's emotional wellbeing as both variables do not have any significant association.

The finding based on correlation between screen time and emotional well-being of female athletes at Hazara University was found moderate and negative which means that if screen time increased than emotional well-being of female athletes' decreased but it was also statistically not significant. This finding leads us to predict female athletes' emotional wellbeing was differently associated with their use of screen which was

opposite to male students' context because it lowered their emotional wellbeing when they used screen for long time.

Findings based on gender wise data, guide us to partially reject the second hypothesis (for male gender) and partially accept gender wise relationship between screen time and emotional well-being for female gender only. Since, the measured relationship was moderate and negative on female data while it was very weak though positive in male athletes and was opposite to the other gender's results. Since, it was found at moderate level only for one gender and was also non-significant but it showed use of screen time was negatively linked with females' emotional wellbeing.

Discussion

In this study, overall, a very weak negative correlation was found between screen time and emotional well-being reflecting that there was no significant association between variables. These findings are opposite to the findings of other studies like Twenge & Campbell (2018) who found that happiness and life satisfaction were associated with time spent on screen. Another study by Suchert, Hanewinkel, & Isensee, (2015) also reported negative association between screen time and different indicators of quality life and their findings indicated strong negative correlation. These findings also partially supported the findings of Rodriguez-Ayllon et al., (2019) who found that when any kind of sedentary time increased by individuals then they face more psychological issues, such as lose of interest and sadness commonly known as depression or low level of psychological wellbeing.

For the gender wise data, the finding related to correlation between screen time and emotional well-being was different for both genders, which can be understood in the light of Straatmann et al., (2016) findings indicating that girls spent time passively in front of screen while boys remain active in playing video games when they were on screen. Findings of present study showed if screen time increased on the male side, their emotional well-being remained unchanged. It may be due to their active involvement in screen usage or may be due to the reason that they watched such type of content that didn't affect their emotions, or they watched screen to explore the things that were helpful for their emotional wellbeing. Further, it was supported by the Cooray, (2020) who reported that enjoying screen activities resulted in relaxation and positive emotions.

On the other hand, it was found that there was a moderate negative correlation between screen time and emotional well-being of female athletes. These findings were strongly in line with the different studies mentioned in the literature as research by Yang et al. (2013) that greater amounts of screen usage produced negative emotional reactions

consisting of sadness combined with loneliness and sleep impairment. The negative consequences of unnecessary screen time on mental health of girls and young adults received additional support from Santos et al. (2023) through their systematic review. The findings of present study were also similar to the findings of Babic et al. (2017) and Twenge et al. (2018) who demonstrated that prolonged screen time especially during passive screen behavior led to worse psychological health and more depression symptoms.

Conclusion

These are the conclusions of this study based on its findings:

Although the correlations were negative (overall) and varied in direction by gender, none of the relationships were statistically significant. Therefore, no meaningful association can be established.

There was an insignificant association between screen time and emotional well-being of female university going athletes. This correlation was also negative but at moderate level in the studied variables of screen time and the emotional well-being of female university students. For female athletes, this moderate association between screen time and emotional well-being means that their emotional wellbeing connects with their time spent on screen. More time on using screen was connected with poor emotional wellbeing.

There was a very weak positive association between screen time and emotional well-being of Hazara university male athletes. The screen time and emotional well-being of Hazara university male athletes was also insignificant. This weak positive and insignificant relationship between screen time and emotional well-being of Hazara university male athletes showed that they were spending time in front of screen in such a way that did not have any link with their emotional well-being.

Recommendations

Following are the recommendations based on the findings of this study:

Based on the findings related to female athletes at university level, there is a need to explore their way of using screen. They should be counseled to make them understand that screen time is associated with their emotional wellbeing.

In future, there should be a study to highlight the type of content and purpose of using screen by male and female students so that they may be redirected towards purposeful and meaningful use of screen. There should be another study to find male students purpose of using screen time and type of content they watch or explore. It should be

studied by the qualitative method to explore in detail about the type of content they watched.

Contribution to the Field: This study about screens time and their link with emotional wellbeing and thus contributes documented findings about the connection of digital media on emotional health of university athletes in Pakistani context.

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