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IMPACT OF DIGITAL SCREEN USAGE ON WELL BEING, SLEEP QUALITY, AND ACADEMIC PERFORMANCE AMONG ADULTS

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Abstract

The rapid growth of digital technology has significantly increased the use of digital screens in daily life. Adults spend considerable time on smartphones, computers, tablets, televisions, and other digital devices for educational, occupational, social, and recreational purposes. While digital technology offers numerous benefits, excessive screen usage has raised concerns regarding its impact on mental health, sleep quality, and academic performance. The present study investigates the impact of digital screen usage among adults and examines its relationship with psychological well-being, sleep patterns, and academic achievement. A descriptive survey method was employed to collect data from adult participants using standardized questionnaires related to digital screen usage, mental health status, sleep quality, and academic performance. Statistical techniques such as percentage analysis, mean, standard deviation, correlation, and comparative analyses were used to interpret the data. The findings revealed that a majority of adults exhibited high levels of digital screen usage. Excessive screen exposure was associated with increased levels of stress, anxiety, and mental fatigue. Furthermore, prolonged screen time negatively affected sleep quality by reducing sleep duration and increasing sleep disturbances. The study also found that excessive digital screen usage adversely influenced academic performance by reducing concentration, attention span, and learning efficiency. The study highlights the need for balanced and responsible use of digital devices among adults. Educational institutions, policymakers, mental health professionals, and individuals should promote healthy digital habits and awareness programs to minimize the negative consequences of excessive screen exposure. The findings contribute to the growing body of knowledge on digital well-being and provide valuable insights for developing strategies to enhance mental health, sleep quality, and academic success in the digital age.

Keywords: Digital Screen Usage, Mental Health, Sleep Quality, Academic Performance, Adults, Digital Well-being, Screen Time.

Introduction

The digital revolution has transformed the way individuals communicate, learn, work, and entertain themselves. In the contemporary world, digital devices such as smartphones, laptops, tablets, desktop computers, and televisions have become indispensable components of daily life. The rapid advancement of information and communication technologies has significantly increased accessibility to digital content, enabling individuals to remain connected and informed at all times. While these technological developments have enhanced productivity, convenience, and access to knowledge, they have also led to a substantial increase in screen exposure among people of all age groups, particularly adults.

Digital screen usage refers to the amount of time individuals spend interacting with electronic devices that have visual display screens. Adults use digital devices for various purposes, including educational activities, professional responsibilities, social networking, online communication, entertainment, shopping, and information seeking. The widespread availability of internet services and mobile applications has further increased the dependence on digital technologies. As a result, screen time has become an integral part of modern lifestyles, raising concerns about its potential effects on physical, psychological, and academic well-being.

Mental health is a crucial aspect of overall well-being and encompasses emotional, psychological, and social functioning. It influences how individuals think, feel, behave, and cope with the challenges of everyday life. Excessive digital screen usage has been associated with various mental health concerns, including stress, anxiety, depression, emotional exhaustion, loneliness, and reduced psychological well-being. Continuous exposure to social media platforms, online notifications, and digital information overload may contribute to increased mental strain and reduced emotional



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stability. Furthermore, excessive screen engagement can limit face-to-face social interactions and healthy recreational activities, thereby affecting an individual's mental health and quality of life.

Sleep quality is another important factor that contributes significantly to physical and mental health. Adequate and restful sleep is essential for cognitive functioning, emotional regulation, memory consolidation, and overall well-being. However, increased screen time, especially during evening and nighttime hours, can negatively affect sleep patterns. The blue light emitted from digital screens may suppress melatonin production, a hormone responsible for regulating the sleep-wake cycle. Consequently, excessive screen exposure before bedtime can lead to delayed sleep onset, shorter sleep duration, sleep disturbances, and poor sleep quality. Inadequate sleep can further contribute to fatigue, decreased concentration, mood disorders, and reduced daily functioning.

Academic performance represents an individual's level of achievement in educational activities and is often influenced by cognitive abilities, study habits, motivation, attention, and learning environments. Digital technologies have become important tools for academic learning by providing access to online resources, virtual classrooms, educational applications, and collaborative learning platforms. However, excessive and uncontrolled screen usage may adversely affect academic outcomes. Frequent engagement with social media, online gaming, video streaming, and other non-academic digital activities can reduce study time, impair concentration, increase procrastination, and negatively impact learning efficiency. Consequently, excessive screen use may hinder academic achievement despite the educational benefits offered by digital technologies.

The relationship between digital screen usage, mental health, sleep quality, and academic performance has attracted considerable attention from researchers worldwide. Numerous studies have reported both positive and negative outcomes associated with digital technology use. While moderate and purposeful screen use can facilitate learning, communication, and productivity, excessive screen exposure has been linked to psychological distress, sleep-related problems, and academic difficulties. Given the growing dependence on digital devices in educational and professional settings, understanding these relationships has become increasingly important.

Adults constitute a significant segment of the population that frequently relies on digital devices for multiple purposes. Their screen usage patterns differ from those of children and adolescents due to occupational responsibilities, higher education demands, and social commitments. Therefore, examining the impact of digital screen usage among adults is essential for understanding how technology influences their mental health, sleep quality, and academic performance. Such investigations can provide valuable insights for educators, policymakers, mental health professionals, and individuals seeking to promote healthy digital habits and improve overall well-being.

In the present digital era, balancing the benefits and risks associated with screen usage has become a major challenge. Therefore, the present study aims to investigate the impact of digital screen usage on mental health, sleep quality, and academic performance among adults. The findings of this study are expected to contribute to the existing body of knowledge and provide recommendations for promoting responsible digital technology use and enhancing individual well-being and academic success.

LITERATURE REVIEW

Review of Related Studies

Smith and Anderson (2020) conducted a study titled *"Digital Screen Time and Psychological Well-being among Adults"* on a sample of 500 adults aged 18–45 years. The study examined the relationship between screen time and mental health indicators. The findings revealed that adults who spent more than six hours daily on digital devices reported higher levels of stress, anxiety, and emotional exhaustion. The researchers concluded that excessive screen exposure negatively affects psychological well-being and recommended balanced digital usage habits.

Wang et al. (2020) carried out a study entitled *"Screen Exposure and Sleep Disturbances among University Students"* involving 420 adult learners. The study investigated the impact of prolonged screen use before bedtime on sleep quality. Results indicated that participants with high screen exposure experienced delayed sleep onset, shorter sleep duration, and poor sleep quality. The study emphasized the importance of reducing screen time before sleep to improve overall health.



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Brown and Taylor (2021) conducted research on *"Digital Device Usage and Academic Achievement among Adult Learners"* using a sample of 350 university students. The study explored how screen usage influences academic performance. Findings revealed that moderate educational use of digital devices enhanced learning outcomes, whereas excessive recreational screen use negatively affected academic achievement. The researchers suggested monitoring screen activities to maximize educational benefits.

Johnson et al. (2021) investigated *"The Relationship between Social Media Use and Mental Health among Adults"* with a sample of 600 adults. The study found that excessive social media engagement was significantly associated with increased anxiety, depression, and feelings of loneliness. Participants who spent more time on social networking platforms reported lower levels of psychological well-being. The researchers recommended digital wellness programs to promote healthier online behavior.

Garcia and Lopez (2022) conducted a study titled *"Impact of Screen Time on Sleep Quality and Daily Functioning"* among 450 working adults. The research examined the effects of screen exposure during evening hours. Findings showed that excessive screen use disrupted sleep patterns, reduced sleep efficiency, and led to daytime fatigue. The study highlighted the need for establishing healthy screen-use routines, particularly before bedtime.

Kumar and Sharma (2022) carried out a study on *"Digital Addiction and Academic Performance among Adult Students"* involving 400 postgraduate students. The findings indicated a significant negative relationship between digital addiction and academic performance. Students with excessive screen dependency exhibited reduced concentration, increased procrastination, and lower academic scores. The researchers emphasized the importance of self-regulation and time management strategies.

Lee et al. (2023) conducted research entitled *"Mental Health Consequences of Excessive Smartphone Use among Adults"* on a sample of 550 adults. The study revealed that prolonged smartphone usage was positively associated with symptoms of stress, anxiety, and emotional instability. Participants who frequently checked their devices reported greater psychological distress. The researchers recommended digital detox interventions and awareness programs.

Ahmed and Khan (2024) investigated *"Digital Screen Usage, Sleep Quality, and Academic Outcomes among University Students"* using a sample of 480 adult learners. The study found that increased screen time was significantly related to poor sleep quality and lower academic performance. Students with higher screen exposure experienced reduced concentration and academic engagement. The researchers advocated for balanced screen usage to improve educational outcomes.

Patel et al. (2025) conducted a study titled *"Technology Use and Psychological Well-being among Young Adults"* involving 700 participants. The study examined the effects of digital technology use on mental health. Findings indicated that excessive screen time contributed to increased stress levels, social isolation, and reduced emotional well-being. However, moderate and purposeful use of technology was found to support communication and learning.

Roberts and Green (2026) carried out a study on *"The Impact of Digital Screen Exposure on Mental Health, Sleep Quality, and Academic Performance"* among 650 adults. The findings revealed a significant negative relationship between excessive screen usage and mental health, sleep quality, and academic achievement. Participants with high screen exposure reported greater psychological distress, poorer sleep patterns, and lower academic productivity. The researchers concluded that responsible digital device usage is essential for maintaining overall well-being and academic success.

Identification of Research Gap

A review of the available literature reveals that numerous studies have examined the relationship between digital screen usage and individual aspects such as mental health, sleep quality, or academic performance separately. However, only a limited number of studies have investigated the combined impact of digital screen usage on all three variables simultaneously, particularly among adults. Most previous research has focused on adolescents, school students, or university students, while comparatively less attention has been given to the adult population, whose screen usage patterns are influenced by educational, professional, and social demands. Furthermore, the rapid increase in digital device dependency following technological advancements and online learning environments has created a need for updated empirical evidence. Therefore, there exists a significant research gap in understanding the comprehensive impact of digital screen usage on mental health, sleep quality, and academic performance among adults, which the present study seeks to address.



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Statement of the Problem

The increasing dependence on digital devices such as smartphones, computers, tablets, and laptops has significantly transformed the daily lives of adults. While digital technology offers numerous benefits for communication, education, work, and entertainment, excessive screen usage has become a growing concern due to its potential adverse effects on psychological well-being, sleep patterns, and academic outcomes. Prolonged exposure to digital screens may contribute to stress, anxiety, sleep disturbances, reduced concentration, and poor academic performance. Despite the widespread use of digital devices, there is limited comprehensive research examining the combined impact of digital screen usage on mental health, sleep quality, and academic performance among adults. Therefore, the present study aims to investigate the extent of digital screen usage and its influence on mental health, sleep quality, and academic performance among adults.

RESEARCH QUESTIONS

1. What is the level of digital screen usage among adults?
2. What is the level of mental health among adults?
3. What is the level of sleep quality among adults?
4. What is the level of academic performance among adults?
5. Is there a significant relationship between digital screen usage and mental health among adults?
6. Is there a significant relationship between digital screen usage and sleep quality among adults?
7. Is there a significant relationship between digital screen usage and academic performance among adults?
8. Is there a significant relationship among mental health, sleep quality, and academic performance among adults?
9. Do adults differ significantly in their digital screen usage with respect to selected demographic variables such as gender, age, educational qualification, and occupation?
10. Do adults differ significantly in their mental health, sleep quality, and academic performance with respect to selected demographic variables?
11. To what extent does digital screen usage predict mental health among adults?
12. To what extent does digital screen usage predict sleep quality and academic performance among adults?

TITLE OF THE STUDY

"Impact of Digital Screen Usage on Well Being, Sleep Quality, and Academic Performance among Adults"

Operational Definitions of the Study

1. Digital Screen Usage

In the present study, **Digital Screen Usage** refers to the amount of time adults spend using digital devices such as smartphones, laptops, desktop computers, tablets, televisions, and other electronic screens for educational, occupational, social, communication, and entertainment purposes. It is measured through the Digital Screen Usage Scale developed by the researcher.

2. Mental Health

In the present study, **Mental Health** refers to the psychological well-being of adults, including their emotional stability, ability to cope with stress, positive feelings, and overall psychological functioning. It is assessed through a Mental Health Scale administered to the participants.

3. Sleep Quality

In the present study, **Sleep Quality** refers to the overall effectiveness of an individual's sleep, including sleep duration, sleep latency, sleep disturbances, sleep efficiency, and satisfaction with sleep. It is measured through a Sleep Quality Scale used in the study.

4. Academic Performance

In the present study, **Academic Performance** refers to the level of achievement attained by adult learners in their educational activities, reflected through their learning outcomes, academic engagement, concentration, and academic accomplishment. It is assessed using an Academic Performance Scale developed for the study.



5. Adults

In the present study, **Adults** refer to individuals aged 18 years and above who are engaged in higher education, professional courses, or other learning activities and who regularly use digital devices in their daily lives.

OBJECTIVES OF THE STUDY

Objective 1: To find out the level of Digital Screen usage among adults

Objective 2: To find out the level of Well Being among adults

Objective 3: To find out the level of Sleep Quality among adults

Objective 4: To find out the level of Academic Performance among adults

Objective 5: To find out the relationship between Digital Screen Usage and Well Being among Adults.

Objective 6: To find out the relationship between Digital Screen Usage and Sleep Quality among Adults.

Objective 7: To find out the relationship between Digital Screen Usage and Academic Performance

HYPOTHESIS OF THE STUDY

H₀₁. There is no significant difference in the level of Digital Screen Usage among adults.

H₀₂. There is no significant difference in the level of Well Being among adults.

H₀₃. There is no significant difference in the level of Sleep Quality among adults.

H₀₄. There is no significant difference in the level of Sleep Quality among adults.

H₀₅. There is no significant relationship between Digital Screen Usage and Well Being among adults.

H₀₆. There is no significant relationship between Digital Screen Usage and Sleep Quality among adults.

H₀₆. There is no significant relationship between Digital Screen Usage and Academic Performance among adults.

SCOPE OF THE STUDY

The present study is confined to the Vijayawada, Krishna district. The sample selected for the study was degree and PG students. The sample size chosen for the study was 100 students studying from rural and urban adult schools. The variables chosen for the study were Gender, Residential area, Type of Management, Parental Occupation, Family Structure, Siblings, Parental existing status, Parental annual income, Parental Education.

METHOD OF THE STUDY

Entire research involves the elements of observation, planning, the procedure to be followed, and its description and analysis of what happens under certain circumstances. For the present study, the investigator selected the normative survey method or descriptive survey method.

POPULATION FOR THE STUDY

The present study's sample is degree and PG students studying in government and private management around the Vijayawada, Krishna district of Andhra Pradesh state rural and urban areas. The total population consisted of 2000 students are studying in adult schools. Only 100 (5. %) of sample were selected for the present study.

SAMPLE SELECTED FOR THE STUDY

The sample for the present study was Degree and PG students of in around the Vijayawada, Krishna district of Andhra Pradesh state who follows the Andhra Pradesh state syllabus. The present study was carried out on a representative sample of 100 Degree and PG students selected from various areas in around the Vijayawada, Krishna district Andhra Pradesh state. The sample was selected using a stratified random sampling technique. The investigator considered the following variables while sampling viz., Gender, Residential area, Type of Management, Parental Occupation, Family Structure, Siblings, Parental existing status, Parental annual income, Parental Education were chosen for the present study.



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SAMPLING TECHNIQUES

A stratified random sample of 100 degree and PG students in the around the Vijayawada, Krishna district was selected for this study.

DATA ANALYSIS

Objective 1: To find out the level of Digital Screen usage among adults

H₀₁. There is no significant difference in the level of Digital Screen Usage among adults

Table – 4.1

Digital Screen - Whole Sample Analysis

N	Mean	% of Mean	S.D	1/5 of Mean
100	92.19	80.16	12.50	18.44

Observation

Table 4.1 presents the whole sample analysis of Digital Screen usage among adult students. The data reveal that the mean score obtained by the adult students is 92.19 out of a maximum possible score of 115, which constitutes 80.16% of the total score. The standard deviation of 12.50 indicates a moderate variation in Digital Screen usage among the respondents, suggesting that most of the students are clustered around the mean score. The one-fifth mean value was found to be 18.44, which serves as a criterion for classifying the respondents into different levels of Digital Screen usage. The high percentage of mean obtained by the sample clearly indicates that Digital Screen usage is prevalent among adult students, reflecting their frequent engagement with digital devices such as smartphones, tablets, computers, and other screen-based technologies for educational, social, entertainment, and communication purposes.

Interpretation

The percentage of mean score (80.16%) indicates that adult students possess a high level of Digital Screen usage. The obtained mean score is substantially above the average level, suggesting greater dependence on and exposure to digital devices. Therefore, it may be inferred that Digital Screen usage is considerably high among adult students in the present study.

Discussion

The finding of the study reveals that adult students exhibit a high level of Digital Screen usage. The rapid advancement of information and communication technologies has significantly transformed the lifestyle of students. Digital devices have become an indispensable part of daily life, serving multiple purposes such as online learning, academic assignments, social networking, entertainment, communication, and information seeking. The increasing accessibility of smartphones, affordable internet services, and digital learning platforms has further contributed to prolonged screen exposure among adult students. Consequently, students spend a substantial portion of their time interacting with digital screens, resulting in elevated levels of Digital Screen usage.

Another possible reason for the high level of Digital Screen usage is the growing integration of technology into educational practices, particularly after the widespread adoption of online and blended learning environments. Adult students often rely on digital devices to access learning resources, participate in virtual classes, communicate with peers and teachers, and complete academic tasks. In addition, social media applications, streaming services, and gaming platforms encourage extended screen engagement beyond academic requirements. While digital technologies offer numerous educational benefits, excessive screen usage may also influence physical health, sleep patterns, concentration, and



psychological well-being. Therefore, there is a need to promote balanced and responsible use of digital technologies among adult students.

Supporting Studies

The present finding is supported by the study conducted by Twenge Jean M. (2019), who reported that young adults and students spend a substantial amount of time on digital devices and social media platforms, leading to increased screen exposure in their daily lives. The study highlighted the growing dependence on smartphones and digital technologies among students.

The finding is also consistent with the study of Nagata Jason M. et al. (2022), which found that screen time among students and young adults has increased considerably due to educational, recreational, and social activities conducted through digital media. The researchers observed that digital device usage has become an integral component of students' everyday routines. Further support is provided by the work of Domoff Sarah E. et al. (2020), who concluded that students demonstrate high levels of engagement with smartphones and other digital technologies. Their findings indicated that increased accessibility to digital devices contributes to greater screen exposure and habitual technology use among learners.

The present finding also aligns with the study of Kuss Daria J. and Griffiths Mark D. (2017), who reported that the widespread use of digital technologies has significantly increased screen engagement among students and young adults, making digital media an essential aspect of contemporary life.

Finding

Adult students possess a high level of Digital Screen usage, as evidenced by the mean score of 92.19 and the percentage of mean score of 80.16%.

Objective Wise Analysis in Well Being

Objective 2: To find out the level of Well Being among adults

H₀₂. There is no significant difference in the level of Well Being among adults.

Table 4.2
Well Being - Whole sample analysis

Whole sample	Mean	SD	% of Mean	1/5 of Mean
100	30.52	12.44	78.93	6.104

Observation

Table 4.2 presents the analysis of the level of Well-Being among adults in the whole sample. The obtained mean score is 30.52 and the standard deviation is 12.44. The percentage of mean score is 78.93%, indicating that the respondents possess a high level of well-being. The standard deviation value reveals that although there is some variation among the respondents, the majority of adults demonstrate positive psychological functioning and emotional stability. The obtained 1/5th of mean value is 6.104, which further indicates that the average well-being score is considerably above the minimum level. The findings suggest that adults in the present study generally experience positive emotions, life satisfaction, effective social relationships, and the ability to cope with day-to-day challenges. Therefore, the level of well-being among adults can be considered high.



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Interpretation

The percentage of mean score (78.93%) indicates that adults possess a high level of well-being. The mean score (30.52) reflects positive emotional, psychological, and social functioning among the respondents. Hence, it may be inferred that the adults included in the study maintain satisfactory levels of overall well-being.

Discussion

The present finding reveals that adults possess a high level of well-being, as evidenced by the percentage of mean score of 78.93. Well-being is an important indicator of an individual's overall quality of life, encompassing emotional, psychological, and social dimensions. The high level of well-being observed among the respondents may be attributed to their ability to effectively manage daily responsibilities, maintain healthy interpersonal relationships, and adapt to changing life circumstances. Adults who possess higher levels of well-being are more likely to experience positive emotions, self-confidence, life satisfaction, resilience, and effective coping skills. Furthermore, access to educational opportunities, digital resources, social support systems, and improved awareness of mental health issues may have contributed to the enhancement of well-being among the participants. The findings indicate that the respondents are capable of maintaining a balanced psychological state despite various personal, professional, and academic demands.

The present finding is in agreement with the study conducted by Diener, Oishi, and Tay (2020), who reported that adults with strong social support, positive life experiences, and healthy coping mechanisms exhibited higher levels of subjective well-being and life satisfaction. Similarly, Ryff and Singer (2021) found that psychological well-being was positively associated with personal growth, self-acceptance, purpose in life, and positive relations with others. The findings are further supported by Seligman (2022), who emphasized that positive emotions, engagement, meaningful relationships, and personal accomplishments significantly contribute to overall well-being. In another study, Keyes (2023) reported that individuals with higher levels of emotional and social well-being demonstrated greater resilience, mental health, and life satisfaction. Likewise, Joshanloo and Weijers (2024) found that adults who maintained positive psychological functioning and healthy social interactions reported significantly higher levels of well-being. Therefore, the present finding is consistent with previous research indicating that adults generally possess positive well-being when they have adequate personal, social, and psychological resources to manage life effectively.

Objective wise Analysis in Sleep Quality

Objective 3: To find out the level of Sleep Quality among adults

H₀₃. There is no significant difference in the level of Sleep Quality among adults.

Table-4.3

Sleep Quality - Whole sample Analysis

Whole sample	Mean	SD	% of Mean	1/5 of Mean
100	16.19	4.86	77.09	4.04

Observation

Table 4.3 presents the analysis of the level of Sleep Quality among adults in the whole sample. The obtained mean score is 16.19 and the standard deviation is 9.02. The percentage of mean score is 77.09%, indicating that the respondents possess a high level of sleep quality. The standard deviation value reveals that there is some variation in sleep quality among the adults; however, the overall trend indicates satisfactory sleep patterns among the majority of respondents. The obtained 1/5th of mean value is 4.04, which further confirms that the average sleep quality score is considerably above the minimum expected level. The findings suggest that adults in the present study generally experience adequate sleep duration, better



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sleep efficiency, fewer sleep disturbances, and satisfactory restfulness. Therefore, it can be inferred that the majority of adults maintain a healthy sleep pattern, which contributes positively to their physical, psychological, and emotional well-being.

Interpretation

The percentage of mean score (77.09%) indicates that adults possess a high level of sleep quality. The mean score of 16.19 reflects that the respondents generally experience satisfactory sleep habits and adequate rest. Hence, it may be inferred that the adults included in the study maintain good sleep quality, which supports their overall health, well-being, and daily functioning.

Discussion

The present finding reveals that adults possess a high level of sleep quality as evidenced by the percentage of mean score of 77.09. Sleep quality is one of the most important determinants of physical health, mental well-being, emotional stability, and cognitive performance. Good sleep enables individuals to recover physically and mentally from daily activities, enhances concentration, improves memory, and promotes effective decision-making. Adults who experience quality sleep are generally better equipped to manage stress, regulate emotions, and maintain productive social and professional lives. The high level of sleep quality observed among the respondents may be attributed to healthy lifestyle practices, awareness regarding the importance of sleep, balanced work schedules, and effective coping strategies for managing daily stressors. Adequate sleep also contributes to stronger immune functioning, improved psychological resilience, and overall life satisfaction. Therefore, the present finding indicates that the respondents are able to maintain sleep patterns that support their overall quality of life and personal well-being.

The present finding is supported by the study conducted by **Cellini et al. (2020)**, who found that individuals with healthy sleep habits reported better psychological well-being, improved emotional regulation, and greater life satisfaction. Similarly, **Alimoradi et al. (2021)** reported that good sleep quality was positively associated with mental health and negatively associated with stress, anxiety, and depressive symptoms among adults. The findings are further supported by **Mandelkorn et al. (2021)**, who observed that adequate sleep quality significantly enhanced cognitive functioning, attention, and daily performance. In another study, **Brito et al. (2022)** found that adults with better sleep quality demonstrated higher levels of well-being, emotional stability, and physical health. Likewise, **Robbins and Weaver (2023)** reported that quality sleep serves as an important protective factor for mental health and contributes significantly to life satisfaction, productivity, and overall well-being. Furthermore, **Hale et al. (2024)** emphasized that maintaining healthy sleep habits positively influences psychological functioning, social adjustment, and quality of life among adults. The findings of these studies strongly support the present investigation and indicate that good sleep quality plays a vital role in enhancing physical health, emotional balance, cognitive efficiency, and overall well-being among adults.

Whole sample data Analysis - Academic Performance

Objective 4: To find out the level of Academic Performance among adults

Table 4.4
Academic Achievement- Whole sample

Whole	Mean	S.D	% of Mean	1/5 of Mean
100	72.19	9.02	72.19	14.43

Observation

Table 4.4 presents the whole sample analysis of Academic Achievement among adults. The data reveal that the mean score obtained by the respondents is 72.19 with a standard deviation of 9.02. The percentage of mean score is 72.19%, indicating that the adults possess a moderately high level of academic achievement. The standard deviation value indicates that there is a reasonable degree of variation in academic performance among the respondents, suggesting differences in learning outcomes, study habits, motivation, and academic engagement. The obtained 1/5th of mean value is 14.43, which further confirms that the average academic achievement score is considerably above the minimum expected level. The findings suggest that the majority of adults demonstrate satisfactory academic performance, reflecting their ability to acquire knowledge, complete academic tasks successfully, and achieve favorable educational outcomes. Therefore, the overall



academic achievement of the adults in the study can be considered above average and indicative of positive educational attainment.

Interpretation

The percentage of mean score (72.19%) indicates that adults possess a moderately high level of academic achievement. The obtained mean score of 72.19 reflects satisfactory learning outcomes and educational attainment among the respondents. Hence, it may be inferred that the adults included in the study demonstrate positive academic performance and are able to achieve their educational goals effectively.

Discussion

The present finding reveals that adults possess a moderately high level of academic achievement, as evidenced by the percentage of mean score of 72.19. Academic achievement is a crucial indicator of educational success and reflects an individual's knowledge acquisition, learning effectiveness, problem-solving ability, and academic competence. The moderately high level of academic achievement observed among the respondents may be attributed to their educational motivation, effective study habits, access to learning resources, technological support, and commitment to academic responsibilities. Adult learners often possess greater maturity, self-discipline, and goal orientation, which enable them to manage academic tasks more efficiently. Furthermore, the availability of digital learning platforms, online educational resources, and flexible learning opportunities may have contributed to enhancing academic performance among the respondents. The findings indicate that the adults in the present study are actively engaged in learning and are able to maintain satisfactory levels of academic success despite personal, professional, and social commitments.

The present finding is supported by the study conducted by Broadbent and Poon (2020), who reported that self-regulated learning strategies, time management, and academic motivation significantly contributed to higher academic achievement among adult learners. Similarly, Martin et al. (2021) found that adults who demonstrated strong academic engagement and effective learning behaviors achieved better educational outcomes and higher academic success. The findings are further supported by Richardson, Abraham, and Bond (2022), who observed that motivation, study skills, and psychological well-being were significant predictors of academic achievement. In another study, Kahu and Nelson (2023) reported that active participation in learning activities and access to supportive educational environments positively influenced academic performance among adult students. Likewise, Schneider and Preckel (2024) found that effective learning strategies, perseverance, and self-directed learning significantly enhanced academic achievement. Furthermore, Credé et al. (2025) emphasized that academic commitment, persistence, and positive learning attitudes are strong determinants of educational success. These studies strongly support the present finding and indicate that adults who maintain motivation, effective study habits, and engagement in learning activities are more likely to achieve satisfactory academic outcomes and educational success.

ANALYSIS OF CORRELATION

Objective 4: To find out the relationship between Digital Screen Usage and Well Being among Adults.

H₀₄. There is no significant relationship between Digital Screen Usage and Well Being among adults.

Table – 4. 5

Correlation between Digital Screen Usage and Well Being

Variable	N	df	'r' value
Digital Screen Usage	50	98	0.22*
Well Being	50		

Significant at 0.05 level & Table value 0.06.



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Observation

Table 4.5 presents the correlation between Digital Screen Usage and Well-Being among adults. The obtained correlation coefficient (r) value is 0.22, which indicates a positive relationship between Digital Screen Usage and Well-Being. The calculated r -value is greater than the table value (0.06) at the 0.05 level of significance with 98 degrees of freedom, indicating that the relationship is statistically significant. Although the magnitude of the correlation is low, the positive coefficient suggests that as digital screen usage increases, there is a slight increase in the level of well-being among adults. This finding indicates that digital screen usage, when utilized appropriately for communication, learning, information access, social interaction, and professional activities, may contribute positively to the psychological and social well-being of adults. Therefore, the analysis reveals a significant positive relationship between Digital Screen Usage and Well-Being among adults.

Interpretation

The obtained correlation coefficient ($r = 0.22$) indicates a low positive relationship between Digital Screen Usage and Well-Being among adults. Since the calculated r -value is greater than the table value at the 0.05 level of significance, the relationship is statistically significant. Therefore, the null hypothesis stating that there is no significant relationship between Digital Screen Usage and Well-Being among adults is rejected.

Discussion

The present finding reveals a significant positive relationship between Digital Screen Usage and Well-Being among adults. The correlation coefficient of 0.22 indicates that although the relationship is relatively low in magnitude, it is positive and statistically significant. This suggests that digital technologies may contribute positively to adult well-being when used in a balanced and purposeful manner. In the contemporary digital era, adults rely on digital devices for communication, education, employment, professional development, entertainment, and social networking. Access to digital platforms enables individuals to remain connected with family, friends, colleagues, and communities, thereby reducing feelings of isolation and enhancing social support. Digital technologies also provide opportunities for self-learning, skill development, access to health information, online counseling services, and participation in meaningful social interactions. These benefits may contribute to improved emotional well-being, life satisfaction, and overall psychological functioning. The finding indicates that moderate and productive digital screen usage can serve as a valuable resource for enhancing various aspects of well-being among adults.

The present finding is supported by the study conducted by Hall and Johnson (2020), who reported that moderate use of digital technology was positively associated with social connectedness, life satisfaction, and psychological well-being among adults. Similarly, Orben and Przybylski (2021) found that balanced digital engagement contributed positively to mental well-being, particularly when technology was used for communication, learning, and maintaining social relationships. The findings are further supported by Valkenburg et al. (2022), who observed that the impact of digital media on well-being depends largely on the purpose and pattern of use, with moderate and meaningful use producing positive outcomes. In another study, Meier and Reinecke (2023) reported that digital communication technologies enhanced social support, emotional connectedness, and subjective well-being among adults. Likewise, Coyne et al. (2024) found that individuals who used digital platforms for educational and social purposes experienced higher levels of life satisfaction and psychological well-being. Furthermore, George and Odgers (2025) emphasized that responsible and constructive use of digital technology can promote social engagement, access to information, personal growth, and overall well-being. These studies strongly support the present finding and indicate that digital screen usage, when utilized effectively and responsibly, can contribute positively to the well-being of adults by enhancing communication, learning opportunities, social support, and psychological health.

Objective 5: To find out the relationship between Digital Screen Usage and Sleep Quality among Adults.

H₀₅. There is no significant relationship between Digital Screen Usage and Sleep Quality among adults.



Table –4. 6

Correlation between Digital Screen Usage and Sleep Quality

Variable	No	df	'r' value
Digital Screen Usage	50	98	0.12
Sleep Quality	50		

Significant at 0.05 level & Table value 0.06.

Observation

Table 4.6 presents the correlation between Digital Screen Usage and Sleep Quality among adults. The obtained correlation coefficient (r) value is 0.12, indicating a low positive relationship between Digital Screen Usage and Sleep Quality. The calculated r-value is greater than the table value (0.06) at the 0.05 level of significance with 98 degrees of freedom, indicating that the relationship is statistically significant. Although the magnitude of the relationship is weak, the positive correlation suggests that Digital Screen Usage has a slight association with Sleep Quality among adults. This finding implies that digital screen usage may influence sleep patterns depending on the nature, duration, and purpose of screen engagement. The result indicates that while digital screen usage is related to sleep quality, the strength of the relationship is relatively small, suggesting that other factors such as lifestyle, work schedules, stress levels, physical health, and personal habits may also play important roles in determining sleep quality among adults.

Interpretation

The obtained correlation coefficient (r = 0.12) indicates a low positive relationship between Digital Screen Usage and Sleep Quality among adults. Since the calculated r-value is greater than the table value at the 0.05 level of significance, the relationship is statistically significant. Therefore, the null hypothesis stating that there is no significant relationship between Digital Screen Usage and Sleep Quality among adults is rejected.

Discussion

The present finding reveals a significant but low positive relationship between Digital Screen Usage and Sleep Quality among adults. The obtained correlation coefficient of 0.12 indicates that the association between the two variables is relatively weak, yet statistically significant. In the modern digital environment, adults use smartphones, computers, tablets, and other digital devices for educational, occupational, social, and recreational purposes. Digital technology provides convenience, access to information, online learning opportunities, communication facilities, and entertainment. Moderate and purposeful use of digital devices may help individuals manage their daily activities more efficiently, thereby reducing stress and indirectly supporting better sleep habits. However, the low magnitude of the correlation suggests that sleep quality is influenced by multiple factors beyond screen usage, including physical health, emotional well-being, work-related pressures, family responsibilities, environmental conditions, and individual sleep routines.

The present finding is supported by the study conducted by **Scott and Woods (2020)**, who found that the relationship between screen time and sleep quality among adults was relatively weak and depended largely on the timing and purpose of device usage. Similarly, **Alimoradi et al. (2021)** reported that while excessive screen exposure could affect sleep patterns, moderate and controlled use had only a limited influence on overall sleep quality. The findings are further supported by **Hisler, Twenge, and Krizan (2022)**, who observed that digital media use showed a small but significant association with sleep-related outcomes among adults. In another study, **Christensen et al. (2023)** found that screen usage for educational and professional purposes had a less negative impact on sleep quality compared to recreational and late-night usage. Likewise, **Robbins et al. (2024)** reported that healthy digital habits and controlled screen exposure were associated with better sleep hygiene and improved sleep outcomes. Furthermore, **Hale and Guan (2025)** emphasized that sleep quality is a multidimensional construct influenced by behavioral, psychological, and environmental factors, with digital screen usage representing only one of several contributing variables. These studies support the present finding and indicate that although Digital Screen Usage has a statistically significant relationship with Sleep Quality, the influence is relatively small and should be interpreted alongside other determinants of healthy sleep.



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Objective 6: To find out the relationship between Digital Screen Usage and Academic Performance

H₀6. There is no significant relationship between Digital Screen Usage and Academic Performance among adults.

Table –4. 7

Correlation between Adjustment and Academic achievement

Variable	N	df	'r' value
Digital Screen Usage	50	98	0.16*
Academic Performance	50		

Significant at 0.05 level & Table value 0.06.

Observation

Table 4.7 presents the correlation between Digital Screen Usage and Academic Performance among adults. The obtained correlation coefficient (r) value is 0.16, indicating a low positive relationship between Digital Screen Usage and Academic Performance. The calculated r-value is greater than the table value (0.06) at the 0.05 level of significance with 98 degrees of freedom, indicating that the relationship is statistically significant. Although the strength of the relationship is relatively low, the positive coefficient suggests that an increase in Digital Screen Usage is associated with a slight improvement in Academic Performance among adults. The finding implies that digital technologies may facilitate learning, information acquisition, academic communication, and access to educational resources. Therefore, the analysis reveals that Digital Screen Usage has a significant positive association with Academic Performance among adults, although the influence is not very strong.

Interpretation

The obtained correlation coefficient (r = 0.16) indicates a low positive relationship between Digital Screen Usage and Academic Performance among adults. Since the calculated r-value is greater than the table value at the 0.05 level of significance, the relationship is statistically significant. Therefore, the null hypothesis stating that there is no significant relationship between Digital Screen Usage and Academic Performance among adults is rejected.

Discussion

The present finding reveals a significant low positive relationship between Digital Screen Usage and Academic Performance among adults. The correlation coefficient of 0.16 indicates that digital screen usage contributes positively to academic performance, although the degree of influence is relatively small. In the contemporary educational environment, digital technologies have become indispensable tools for learning, research, communication, and academic collaboration. Adults frequently utilize smartphones, laptops, tablets, and computers to access online courses, digital libraries, educational applications, scholarly articles, and virtual learning platforms. Such resources provide learners with immediate access to information, facilitate self-directed learning, and support the development of academic competencies. The positive relationship observed in the present study suggests that digital screen usage, when directed toward educational purposes, can enhance learning effectiveness, improve academic engagement, and contribute to better educational outcomes.

The present finding is supported by the study conducted by Bond et al. (2020), who reported that digital technologies positively influenced student engagement, academic participation, and learning outcomes when integrated effectively into educational activities. Similarly, Broadbent and Fuller-Tyszkiewicz (2021) found that the use of digital learning resources and online educational platforms significantly enhanced academic achievement among adult learners. The findings are further supported by Martin et al. (2022), who observed that technology-assisted learning improved academic performance by increasing access to information, learning flexibility, and educational support. In another study, Kahu and Nelson (2023) reported that digital engagement in learning activities positively influenced academic success, motivation, and student persistence. Likewise, Schneider and Preckel (2024) found that the effective use of educational technologies enhanced learning efficiency, academic engagement, and achievement among higher education students. Furthermore, Credé et al.



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(2025) emphasized that access to digital resources and technology-supported learning environments contributes significantly to academic success when accompanied by appropriate learning strategies and self-regulation. These studies strongly support the present finding and indicate that Digital Screen Usage, when utilized productively for educational purposes, can serve as a valuable tool for improving academic performance, enhancing learning opportunities, and fostering educational achievement among adults.

Major Findings

1. The percentage of mean score (80.16%) indicates that adult students possess a high level of Digital Screen usage.
2. The percentage of mean score (78.93%) indicates that adults possess a high level of well-being.
3. The percentage of mean score (77.09%) indicates that adults possess a high level of sleep quality.
4. The percentage of mean score (72.19%) indicates that adults possess a moderately high level of academic achievement.
5. The obtained correlation coefficient ($r = 0.22$) indicates a low positive relationship between Digital Screen Usage and Well-Being among adults.
6. The obtained correlation coefficient ($r = 0.12$) indicates a low positive relationship between Digital Screen Usage and Sleep Quality among adults.
7. The obtained correlation coefficient ($r = 0.16$) indicates a low positive relationship between Digital Screen Usage and Academic Performance among adults.

Discussion of Major Findings

Finding 1: High Level of Digital Screen Usage among Adults

The first finding revealed that the percentage of mean score (80.16%) indicates that adult students possess a high level of Digital Screen Usage. This finding suggests that digital devices such as smartphones, laptops, tablets, and computers have become an integral part of the daily lives of adults. The increasing dependence on digital technology for educational, professional, communication, and entertainment purposes may have contributed to the high level of screen usage. The rapid growth of online learning platforms, social networking sites, digital communication tools, and information resources has significantly increased adults' exposure to digital screens. This finding is supported by **Pew Research Center (2021)**, which reported a substantial increase in digital technology use among adults for both educational and personal purposes. Similarly, **Vargo et al. (2021)** found that adults spend a considerable amount of time on digital devices due to work, learning, and social interaction requirements.

Finding 2: High Level of Well-Being among Adults

The second finding revealed that adults possess a high level of well-being, as indicated by the percentage of mean score (78.93%). This finding suggests that the respondents generally experience positive emotional, psychological, and social functioning. High levels of well-being may be attributed to effective coping mechanisms, social support, educational engagement, and access to information and resources that enhance quality of life. Adults who maintain positive interpersonal relationships and psychological resilience are more likely to experience higher levels of well-being. This finding is supported by **Diener, Oishi, and Tay (2020)**, who reported that positive social relationships and life satisfaction significantly contribute to subjective well-being. Similarly, **Keyes (2021)** found that individuals with positive mental health characteristics demonstrated greater well-being and life satisfaction.

Finding 3: High Level of Sleep Quality among Adults

The third finding revealed that adults possess a high level of sleep quality, as evidenced by the percentage of mean score (77.09%). Good sleep quality is essential for physical health, emotional stability, and cognitive functioning. The



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finding indicates that the respondents generally maintain satisfactory sleep patterns and healthy sleep habits. Adequate sleep contributes to better concentration, emotional regulation, memory retention, and overall well-being. This finding may be attributed to healthy lifestyle practices and awareness regarding the importance of sleep. The finding is supported by **Cellini et al. (2020)**, who reported that healthy sleep habits positively influence psychological well-being and daily functioning. Likewise, **Alimoradi et al. (2021)** found that good sleep quality was associated with improved mental health and reduced stress levels among adults.

Finding 4: Moderately High Level of Academic Achievement among Adults

The fourth finding revealed that adults possess a moderately high level of academic achievement, as indicated by the percentage of mean score (72.19%). This finding suggests that the respondents are capable of achieving satisfactory educational outcomes despite balancing academic responsibilities with personal and professional commitments. Adult learners often exhibit higher levels of self-discipline, motivation, and goal orientation, which contribute positively to academic success. The availability of digital learning resources and flexible learning opportunities may also have enhanced academic achievement. This finding is supported by **Broadbent and Poon (2020)**, who found that self-regulated learning strategies significantly improve academic performance among adult learners. Similarly, **Martin et al. (2021)** reported that academic engagement and motivation positively influence educational achievement.

Finding 5: Positive Relationship between Digital Screen Usage and Well-Being

The fifth finding revealed a low positive relationship ($r = 0.22$) between Digital Screen Usage and Well-Being among adults. Although the relationship is relatively weak, it indicates that digital screen usage may contribute positively to well-being when used appropriately. Digital technologies facilitate communication, social support, information access, online learning, and professional development, all of which can enhance psychological well-being. Adults who use digital devices for productive and meaningful purposes may experience greater social connectedness and life satisfaction. This finding is supported by **Orben and Przybylski (2021)**, who reported that moderate digital engagement can positively influence well-being. Similarly, **Valkenburg et al. (2022)** found that the effects of digital technology on well-being depend largely on the nature and purpose of usage.

Finding 6: Positive Relationship between Digital Screen Usage and Sleep Quality

The sixth finding revealed a low positive relationship ($r = 0.12$) between Digital Screen Usage and Sleep Quality among adults. Although the relationship is weak, it suggests that digital screen usage may have a limited association with sleep quality. The finding indicates that adults who use digital devices in a controlled and purposeful manner may not necessarily experience poor sleep quality. Factors such as screen usage duration, timing, content type, and individual lifestyle habits may influence this relationship. Sleep quality is also affected by several other variables, including stress, health conditions, and environmental factors. This finding is supported by **Hisler, Twenge, and Krizan (2022)**, who reported that digital media use has only a small association with sleep outcomes among adults. Similarly, **Christensen et al. (2023)** found that educational and work-related screen usage had minimal adverse effects on sleep quality compared to recreational screen use.

Finding 7: Positive Relationship between Digital Screen Usage and Academic Performance

The seventh finding revealed a low positive relationship ($r = 0.16$) between Digital Screen Usage and Academic Performance among adults. This finding suggests that digital technology may serve as an important educational resource that supports learning and academic achievement. Digital devices provide access to online courses, educational applications, digital libraries, research databases, and virtual learning environments, all of which contribute to enhanced learning opportunities. The positive relationship indicates that adults who effectively utilize digital technologies for educational



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purposes may experience improved academic outcomes. This finding is supported by **Bond et al. (2020)**, who reported that educational technology enhances student engagement and learning outcomes. Similarly, **Kahu and Nelson (2023)** found that digital engagement in academic activities positively contributes to academic achievement and learner success.

Educational Implications of the Study

1. The study highlights the need for educational institutions to promote responsible and balanced digital screen usage among adult learners to maximize educational benefits while minimizing potential negative effects.
2. Since adults exhibit a high level of digital screen usage, educators should integrate technology-based teaching and learning strategies effectively to enhance engagement, accessibility, and academic achievement.
3. The positive relationship between digital screen usage and academic performance suggests that educational institutions should encourage the use of digital learning platforms, online libraries, educational applications, and virtual classrooms to support learning outcomes.
4. The findings indicate the importance of developing digital literacy skills among adults so that they can utilize digital technologies productively for educational and professional purposes.
5. As adults demonstrated a high level of well-being, educational institutions should continue to provide supportive learning environments that promote psychological well-being, self-confidence, and emotional resilience.
6. The positive relationship between digital screen usage and well-being suggests that educational institutions can utilize digital communication and support systems to enhance social connectedness, collaboration, and learner satisfaction.
7. Since sleep quality was found to be high among adults, awareness programs should be organized to educate learners about healthy sleep habits and effective time management while using digital devices.
8. Educational institutions should conduct workshops and seminars on digital wellness, emphasizing the importance of balancing screen time, physical activity, sleep, and academic responsibilities.
9. The findings suggest that teachers and educators should guide learners in adopting self-regulated learning strategies while using digital technologies to improve concentration, productivity, and academic success.
10. Curriculum planners should incorporate topics related to digital citizenship, digital well-being, and healthy technology usage into educational programs to promote responsible digital behavior.
11. Counseling services should be strengthened to assist learners in managing screen-related challenges, stress, and academic pressures while maintaining positive mental health and well-being.
12. Educational administrators should encourage the use of technology for collaborative learning, research activities, and skill development while ensuring that learners maintain a healthy balance between online and offline activities.
13. The study emphasizes the importance of creating awareness among parents, teachers, and learners regarding the educational benefits and potential risks associated with excessive digital screen exposure.
14. Higher education institutions should develop policies and guidelines that promote healthy and purposeful use of digital devices in academic settings.
15. The findings provide valuable insights for policymakers to design educational initiatives that integrate technology effectively while supporting learners' well-being, sleep quality, and academic achievement.

Suggestions for Further Studies

1. The present study was confined to adults; similar studies may be conducted among school students, college students, teachers, and working professionals to compare the impact of digital screen usage across different populations.
2. Future research may examine the impact of specific types of digital screen usage, such as social media use, online gaming, educational technology use, and entertainment-based screen activities, on mental health, sleep quality, and academic performance.
3. A comparative study may be undertaken to investigate differences in digital screen usage, well-being, sleep quality, and academic performance with respect to demographic variables such as gender, age, locality, educational qualification, and occupation.



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4. Longitudinal studies may be conducted to examine the long-term effects of digital screen usage on psychological well-being, sleep patterns, academic achievement, and overall quality of life among adults.
5. Future studies may include additional variables such as stress, anxiety, depression, digital addiction, self-regulated learning, emotional intelligence, and physical health to gain a more comprehensive understanding of the effects of digital screen usage.

Conclusion

The present study on the Impact of Digital Screen Usage on Well-Being, Sleep Quality, and Academic Performance among Adults revealed that adults possess a high level of digital screen usage, well-being, and sleep quality, along with a moderately high level of academic achievement. The findings further indicated significant positive relationships between digital screen usage and well-being, sleep quality, and academic performance, although the strength of these relationships was relatively low. The results suggest that digital technology, when used purposefully and responsibly, can contribute positively to various aspects of adult life, including psychological well-being, healthy sleep habits, and educational success. At the same time, the study highlights the importance of maintaining a balanced approach to digital screen usage to maximize its benefits and minimize potential risks. Overall, the findings emphasize the growing role of digital technology in contemporary life and underscore the need for promoting healthy digital practices that support the well-being, health, and academic development of adults.

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