RELATIONSHIP BETWEEN SCREEN TIME AND MENTAL HEALTH OF PROSPECTIVE TEACHERS

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DECLARATION

I, **ASWANI E.B.,** do hereby declare that this dissertation entitled, "**RELATIONSHIP BETWEEN SCREEN TIME AND MENTAL HEALTH OF PROSPECTIVE TEACHERS**" is a record of original research work done by me under the supervision and guidance of **Mr. RISHAD KOLOTHUMTHODI,** Assistant Professor, Farook Training College Kozhikode and has not been submitted by me in this university or any other university for the award of any Degree/Fellowship or recognition before.

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Certificate

I, **RISHAD KOLOTHUMTHODI,** do hereby certify that this dissertation entitled "**RELATIONSHIP BETWEEN SCREEN TIME AND MENTAL HEALTH OF PROSPECTIVE TEACHERS**" is a record of bonafide study and research carried out by **ASWANI E.B.,** of M.Ed. Programme (2019-2021) under my supervision and guidance and has not been submitted by her for the award of any Degree, Diploma, Title or Recognition before.

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INTRODUCTION

Education is a powerful force in bringing rapid changes in the society. The fundamental role of education is national development. Man is a rational being. His ability to speak language and thinking is quite different from all other animals and of high level. Naturally man likes to be active. He has the aspiration to achieve progress. Education is the mainly responsible for man's intelligence, workmanship, all round development and progress. Similarly, Education is main source for man's progressive aspects and positive development. Human beings have two aspects. One is biological and other is sociological. The biological aspects is maintained and transmitted by nutrition and reproduction and the sociological aspects is maintained and transmitted by education. Thus, his achievement is all round.

According to Gandhi, By Education, I mean all round drawing out of the best in child and man - body, mind and spirit'. His Education is Characterized as naturalistic in its settings. His concept Education stands for harmonious development of all aspects of human personality- intellectual, physical, spiritual and so on. All round development was an important aim of education to Gandhi. He wanted to train the Hand, Heart and Head of the child. His educational thought is relevant to life with the need and aspiration of the emerging Indian society. His principle was to develop the individual through social contact and social service.

Tagore wanted Education to develop freedom and creative self-expression. He aspired to inculcate education in free atmosphere. Tagore

conceived education as dynamic, living and closely associated with life. He wanted man to be in harmony with surrounding. The aim of education was to develop a sense of unity in the world and promote a well- balanced harmonious and integrated personality of the child. Tagore's aim of Education consisted of physical development, individual development, moral and spiritual development, harmonious development and international understanding.

According to Aurobindo, both matter and spirit are necessary for the well-being of mankind and education should bring a balanced development of both. The mother, true representative of Aurobindo has therefore said that education through science and technology would enable 'the material basis stronger, complete and more effective for manifestation of spirit. Aurobindo emphasized that education should be in accordance with the needs of our real modern life. Education should create dynamic citizen so that they are able to meet the needs of modern complex life. According to him physical development and holiness are the chief aim of education.

Education is a platform in which generations are trained and make them future ready. Education provides knowledge and skills which help the person tom be employable. The Indian Education system is diversified among other countries education system due to its change in the evolution from ancient to modern education system. During the ancient and medieval period of education, students were trained by teachers in such a manner that they can survive and live in that era. After Independence, there is a tremendous growth in the Education system. Education started to develop and entered into the modern era of science and

technology and innovations. In the modern era of science and technology, the industrial sector is increasing day by day. As demand increases our education sector also needs to change and adapt to that environment. The student- teacher relations remained the same as it was in ancient and medieval period, but students did not live in the teacher's house. As technology is increasing the Education sector is also following the trend of technology by teaching the students through online lectures and Massive Open Online Courses (MOOC). Now a days Students mostly learn concepts through online platform like You Tube, Coursera and Udemy.

Today massive amounts of information (books, audio, images, videos, e-materials) are available at one's fingertips through the internet, and opportunities for formal learning are available online world-wide through khan academy, MOOC, podcast etc. An opportunity for communication and collaboration has also been expanded by technology. Traditionally classroom has been relatively isolated, and collaboration has also been limited to other students in the same classroom. Technology in the classroom is essential for increasing student's engagement and empowering educators to create innovative learning experiences in and out the class.

Along with technological development, traditional learning methods have been changed by various technologically enhanced teaching learning methods. New trends in technology replaced the role of teacher. Technology offers a range of new type of learning possibilities. With the help of tablets and Smart phone, new ways has been discovered which support the cooperation between Education

and the world of work. For example, videos recorded at the workplace can be used as learning resources at school. .

Overwhelming consequences of the pandemic crisis of Covid-19 have affected all walks of the society and also education. In order to keep education running educational institutions had to quickly adapt the situation. This has resulted in unprecedented push to online learning. Everyone relied on social media as part of the study. Teachers, students, prospective teachers were used online mode for teaching. The online mode was able to complement the education in the classroom. Online learning system proven to a boon to both students and teachers alike who are unable to attend school due to risk of disease spread. Most of the time students, Teachers and everyone are spending their time in front of the screen. Though people of 21st century were driven by technological gadget and developments, Covid-19 specially created an indispensable bond between the mankind and electronic gadgets. As a result smart phones or related gadgets has become like an organ of the body of all students. In some or the other way they were spending each moment with any of the gadgets.

According to Nicky Hockly, screen time is the time spent on watching television, playing a video game, or using an electronic device with a screen such as smart phone or tablet etc. A growing portion of children and adolescent's leisure time is spent with screens including smart phones, tablets, gaming consoles and televisions. We all are living in an era of technological advancement. So use of technology is one of the necessary factors in the present situation. Thus digital technologies are used not only for communication, information and entertainment

by everyone, but also it has become an integral part of our life. So most of the time is shared with screen.

However social media is considered as one of the strong medium of communication in the 21st century. Social media has many positive effects on education including better communication, online learning, enhancing skills, educational purpose, personal needs, entertainment, carrier needs etc. Several professionals' bodies have released recommendations for the use of screen and digital media by children and young people. The British Psychological society recommends that parents use technology alongside children and engage them in discussion about media use. The American academy of paediatrics recommend less than one to two hours of entertainment screen time per day for children and discourage the use of any screen media by children under two years of age.

Social media has risks in the form of enabling unhealthy comparison to others, bullying, or exposure to negative content. It can also have positive influence. A review of research around Facebook use found that 'passive use' was associated with lower well-being and life satisfaction. Mckeown and Clancy (995, cited in Cutcliffe & Hannigan, 2001) state that negative media images promote negative attitude, and ensuing media coverage feeds off an already negative public perception. There is evidence to suggest that use of screens at bedtime is linked to children having fewer hours to sleep, poor sleep, increased tiredness. Many of the concerns around screen use relate to sedentary (or inactive) behaviour. The time spent in front of screen is time that is not spent exercising or doing others forms of

physical activity. Sedentary behaviour may be associated with poor physical health, well-being and mental health.

WHO considers mental health as a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stress of life, can work productively and is able to make a contribution to his or her community. Mental health involve physical, emotional, mental all aspects of a person and which is an integral and essential component of health. Mental health is important at every stage of life, from childhood and adolescence through adult. People are facing many issues in life. Thinking, mood and behaviour could be affected. (WHO, 2017), reported that 10-20% of children and adolescents world wide experience mental health problems. Most of the common disorders are generalized anxiety disorder and depression, respectively (Mental Health Foundation, 2018, Stansfeld et al., 2016). Many factors like physical health, intelligence, habit, brain factors, school related factors, influence of media will contribute to mental health problems.

Mental Health problems can cover a broad range of disorders, but the common characteristic is that they all affect the person's personality, thought process and interactions. They can be difficult to clearly diagnose unlike physical illness. People having repeated attack of fear of something, lack of interest in pursuing daily life, fatigue may lead to mental disorders. Majority cases of mental disorders are having due to anxiety disorders due to emotional symptoms like change in mood, erratic thinking, chronic anxiety, impulsive action etc.

In the last decade, the use of electronic media devices has dramatically increased among youth. But social media never is a replacement for real-world human connection. It requires n person contact with others to trigger the hormones that alleviate stress and make you feel happier and more positive. Technology is designed to bring people close together. Spending too much time engaging with social media can actually make you feel more lonely and isolated. They spend more and more time focusing their attention on screen by sitting and viewing. Thus the excessive use of screens without proper rest may badly affect their mental health. At this context, the present study aims to examine the extent of screen time and mental health status of prospective teachers.

Need and Significance of the Study

The first Electronic screen was Cathode ray tube (CRT), which was invented in 1897 and commercialized in 1992. Cathode ray tube is a vacuum tube containing one or more electron guns, the beam of which are manipulated to display images on a phosphorescent screen. The images may represent electrical wave forms (Oscilloscope), pictures (Television set, computer monitor), radar targets, or other phenomena. CRT's were the most popular choice for display screen until the rise of liquid crystal displays (LCD) in the early 2000s. Screens are now an essential part of entertainment, advertising and information technologies. Since their popularization in 2007, Smart phones have become ubiquitous in daily life.

In the present scenario everyone have twenty four hours media access, learning and sharing information, shopping, gaming, banking, communicating,

entertaining etc. The increased use of digital media is changing people's everyday lives and the way they connect and collaborate in the broader social context, at work and in civil society. Thus digital media influence is having in desired and undesired manner. The major trending learning platform in the present era is "online platform", which is progressively used by students and teachers for enhancing teaching, learning process.

In this pandemic situation everyone is restricted to make social relations. Social media allow people to manage and accomplish their everyday activities. Which is part of people's routine and is an essential way to communicate, shop, entertainment, check news, for study, reference, teaching etc. Now the use of social media at covid-19 is rapidly increased than before. Thus, digital media carried a vital role in this pandemic situation. Social media have become a substitute for teachers to provide education up to an extent. Thus, students spend majority of time at home and spending more time in front of the screen.

Screen time is the amount of time spent using a device with a screen such as a Smart phone, computer, television or video gaming console. Studies showed that screen time directly impact child development, mental and physical health. The positive and negative effect of screen time is influenced by levels and context of exposure to screen time. Substantial contribution to obesity but also promote unhealthy life style practices. Youth who experience anxiety and depression have a negative physical and psycho social outcomes such as, academic difficulties, poor interpersonal relationships, low self -esteem and suicide.

Thus, the explosion of digital technology has created a drastic shift in youth by the use of technology with increased access of digital media. Most of the educational purposes are enabled with the help of digital media with quick access of knowledge. The presence of technology in the lives of children and young people has increased so too. We know that interaction with fellow beings and society will definitely improve the social skills of mankind, more over it brings joy and happiness to those world. Hence social interaction acts as a catalyst in improving the mental and physical well-being of the mankind. Likewise it is assumed that the reverse may happen if we lack social interaction and concentrate on spending time with non-living things such as electronic devices and machines. Thus, screen based technologies may affect their health and well-being

According to Hadfield, mental health is the full and harmonious functioning of the whole personality. WHO stress that mental health is more than just the absence of mental disorders or disabilities. Good mental health according to the world health organization is the state of well-being where individuals are able to realize their own potential, work productively, cope with normal stress of life, and make a positive contribution to the community. Mental and psychological well-being encompasses the way you feel about yourself but also the way you deal with external situation and the quality of your relationships. WHO revealed that determinants of mental health and mental disorders include not only individual attributes such as the ability to manage one's thought, emotions, behaviour and interactions with others but also social, cultural, economic, political and environmental factors such as national policies, social protection standard of living, working conditions, and community support etc.

Mental health is actually how a person handles a stressful or problematic situation in a positive way. The person who has good mental health can think positive and act positive in a proper way. Mental health affects our thoughts, feelings and emotions. Thus having a good mental health is necessary for every individual for their existence. Sometimes, the abnormal brain functioning, leads to mental illness.

According to American Psychiatric Association, mental illness are health conditions involving changes in emotion, thinking or behaviour. Mental illness are associated with distress or problems functioning in social, work or family activity. APA reported that sleep or appetite changes, Mood changes, withdrawal, drop in functioning, problems thinking, increased sensitivity, Apathy, feeling disconnected, illogical thinking, Nervousness and unusual behavior are some of the signs and symptoms that cause mental illness. A report by Mind, a U.K. Mental Health charity, asserts the negative media coverage has a direct and harmful impact on the lives of people with mental illness. Mind surveyed 515 people suffering from a range of disorders about their feelings regarding coverage of mental illness. On the other hand people are using social media for the educational purpose such as learning, for research etc. The use of social media cause both positive and negative impact on adolescents' life. Thus, high rate of media use is related with the time spend in front of the social media.

A study showed that hours of television the children watched per day was associated with both an irregular nap time schedule and an irregular bedtime schedule (Thompson and Christakis, 2005). In the journal 'Nature Human

Behaviour', two psychologists at the University of Oxford published an influential study that found a small association between digital technology use and lower psychological well-being among adolescence. Children indicated to become anxious while watching television (Feierabend and Rathgeb, 2006). Thus Higher were the rates of symptoms since the rate of screen time is increasing at a higher rate, finding its relationship with mental health is highly demanded.

Statement of the Problem

The proposed study is entitled as '**Relationship between Screen Time and Mental Health of Prospective Teachers'.**

Definition of Key Terms

Screen Time

Screen time is the time spent on watching television, or using an electronic device with a screen such as smart phone, tablet, etc. (NICKY HOCKLY).

In the proposed study screen time is the average time spent per day by a prospective teacher on viewing smart phone, laptop, hand held devices or other visual devices for leisure and academic purpose.

Mental Health

Mental health is the state of well-being in which an individual realize his or her own abilities, can cope with the normal stress of life, can work productively and is able to make a contribution to his or her community. (WHO)

Prospective Teachers

Prospective teachers mean those teacher trainees who are undergoing training at graduate level in training colleges under University of Calicut.

Operational Definitions

Screen Time

In this study screen time means the time spend on watching television, playing video game, or using an electronic device with a screen such as smart phone or tablet etc.

Mental Health Status

The term Mental Health Status means the mental health status of prospective teachers. It is not merely the absence of infirmity or conflicts. It is a positive status of signifying complete physical, mental, emotional and social well-being.

Variables of the Study

1. Screen Time (independent variable)
2. Mental Health (dependent variable)

Objectives of the Study

1. To find out the extent of screen time among prospective teachers in the total sample and sub sample based on stream of course, locale and type of management of the institution.

2. To find out the extent of mental health status among prospective teachers in the total sample and sub sample based on stream of course, locale and type of management of the institution.

3. To find out whether there is any significant difference between the mean score of Screen Time among prospective teachers for the sub samples based on stream of course, locale and management of the institution.

4. To find out whether there is any significance difference between the mean score of mental health status of prospective teachers for the sub samples based on stream of course, locale and type of the management.

5. To find out whether significant relationship between screen time and mental health status of prospective teachers for the total sample and sub samples based on stream of course, locale and type of management of the institution.

Hypotheses of the Study

1. There exist significant difference between mean score of screen time among prospective teachers for the sub samples based on stream of course, locale and type of management of the institution.

2. There exist significant difference between mean score of mental health status among prospective teachers for the sub samples based on stream of course, locale and type of management of the institution.

3. There exist no significant relationship between screen time and mental health status among prospective teachers for the total sample and sub samples based on stream of course, locale and type of management of the institution.

Methodology of the Study

Method

The proposed study adopts a quantitative study, carried out using descriptive survey method to understand the relationship between screen time and mental health of prospective teachers.

Sample

The study will be conducted on a sample of 300 prospective teachers at graduate level from various Teacher Education Colleges under University of Calicut. The sample selection was done using Stratified Sampling Technique giving due representation to stream of course, Locale, and Type of management of the institution.

Tools used for the Study

- To Measure Screen Time - Questionnaire (Aswani & Rishad, 2021)
- To measure Mental Health - Mental Health scale (Shimna and Dr. Afeef Tharavattath, 2015)

Statistical Techniques

Preliminary Analysis

Measure of central Tendency - Mean, Median, Mode and Standard Deviation.

Major Analysis

1. Percentile

2. Mean difference analysis

3. Karl's Pearson's coefficient of Correlation

Scope and Limitations of the Study

The present study indented to find out the Relationship between Screen Time and Mental Health status among Prospective Teachers under Calicut University. The present study was conducted by using the questionnaire that developed by Investigator and supervising teacher to measure screen time and adopted mental health scale for determining the status. much care was taken to give due representative to stream of course, locale of the student, type of management of the institution. The study was conducted on 300 prospective teachers under Calicut University.

Limitation of the Study

Even though precautions were taken to make the study accurate as possible, certain limitations have crept in to the study. The following are some of

the limitations of the study.

- The data was collected through Google form over online mode at the pandemic situation by covid-19.
- In this study most of the references are having through online mode. cant utilize much library facilities in this pandemic situation.
- Colleges were closed due to restriction with social distancing at covid-19
- Unequal number of males and females. At the beginning of the study it was decided to analyze the data based on the gender.

In spite of all these limitations, the investigator tried her maximum to obtain valid data and to reveal valid conclusions.

Organization of the Report

The report of the study is presented in five chapters. The detail incorporated in each chapter is as follows.

Chapter I: **Introduction**

This chapter deals with a brief introduction to the problem, need and significance of the study , statement of the problem, definition of key terms, objective of the study, methodology, scope and limitations of the study.

Chapter II: **Review of Related Literature**

The chapter includes theoretical over view and summary of the related studies of the variable screen time and mental health.

Chapter III : **Methodology**

This chapter includes the methodology of the study, variables of the study, tools used for the study, sample used for the study, administration of tools, consolidation of data and statistical techniques used for the analysis.

Chapter IV : **Analysis and Interpretation of the Data**

This chapter bring contain of the data, interpretation and discussion of the result with graph.

Chapter V: **Summary, Findings, Conclusion and Suggestions**

This chapter covers major findings of the study, Tenability of hypotheses, Educational implications and suggestions for further research.

CHAPTER II

REVIEW OF RELATED LITERATURE

- *Theoretical Overview*
- *Review of Related Literature*
- *Conclusion*

REVIEW OF RELATED LITERATURE

John w. Best and James V. Kahn (1992 opine, “A summary of recognized authorities and of previous research provides evidence that the researcher is familiar with what is already known and what is still unknown and untested.”

The primary purpose of literature review is to assist readers in understanding the whole body of available research on a topic and informing readers the strength and weakness of studies within the body. Review of literature helps in knowing the difficulties encountered by the scholar and also finding out remedial measures to escape from the pitfall and it would necessary for the determination of significance of the study.

According to Abdullah and Levine, the material gathered in literature review should be included as part of the research data, since it influence the problem and research design. Which also can used to compare the findings and result of the present study? A literature review is the processing of locating, reading and evaluating the research literature in the investigators area of interest. In order to get an insight to the theoretical background of the subject of study, related literature is theoretically reviewed. For this purpose the investigator review the theoretical aspects of the variable in the following section. The result of review is summarized in this chapter. Both theoretical review and Review of related studies are attempted under two sections.

1. Theoretical overview

2. Review of related studies

Theoretical Overview

Theoretical Overview of Screen Time

Screen time is the amount of time spends using a device that has screen such as TV, computer, games, console, tablet or smart phone. The technology children have access today is changing their world and providing them with endless access to information and opportunities. Two theories explain the risk of excessive recreational screen time: The content theory and displacement theory.

The Content Theory

The children are watching or doing online is problematic-has received disproportionate attention.

The Displacement Theory

The time spent online means not doing other things, and that it's the loss of other activities such as outdoor play or reading that may result in problems paying attention or gaining too much weight.

Displacement theory refers to the premise that time spend consuming digital media will displace time spent on healthier activities. Instead, physical activity and screen time may operate most independently of each others, and other variable may more likely to contribute to rates of physical activity. Some children may already be predisposed to physical activity, and some of those children may conversely, for parents and children who were not close, using text message to interact decreased their overall communication (Matsuda, 2005; UNICEF, 2017).

International Journal of Behavioral Nutrition and Physical activity, researchers identified four different types of screen time, and explored youth outcomes (physical outcomes, global health. Social and emotional functioning, temperature profile and school achievement) associated with each category.

Types of Screen Time

1. Passive (TV)
2. Educational (computer for homework)
3. Interactive (video games)
4. Social (social media)
5. Revolutionary Edutainment screen time.

Passive Screen Time

Passive outcome has the worst outcomes. The passive screen is enticing, entrancing, and sweet-but like refined sugar, too much is not good.

Educational Screen Time

Educational screen time is linked to positive educational outcomes and does not negatively impact the other outcomes like physical ones.

Social Screen Time

Social screen time is associated with poor-health related quality of life.

Revolutionary Edutainment Screen Time

Edutainment is exciting, physical and creative. It is non -passive, non-social media, non- video game which provide new way to entertainment.

The American Academy of Pediatrics (AAP) recommends that children ages to 3-5 years should spend no more than one hour a day in front of screen time at all, and pacing consistent limits on media time on children 6 years and older.

There are so many benefits from using technology. Computers can be used to research, play online games, and improve language skills. Television can offer educational programs such as documentaries and other educational materials. Video games can encourage developmental skills such as hand-eye coordination. Some motion-controlled, active games can also promote physical activity such as dancing.

The American Academy of pediatrics released a new policy about screen time and children, saying too much time in front of electronic media can contribute to numerous health risks, including obesity. The AAP recommends that children under two have no screen time. For kids older than two, even teenagers, the AAP says no more than two hours a day. That include keeping TVs and any wireless devices out of bedroom and co-viewing TV movies and videos with kids and teens as a way of discussing family values.

Theoretical Overview Mental Health

The World Health Organization define mental health as ‘a state of well-being in which every individual realizes his or her own potential, can cope with

the normal stress of life, can work productively and fruitfully, and is able to make a contribution to her or his community". The definition emphasize that mental health is more than the absence of mental illness. Knowledge about the prevalence and determinants of mental health is important for informing promotion and intervention programs.

Characteristics of Metal Health

Mental Health refers not only to emotional well-being but also to how people think and behave. There are a number of different factors that have been found to influence mental health.

Life Satisfaction

A person's ability to enjoy life is frequently used as an indicator of mental health and wellness. It is often defined as the degree to which a person enjoys the most important aspects of their life. Some factors that have been found to play an important role in life satisfaction includes the absence of feeling ill, good relationships, a sense of belonging. Being active in work and leisure, a sense of achievement and pride, positive self perceptions, a sense of autonomy, and feelings of hope.

Resilience

The ability to bounce back from adversity has been referred to as resilience. People who are resilient also tend to have a positive view of their ability to cope with stress but to thrive even in the face of it.

Support

Social support is important to mental health. Loneliness has been shown to have a number of negative health effects. It has been linked to problems with both physical and mental including depression, heart disease, memory problem, drug misuse, alcoholism, and altered brain function.

Flexibility

Having rigid expectations can sometimes create added stress. Emotional flexibility may be just as important as cognitive flexibility. Mentally healthy people experience a range of emotions and allow themselves to express these feelings, finding them to be unacceptable.

According to WHO, Good mental health is defined as the state of well-being where individuals are able to:

1. Realize their own potential

2. Work productively

3. Cope with normal stress of life

4. Make a positive contribution to the society.

Mental and psychological well-being encompasses the way you feel about yourselves, but also the way you deal with external situations and the quality of your relationship.

God mental health is not simply the absence of diagnosable mental health problems, although god mental health is likely to help protect against development of many such problems (World Health Foundation).

Good mental health is characterized by a person's ability to fulfill a number of key functions and activities including,

1. Ability to learn
2. The ability to feel, express and manage a range of positive and negative emotions
3. The ability to form and maintain good relationship with others
4. The ability to cope with and manage change and uncertainty.

WHO says Adolescence is a crucial period for developing and maintaining social and emotional habits important for mental well-being. These include adopting healthy sleep patterns, taking regular exercise, developing coping, problem solving and inter personal skills etc. WHO stressed that, multiple factors determine mental health outcomes. Media influence and gender norms can exacerbate the disparity between an adolescent's lived reality and their perceptions or aspirations for the future. Adolescents with mental health conditions are in turn particularly vulnerable to social exclusion, discrimination, educational difficulties, risk taking behaviors, physical ill-health and human rights violations.

Positive Mental Health

Positive mental health is not simply the absence of mental health issues, such as depression or anxiety. Being mentally positive is predominantly about the presence of positive characteristics such as feeling of purpose, contentment, maintaining fulfilling relationship and participating in the life to the fullest. Positive mental health allows to enjoy all the activities want to participate in. It doesn't mean you will be never sad or go through emotionally-challenging times. However those with positive mental health will be able to bounce back more easily from these experiences called mental resilience.

The positive dimension of mental health is stressed in WHO's definition of health as contained in its situation: "Health is as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Concept of mental health include subject well-being, perceived self efficiency, autonomy, competence, inter-generational dependence and recognition of the ability to realize one's intellectual and emotional potential. Mental health is about enhancing competencies of individuals and communities and enabling them to achieve their self-determined goals. Mental health should be a concern for all of us, rather than only for those who suffer from a mental disorder.

Mental health problem affect society as a whole, and not just a small isolated segment. They are therefore a major challenge to global development. No group is immune to mental disorders, but the risk is higher among the poor, homeless, the unemployed, persons with low education, victims of violence, migrants and refugees, indigenous populations, children and adolescents, abused

women and the neglected elderly.

For all individuals, mental, physical and social health are closely interwoven, vital stands of life. As our understanding of this interdependent relationship grows, it becomes ever more apparent that mental health is crucial to the overall well-being of individuals, societies and countries. Unfortunately, in most parts of the world, mental health and mental disorders are not accorded anywhere the same importance as mental health. Rather, they have been largely ignored or neglected.

WHO considers 'Mental Health as a state of well-being in which an individual realize his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community". Mental health has three components like emotional well-being include happiness, interest in life, and satisfaction. Psychological well-being include personality, being good at managing responsibilities of daily life, and being satisfied with one's own life. Social well-being refers to positive functioning and involving having something to contribute to society.

Good mental health is more than just the absence of mental illness. It can be seen as a state of mental health that allows one to flourish and fully enjoy life. Some of the factors that affect the mental health of youth are

Heredity factors

The general emotion pattern, temperament, ability to control emotions, ability to cope with stress etc. of an individual largely on the structural and

physiological characteristics of brain which is genetically decided.

Physical Health

Diseases, injuries, and other physical problems often contribute to poor mental health and sometimes metal illness. More commonly, poor physical health can affect self-esteem and people's ability to meet their goal, which leads to unhappiness or even depression. Individuals with poor physical health, birth defects, chronic diseases, physical handicaps, malnutrition etc. are found to have poor mental health than one with healthy and robust body.

Socio-cultural environment

The socio-cultural environment in which the learner is brought up has got tremendous influence on one's social conformity, attitude towards self and attitude towards others. All these factors influence his, personal and social adjustability and ultimately affect his Mental Health.

Intelligence

General mental ability of the learner is an important factor contributing to social adjustability and success in social situation. A child with higher reasoning ability understands conflicting situations more legibility and exercise control over them to succeed.

Disorganized family environment

Family atmosphere, parental attitude warmth of relationship in the family, parental conflicts, sibling rivalry, family size, type of family etc. influence

children's social adjustability and mental health. Families having discords among members, lack of supervision and intellectual stimulation, harsh discipline negatively influences mental health.

Habit Training in School

Learning of good practice, customs conventions, etiquettes, manners etc. from the family or school will help the children to reduce interpersonal conflicts or friction thereby fostering mental health. Getting involved in recreational pursuit, hobbies, social activities, sports, athletics etc. will help the child to lose himself meaningfully and maintain emotional equilibrium.

Ethical and Moral Upbringing

Moral behaviour of the parents, ethical standard of the neighborhood, moral experiences received from school, community etc. will shape the social and moral outlook of the children. This will affect the wholesome personal and social adjustability of the individual and influence his mental health.

School Related Factors

Frequent change in school, rejection from peers, bullying often lead to emotional, behavioral and academic problems and subsequent deterioration of mental health.

Marie Jahoda (Austrian- British Ideal psychologist) developed the theory of ideal Mental health at 1958. Jahoda identified six conditions associated with mental health.

- Positive view of the self
- Capability for growth and development
- Autonomy and independence
- Accurate perception of reality
- Environmental Mastery- able to meet the varying demands of day to-day situations.
- According to these approach if an individual is satisfying these criteria should be healthier.

Review of Related Studies

Review of Related Studies on Screen Time

Busch, Manders and Leeuw (2013) conducted a study on 'Screen Time Associated with Behaviors and Outcome in Adolescents'. The study revealed significance association between screen time behaviors and unhealthy behaviors as well as with health outcomes related to psychological problems, being overweight and having low GSE.

A study titled 'Sleep and use of electronic devices in adolescence : result from a large population- based study' was conducted by Hysingetal (2014). The objective of the study was to investigate daytime screen use and use of electronic devices before bedtime in relation to sleep. The study reported the negative relation between use of technology and sleep.

DeWeese (2014) conducted a study on 'Screen Time, How much is Too Much? Cost of technology on adolescent brain from California University'. The study show that technology is rising in school The social and emotional effects are being seen by teachers and the counsellors by student inability to put away their devices, their constant texting in and out of the classroom As well as rise in anxiety and depression.

A study Named 'Cross-sectional and longitudinal association between screen time and physical activity with school performance at different types of secondary school' was conducted by Poulain et al (2018). Cross sectional Analysis was carried out on 850 adolescents. The study reveals that media consumption has a negative effect on school environment.

Study Titled 'Pattern of screen time among middle school students in Chennai, Tamil Nadu' was conducted by Murugan (2019). Cross sectional analysis was carried out among 205 school students aged 11-15 years. The study reported that high proportion of middle school students are using smart phones for more than recommended screen time is associated with n health outcomes.

A study titled "Association between screen time and depression in adolescence" was conducted by Boers, Afzali and Newton (2019). The study revealed that social media and television cause symptoms of depression in adolescence.

Effects of 'Screen Time on neurodevelopment and learning, Memory, Mental Health, and neuro degeneration : a Scoping Review' was conducted by Neophytou, Man well and Enikelboom (2019). The study reveal that the

increased screen time having negative outcome such as lowered self-esteem, increased incidence and severity of mental health issues and addictions, slowed learning and acquisition and an increased risk of premature cognitive decline.

A study titled 'Correlation between screen time duration and school performance among primary school children at Tamil Nadu, India conducted by Kumar and Shirley (2019). Cross-sectional observation study was conducted among 134 primary students of the state. The study showed that there is no significant correlation between screen time duration and school performance in primary school children in this study.

A Study titled 'Screen Time is Associated with Inattention problems in preschoolers' conducted by Tamana et al (2019). The study reported that more screen time significantly increased behavior problem at five years.

Madigan et al (2019) carried out study on Association between Screen time and Children's performance on a Developmental Screening Test. The study revealed directional association between screen time and poor performance on development screening test among very young children.

A study carried out on 'Association between Screen- Based Media use and Brain White Matter Integrity in Preschool-Aged Children' was carried out by Hutton et al (2019). The study revealed an association between increased screen time and lower micro structural integrity of brain white matter tracts supporting language and emergent literacy skills in preschool children.

A study titled 'Screen time use in children under 3 years old: a systematic review of correlates' was conducted by Duch et al (2013). The study showed that increased screen time in young children is linked to negative health outcomes and decreased cognitive and language development.

A study titled A longitudinal study on 'The relationship between screen time and adolescents alcohol use : The mediating role of social norms' was carried out by Boers, Afzali and Conrad (2020). The study was conducted on 3612 adolescents. The study revealed both at a correlational and longitudinal level association between alcohol use and television use promote positive social norms towards alcohol use, subsequently increasing adolescent's drinking behaviour.

Review of Related Studies on Mental Health

Meyer (1995) carried out a study on 'Minorities stress and Mental Health in Gay Men'. The study reported that internalized homophobia, expectation of rejection and discrimination and actual events of discrimination and violence considered independently and as a group predict psychological distress in man.

Edney (2004) conducted a study on 'Mass media effect and Mental Illness'. The study reported that the negative influence of mass media affect the perception of people in negative sense. That may lead to several mental health problems.

Knopf, Park and Mulye (2008) conducted a study on 'Mental Health of adolescents : A National Profile, 2008'. The study reported that majority of the adolescents are facing emotional stress.

Smit (2015) conducted a study on 'Mental Health problems among students'. Quantitative study was conducted to make result. The study revealed that majority of the students facing mental health problems but majority of the do not seek help of professional with mental health problems like negative influence of internet, anxiety, depression (Krylova, 2017) .conducted a study on the 'Impact of social media on depression in 18-34 years old in United States'. The study reported that social media can have an impact on individual's level of depression, anxiety.

A study titled 'A correlation study of emotional intelligence and mental health among MPSC student' was conducted by Sutar and Patil (2018). The study was conducted on sixty students. The result showed there is a significant relationship between emotional intelligence and Mental Health among MPSC students.

A study on 'A systematic review on effect of Electronic media among children and adolescents on substance abuse' was conducted by Khatib et al (2018). The study reported that use of electronic media promote positive outcomes in substance abuse.

Thomee (2018) carried out a study on 'Mobile Phone Use and Mental Health'. Review of the research That's Takes a Psychological Perspective on Exposure. Quantitative method was used to conduct the study. The study reported that frequent mobile phone use is associated with mental health outcome such as depressive symptoms and sleep problems.

Pascoe and Hetrick (2019) conducted a study on 'The impact of stress on Students in Secondary school and higher education'. The study revealed that the impact of stress negatively affect the student learning. The stress relating to education has demonstrated negative impact on student's learning capacity, academic performance, education and quantity, physical health, mental health and substance use outcome.

Granrud (2019) carried out a study on 'Mental Health problems among adolescents'. The study reported that majority of girls face mental health problem than boys due to gender disparity.

Brunbrog and Andreas (2019) was conducted a study on 'Increase in time spend on social media is associated with modest increase in depression, conduct problems, and episodic heavy drinking'. The study investigated that increase in time spend on social media were associated with increase in symptoms of depression, conduct problem, and frequency of episodic heavy drinking.

A study titled 'Association between Mobile Media use and Expressive language delay in 18 - Month old children' was conducted by Heuvel et al (2019). The study revealed positive association between mobile device use and expressive speech delays.

Baker (2019) carried out a study on 'The influence of Social Media: Depression, Anxiety, and self -concept'. The study reported that students who used more social media platform and spent more time using social media were more likely to perceive themselves as being addicted that lead to anxiety and depression.

A study on 'Children and Adolescents Mental Health: a Systematic Review of Interaction based interventions in school and communities' was carried out by Carrion et al (2019). The study showed positive effect on mental health of children and adolescents, both in decreasing symptoms of mental disorder and in promoting emotional wee-being.

A study on The 'Association between video Gaming and psychological functioning' was conducted Heiden et al (2019). The study revealed that video gaming negatively affects the psychological functioning that lead to low self esteem, poor school performance etc.

Shoukt (2019) was conducted a study on 'Cell phone addiction and psychological and physiological health in adolescents'. The study reported there is a relationship between cell phone addiction and adolescent's mental or physical health whether they have direct or indirect relation.

Sohn, Rees and Carter (2019) conducted a study on 'Prevalence of problematic smart phone usage and associated mental health outcomes among children and young people'. The study reported that causes deleterious mental health symptoms include depression, anxiety, high level of perceived stress and poor sleep.

A study titled 'Social media use and its connection to mental health: A systematic review' was carried out by Karim et al (2020). The study showed that social media can affect the level of anxiety and depression in individual.

A study titled 'Anxiety and depression and their relation to the use of electronic devices among secondary school students in Al-Khobar, Saudi Arabia' was conducted by Salman, Debel and Darwish (2020). Cross -sectional study was used to conduct this study. The findings of the study showed that adolescents might benefit from a restricted use of electronic devices.

Summary

The investigator gone through various studies related to the variables of the problem. From these studies it is concluded that screen time and mental health status depends on many variables. Only few studies are conducted on relationship between screen time and mental health. No more studies were conducted on Relationship between screen time and mental health of Prospective teachers. Therefore, conducting studies that reveal relationship of Screen Time and Mental Health of Prospective Teachers become relevant. The investigator considered only Stream of course, Locale and Type of management to stratify.

CHAPTER III

METHODOLOGY

- *Variable of the Study*
- *Objectives of the Study*
- *Hypotheses of the Study*
- *Sample Selected for the Study*
- *Tools used for Data Collection*
- *Administration of Tools*
- *Scoring and Consolidation of Data*
- *Statistical Techniques Used for the Study*

METHODOLOGY

Research in common parlance refers to a search for knowledge in the field of education. Once can also define research as a scientific and systematic search for pertinent information on specific topic. In fact, Research is an art of scientific investigation. Research is a systematized effort to gain the knowledge. (Redman and Moray).

Research methodology is a way to systematically solve the research problem. A suitable method helps the researcher to carry out the work in scientific manner. Methodology refers to the general strategy followed in collecting data necessary for solving the problem. The method needed for the study is decided by the nature of the problem and the type of data required for answering the question relating to the problem.

According to Best and Khan (2002) the survey method gathers data from a relatively large number of cases at a particular time. It is not concerned with According to Best and Khan (2002) the survey method gathers data from a relatively large number of cases at a particular time. It is not concerned with generalized statistics that result when data are abstracted from number of individual cases.

The present study entitled “Relationship between Screen Time and Mental Health” mainly attempts to find out the relationship of Screen Time and Mental Health of prospective teachers. The design of the study is described under the following major sections.

- Variables
- Objectives
- Hypothesis
- Sample
- Tools
- Mode of data collection
- Scoring and consolidation
- Statistical techniques

The details of each of the above is given below

Variables of the Study

The present study was conducted to find out the relationship between Screen Time and Mental Health. The variables of the study are

1. Screen Time
2. Mental Health

Objectives of the Study

1. To find out the extent of Screen Time among prospective teachers in the total sample and sub samples based on stream of course, locale and Type of management of the institution.
2. To find out the extent of Mental Health status among prospective teachers in the total sample and sub samples based on stream of course, locale and Type of management of the institution.

3. To find out whether there is any significant difference between the mean score of screen time among prospective teachers for the sub samples based on stream of course, locale and management of the institution.

4. To find out whether there is any significance difference between the mean score of mental health status of prospective teachers for the sub samples based on stream of course, locale and type of the management.

5. To find out whether significant relationship between screen time and mental health status of prospective teachers for the total sample and sub samples based on stream of course, locale and type of management of the institution.

Hypotheses of the Study

1. There exist significant difference between mean score of screen time among prospective teachers for the sub samples based on stream of course, locale and type of management of the institution.

2. There exist significant relationship between mental health status among prospective teachers for the sub samples based on stream of course, locale and type of management of the institution.

3. There exist no significant relationship between screen time and mental health status among prospective teachers for the total sample and sub samples based on stream of course, locale and type of management of the institution.

Sample Selected for the Study

Selection of sample is an important part of any research. The sample of 300 prospective teachers was taken as sample. The sample were selected under stratified sampling techniques by giving due representation to the factors like Stream of course (Arts, Science) of the students, locale (Rural or Urban) of the college and type of management (Government and Private) of the college.

Tools used for Data Collection

Collection of relevant data is an important work of any research work. The selection of suitable tool is very necessary for producing a successful research work. For the present study the investigator used the following tools.

- Screen Time - Questionnaire (Rishad & Aswani - 2021)
- Mental Health Status scale- (Dr. Afeef Tharavattath & Shimna - 2015)

Administration of Tools

Screen Time Questionnaire

In this study the investigator used screen time Questionnaire to assess the relationship between screen time and mental health of prospective teachers.

Planning of the Tool

Screen time is the amount of time shared in front of electronic devices such as smart phone, television, I-pad and tablet etc. The tool is constructed by focusing the areas such as Academic performance, Physical and mental problems, Social skills, cognitive thinking, inter personal skills, and behaviour of

prospective teachers. The tool contain different kinds of items with both positive and negative nature. For the positive item the respective scores to five responses are 5, 4, 3, 2, 1 and for the negative items the scoring was done on the revise order. For the dichotomous questions the scores were given as 2 and 1 respectively.

Validity

According to Best and Khan (2012), validity is that "quality of data gathering instrument or procedure that enables to measure what is supposed to measure".

The validity of the present test was ensured by using face validity. Each item of the test was evaluated by the experts in the field of education. Modifications were made in the test as per suggestions of these expert before finalizing the test.

Reliability

Reliability refers to the consistency with which the tool measures what it intends to measure. The reliability of the questionnaire was established using Cornbach alpha coefficient. Cronbach alpha is a number that tells how well a set of items measure a single characteristics. The Cornbach coefficient of the tool was found to be 0.85. The value shows that the questionnaire tool is reliable for measuring screen time.

Mental Health Scale

Mental health scale was constructed by Dr. Afeef Tharavattath and Shimna in 2015. The tool contain 45 items based on eight components of Mental Health. The tool consist of both positive and negative items. Each item has five alternative responses such as always, often, sometimes, rare and never. A score of 5, 4, 3, 2, 1 respectively given for positive items and negative items are scored in the reverse order.

Validity

The validity of the item was determined by using face validity.

Reliability

Reliability is determined by using split half odd and even number method. For this purpose 45 items in the test is split into two halves for 30 students. The first set of score represented the odd numbered items 1, 3, 7, 9 etc. And the second set of scores even numbered items 2, 4, 6, 8etc. The score obtained in each half used for finding out reliability coefficient and it was found to be 0.76.

Mode of Data Collection

The investigator sought permission from the head of the selected Teacher Training Institution for collecting data and made necessary arrangement for it.

The data collection was carried out over online mode. Both screen time questionnaire and mental health scale are shared to each students and give

necessary information to fill the data.Thus, both data of respective tools are collected from each prospective teachers.

Scoring and Consolidation of Data

A respondent has to respond 39 items for Screen time questionnaire by choosing any one of the responses that given to each items. For positive item the score was calculated in the 5,4,3,2,1 order and for negative items in the reverse order. Dichotomous questions were scored as 2 and 1 respectively. For the the total score were calculated for each item and further analysis was done by using statistical technique.

A respondent has to respond to 45 items for mental health scale by choosing any one of the five responses such as always, often, sometimes, rarely, never. For positive items the score was calculated in the 5,4,3,2,1 order and for negative items in the reverse order. The total score were calculated for each items and further analysis was done by using statistical technique.

Statistical Technique used for the Study

Preliminary Analysis

The important statistical constants such as mean, median, mode, standard deviation, skewness and kurtosis of the two variable were computed for the total sample.

Major Analysis

Percentiles

Percentile is points of a given distribution below which given percentage of cases lies. To find out norms for the total, percentiles are used. The formula to find out the percentile is

$$P_i = L + \frac{h}{f}\left[\frac{i}{100} \times N - C\right]$$ (Garret, 2012)

Where,

L = Lower limit of class containing P_i

f = Frequency of the class containing P_i

h = Magnitude of class containing P_i

C = Cumulative frequency of the class preceding the class containing P_i

N = Total number of the sample

Test of Significance between Mean ('t' test)

The statistical technique, test of significance between mean for different categories is used to find out there exist any significance difference in the Screen Time and Mental Health status between relevant sub samples stream of course, Locale and type of management.

The test of significant difference between two means is known as the 't' test. The formula to calculate 't' is

$$t = \frac{(X_1 - X_2)}{\sqrt{\frac{(S_1)^2}{n_1} + \frac{(S_2)^2}{n_2}}}$$

Where,

X_1 = Mean of each item in the upper group

X_2 = Mean of each item in the lower group

s_1 = standard deviation of each item in the upper group

s_2 = standard deviation of each item in the lower group

n_1 = Sample size of upper group

n_2 = Sample size of lower group

Pearson's Product Moment Coefficient of Correlation

The most often used and most precise coefficient of correlation is the Pearson's product Moment Coefficient of Correlation (r). To estimate the extend relation of Screen Time and Mental Health Status the technique of Pearson's Product Moment Coefficient of Correlation (r) is given below

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2) + (N\sum Y^2 - (\sum Y)^2)}}$$

Where,

$\sum X$ = Sum of *X* scores

$\sum Y$ = Sum of *Y* scores

$\sum X^2$ = Sum of Squares of *X* scores

$\sum Y^2$ = Sum of squares of *Y* scores

$\sum XY$ = Sum of the product of paired *X* and *Y* scores

N = Number of pairs

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

- *Objectives of the Study*
- *Hypothesis of the Study*
- *Preliminary Analysis*
- *Major Analysis*

ANALYSIS AND INTERPRETATION OF DATA

The present study is to find the Relationship between screen time and mental health of Prospective Teachers. This chapter presents the details of the statistical analysis and result obtained.

Objectives of the Study

1. To find out the extent of screen time among prospective teachers in the total sample and sub sample based on stream of course, locale and type of the management.

2. To find out whether there is any significant difference between mean score of screen time among prospective teachers for the total sample and sub sample based on stream of course, locale and type of the manage

3. To find out whether there is any significant difference between the mean score of metal health among prospective teachers for the sub samples based on stream of course, locale and management of the institution.

4. To find out whether there is any significance difference between the mean score of mental health status of prospective teachers for the sub samples based on stream of course, locale and type of the management.

5. To find out whether significant relationship between screen time and mental health status of prospective teachers for the total sample and sub samples based on stream of course, locale and type of management of the institution.

Hypotheses of the Study

1. There exist significant difference between mean score of Screen Time among prospective teachers for the sub samples based on stream of course, locale and type of management of the institution.

2. There exist significant difference between mean score of Mental Health status among prospective teachers for the sub samples based on stream of course, locale and type of management of the institution.

3. There exist no significant relationship between Screen Time and Mental Health status among prospective teachers for the total sample and sub samples based on stream of course, locale and type of management of the institution.

Data Analysis

Data analysis is the process of extracting information from data. It is the process of assigning meaning to the collected information and determining the conclusions, significance and implications of the finding. In other words, analysis means the process of breaking up the study into its constituent parts of categories according to specific questions under the statement of the problem. A separation of a whole into its constituent parts (Merriam Webster, 2012).

Data analysis is the process of systematically applying statistical and /or logical techniques to describe and illustrate, condense and recap and evaluate data. As essential component of ensuring data integrity is the accurate and appropriate analysis of research findings. Data analysis is a process of applying statistical

technique to organize, represent, describe, evaluate and interpret data. It aims at evaluating the data using analytical and logical reasoning to examine each components of the data provided.

There are mainly two type of data analysis, qualitative and quantitative. Qualitative data is that uses words and descriptions. Qualitative data can be observed but is subjective and therefore difficult to use for the purpose of making comparisons. Descriptions of texture, taste or an experience are all examples of qualitative data. Quantitative data can be represented visually in graphs and tables and be statistically analyzed. Here, the investigator followed the quantitative one.

Analysis and results are described under separate heading viz:

- Preliminary Analysis
- Major Analysis

    a) Extent of screen time and mental health among prospective teachers based on the sub sample stream of course, locale and type of management

    b) Percentile
    c) Mean difference Analysis
    d) Correlation

Preliminary Analysis

In preliminary analysis the distribution of scores of the variables screen time and mental health were examined. The important statistical constants such as

mean, median, mode, standard deviation, skewness and kurtosis were calculated for the total sample and subsamples of the variable screen time and mental health. This was done to see whether the The variables are normally distributed. The details of the analysis mentioned above are given in the Table 1.

Table 1

Statistical Constants of the Variable Screen Time of Prospective Teachers for Total and Relevant Subsamples

Sample	**N**	**Mean**	**Median**	**Mode**	**SD**	**Skewness**	**Kurtosis**
Total	300	121.29	117	114	20.82	0.728	-0.016

Table 1 reveals that the measure of central tendencies viz, mean, median, mode are approximately equal. Thus the variable was normally distributed. The extent of skewness of index of symmetry is 0.728, which indicate the distribution is positively skewed. The index of kurtosis is -0.016, which means the distribution is lepto kurtic. The graphical representation of the score of total sample and sub sample is given in figure 1.

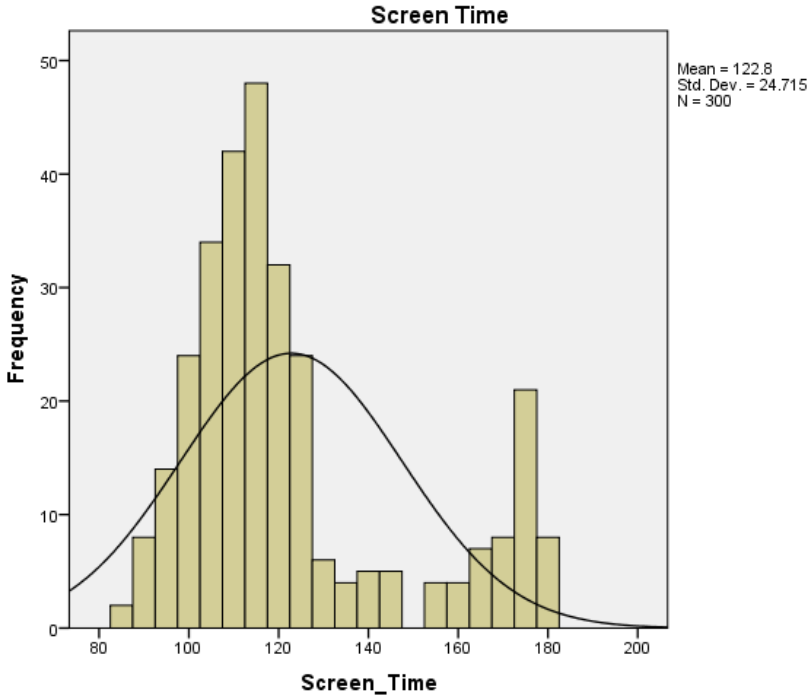

Figure 1. *Smoothed frequency curve of the variable Screen Time for the total sample*

This statistical constants and graphical representation of the variable screen time reveals that the distribution of the variable 'screen time' is approximately normal.

Table 2

Statistical Constants of the Variable Mental Health Status of Prospective Teachers for Total and Relevant Subsamples

Sample	**N**	**Mean**	**Median**	**Mode**	**SD**	**Skewness**	**Kurtosis**
Total	300	143.48	144.00	141	15.447	-0.642	2.893

Table 2 reveals that the measure of central tendencies viz, mean, median, mode are approximately equal. Thus the variable was normally distributed. The extent of skewness of index of symmetry is -.642 which indicate the distribution is negatively skewed. The index of kurtosis is 2.893, which means the distribution is platy kurtic. The graphical representation of the score of total sample and sub sample is given in figure 2.

Figure 2. *Smoothed frequency curve of the variable Mental Health Status of Prospective Teachers for the total sample*

This statistical constants and graphical representation of the variable mental health reveals that the distribution of the variable 'screen time' is approximately normal.

Major Analysis

Extent of Screen Time and Mental Health among Prospective Teachers in the Total Sample and Relevant Sub Sample

a) Extent of screen time among prospective teachers in the total and sub samples.

Extent of screen time among prospective teachers in the total and sub sample based on stream of course, type of management and locale of the students are established by calculating mean scores. The mean score of screen time among prospective teachers in the total sample and sub sample is presented in Table 3.

Table 3

Mean score of the Screen Time of prospective teachers in the total sample and relevant sub samples

Total	Stream of Course		Locale		Type of Management	
	Arts	Science	Urban	Rural	Government	Private
121.29	123.46	119.62	120.65	121.18	123.11	120.70

Table 2 reveals that the mean score of screen time among prospective teachers in the total sample is 121.29. This means the screen time among prospective teacher is moderate. While the stream of course is considered, arts teachers have high mean score in screen time than the science prospective teachers. When the type of management is considered, government college prospective teachers have higher screen time than private college prospective teachers. When consider the locale of the prospective teachers, Urban prospective teachers have more screen time than the rural prospective teachers.

Discussion

When considering the total sample, the level of Screen time among prospective teachers is moderate. When we consider the sub sample based on stream of course, arts prospective teachers have more screen time than the science prospective teachers. When we consider the sub sample based on locale, urban prospective teachers have more screen time than rural prospective teachers. With respect to the type of management of college, government college prospective teachers have more screen time than Private college prospective teachers.

b) Extent of mental health among prospective Teachers in the total and sub samples

Table 4

Mean score of the Mental Health of prospective teachers in the total sample and relevant sub samples

Total	Stream of course		Locale		Type of management	
	Arts	Science	Urban	Rural	Government	Private
143.48	141.43	145.07	143.44	143.51	144.55	143.13

Extent of mental health among prospective Teachers in the total and sub sample based on stream of course, type of management and locale of the prospective teachers are established by calculating mean scores. The mean score of mental health among prospective teachers in the total sample and sub sample is presented in Table 4.

Table 4 reveals that the mean score of mental health among prospective teachers in the total sample is 143.48. This means the mental health status among prospective teacher is moderate. While the stream of course is considered, Science prospective teachers have high mean score in screen time than the arts prospective teachers. When the type of management is considered, government college prospective teachers have high mental health than private college prospective teachers. When consider the locale of the prospective teachers, rural prospective teachers have more mental health than the urban prospective teachers.

Discussion

When considering the total sample, the level of mental health among prospective teachers is moderate. When we consider the sub sample based on stream of course, science prospective teachers have high mental health status than arts prospective teachers. When we consider the sub sample based on locale, rural prospective teachers have more screen time than urban prospective teachers. With respect to the type of management of college, government college prospective teachers have more mental health status than private college prospective teachers.

Percentile Norm

The extent of screen time and mental health of prospective teachers were established by calculating the percentile analysis. Percentiles P_{10},P_{20}, P_{30}, P_{40}, P_{50}, P_{60}, P_{70}, P_{80}, P_{90} were computed for the total sample and sub samples based on stream of course, locale and type of management of the institution. They are presented in Table 5.

Table 5

Percentile norms of the screen time and mental health of prospective teachers for the total sample and sub samples based on stream of course, locale and type of management of institution.

Variable	Sample		P_{90}	P_{80}	P_{70}	P_{60}	P_{50}	P_{40}	P_{30}	P_{20}	P_{10}
Screen Time	Total		153	138	129	123	117	113	108	104	99
	Subject Stream	Arts	157.8	141.20	133	125.20	119	114.8	109	103	97.40
		Science	148	135	126	122	114	111	107	103	99
	Type of Management	Govt.	156.50	143	132.50	126	122	114	109.50	105	94.50
		Private	153	136.60	128	122	116	112	107	103	99
	Locale	Rural	149.20	139.40	132	124	118	113.20	109	106	99
		Urban	159.20	135.40	127.80	122	116	110	105	101	97
Mental Health Status	Total		161.9	157	151	147	144	141	137	132	125
	Subject Stream	Arts	161.8	156	149.4	145	141	138	132.6	127.4	122.2
		Science	162	157	152	148	145	143	141	135	129
	Type of Management	Govt.	160.5	157	152	147	145	141	141	133	126
		Private	162	156.6	151	147	144	140	136	130.8	124
	Locale	Rural	160	157	151	146	143	140.2	136	132	127.8
		Urban	164	157	151.8	147	145	141	138	129	124

Discussion

Obtained mean value lies in between 40th and 50th percentile. The 40th percentile score of mental health among prospective teachers is 141. It indicates that 40 percentage of the prospective teachers mental health score is lies in the region of mean value. Hence concludes that mental health of prospective teachers is almost satisfactory.

Mean Difference Analysis

In this analysis part the difference in the mean score of screen time and mental health of prospective teachers were tested. For this two tailed test of significance of difference of variables on the basis of stream of course, local and type of management is subjected to 't' test and result were examined. The data, obtained result and interpretations are presented below.

a) Test of significance of difference between mean scores of screen time among prospective teachers based on the sub sample Stream of course, locale and type of management.

Stream of Course

Table 6

Data and Result of the Test of Significance of Difference between Mean Scores of Screen Time among Prospective Teachers based on Stream of Course

Stream	N	Mean	Standard Deviation	t-value	p-value	Level of Significance
Arts	131	141.43	123.46	1.587	.092	*NS
Science	169	145.07	119.62			

*NS: Not Significant (P>0.05)

Discussion

Table 6 indicate that mean score of Screen Time obtained for Arts stream is 131 and mean score obtained for science stream is 169. The value obtained for standard deviations are 123.46 and 119.62 respectively. The obtained 't' value is 1.587 which is less than the tabled value 1.96 at 0.05 level.

Interpretation

Table 6 shows that the t-value obtained for the variable screen time among prospective teachers of sub sample based on stream of course is 1.587, which is lesser than the table value 1.96 at 0.05 level. This reveals that there exists no significant difference in the mean scores of arts and science prospective teachers of with regard to their screen time. Thus it is concluded that there exist no significant difference in the mean score of arts and science prospective teachers with regards to their screen time.

Locale

Table 7

Data and Result of the Test of Significance of Difference between Mean Scores of Screen Time among Prospective Teachers based on Locale of Institution

Locale	N	Mean	Standard Deviation	t-value	p-value	Level of Significance
Rural	167	121.81	19.509	0.482	.201	*NS
Urban	133	120.65	22.422			

*NS: Not Significant (p>0.05)

Discussion

Table 7 indicate that mean score of screen time obtained for rural is 121.81 and mean score obtained for urban is 120.65 The value obtained for standard deviations are 19.509 and 22.422respectively. The obtained 't' value is 0.482 which is lower than the tabled value 1.96 at 0.05 level.

Interpretation

Table 7 shows that the t-value obtained for the variable screen time of prospective teachers of sub sample based on their locale of institution is 0.482, which is lower than the table value 1.96, which is significant at 0.05 level. Hence we conclude that there exists no significant difference between the mean scores of rural prospective teachers and urban prospective teachers with regard to their screen time.

Type of Management

Table 8

Data and Result of the Test of Significance of Difference between Mean Scores of Screen Time of Prospective Teachers based on Type of Management of Institution

Type of Management	N	Mean	Standard Deviation	t-value	p-value	Level of Significance
Government	74	123.11	22.597	0.862	.261	*NS
Private	226	120.70	20.226			

*NS: Not Significant (p>0.05)

Discussion

Table 8 indicate that mean score of screen time obtained for government is 123.11 and mean score obtained for science stream is 120.70. The value obtained for standard deviations are 22.597 and 20.226 respectively. The obtained 't' value is 0.862 which is lower than the tabled value 1.96 at 0.05 level.

Interpretation

Table 8 shows that the t-value obtained for the variable screen time of prospective teachers of sub sample based on type management of institution is 0.862, which is lower than the table value 1.96,at 0.05 level. Hence it concludes that there exists no significant difference between the mean scores of government and private prospective teachers with regard to their screen time.

b) Test of significance of difference between Mean scores of Mental Health among prospective teachers based on sub sample stream of course, Locale and Type of management.

Stream of Course

Table 9

Data and Result of the Test of Significance of Difference between Mean Scores of Mental Health Status of Prospective Teachers based on Stream of Course

Stream	N	Mean	Standard Deviation	t-value	p-value	Level of Significance
Arts	131	141.43	16.426	2.037	.042	.05
Science	169	145.07	14.493			

NS: Not Significant (P<0.05)

Discussion

Table 9 indicate that mean score of screen time obtained for Arts is 141.43and mean score obtained for science stream is 141.43 The value obtained for standard deviations are 16.426 and 145.07 respectively. The obtained 't' value is 2.037 which is greater than the tabled value 1.96 at 0.05 level.

Interpretation

Table 9 shows that the t-value obtained for the variable mental healthof prospective teachers based on their stream of course is 2.037, which is greater than the table value 1.96, which is significant at 0.05 level. It is clear that there exists significant difference in the mean scores of arts and science teachers with regard to their mental health Status. The results also shows that science prospective teachers have more mental health status than arts prospective teachers.

Locale

Table 10

Data and Result of the Test of Significance of Difference between Mean Scores of Mental Health Status of Prospective Teachers based on Locale of Institution

Locale	N	Mean	Standard Deviation	t-value	p-value	Level of Significance
Rural	167	143.51	13.415	.044	.055	*NS
Urban	133	143.44	17.724			

*NS: Not Significant (p>0.05)

Discussion

Table 10 indicate that mean score of screen time obtained for rural is 143.51 and mean score obtained for science stream is 143.44. The value obtained for standard deviations are 13.415 and 17.724 respectively. The obtained 't' value is .044 which is lower than the tabled value 1.96 at 0.05 level.

Interpretation

Table 10 shows that the t-value obtained for the variable screen time of prospective teachers of sub sample based on their locale of institution is 0.44, which is lower than the table value 1.96, which is significant at 0.05 level. Hence we conclude that there exists no significant difference between the mean scores of rural and urban prospective teachers with regard to their Screen Time.

Type of Management

Table 11

Data and Result of the Test of Significance of Difference between Mean Scores of Mental Health Status of Prospective Teachers based on Type of Management of Institution

Type of Management	N	Mean	Standard Deviation	t-value	p-value	Level of Significance
Government	74	144.55	13.875	.340	.689	*NS
Private	226	143.13	15.941			

*NS: Not Significant(p>0.05)

Discussion

Table 11 indicate that mean score of screen time obtained for government college is 144.55 and mean score obtained for Private is 143.13. The value obtained for standard deviations are 13.875 and 15.941 respectively. The obtained 't' value is .340 which is lower than the tabled value 1.96 at 0.05 level.

Interpretation

Table 11 shows that the t-value obtained for the variable screen time of Prospective teachers of sub sample based on type management of institution is .340, which is lower than the table value 1.96 at 0.05 level. Hence it conclude that there exists no significant difference between the mean scores of government and private prospective teachers with regard to their screen time.

Conclusion

The investigator found the mean difference analysis by obtaining the test of significance of difference between mean score of screen time and mental health among prospective teachers for the sub sample stream of course, locale and type of management of institution. The investigator observed that there exist significant difference in the mean score of mental health of prospective teachers with regards to stream of course. And there exist no significant difference in the mean score of screen time with regards to stream of course. There exist no significant difference between screen time and mental health of prospective teachers between rural and urban with regard to locale and government and Private with regard to type of management of the institution.

c) Correlation

Relationship between Screen Time and Mental Health of prospective teachers

The collected data has been analyzed to find out the coefficient of correlation between screen time and mental health of prospective teachers. The relationship between the variables is estimated using Pearson's Product Moment Coefficient of Correlation (r). The analysis and discussion of result with regard to correlation are as follows.

The correlation coefficient obtained for the variables Screen Time and Mental Health are presented in the following Table 12.

Table 12

Relationship between Screen Time and Mental Health Status among Prospective Teachers for the Total Sample and Subsample based on Stream of Course, Locale and Type of Management

Variables	Sample	Category	N	r	Level of significance	p-value
Screen Time & Mental Health	Total		300	.018	NS	.754
	Subject Stream	Arts	131	.004	NS	.962
		Science	169	.054	NS	.483
	Type of Management	Govt.	74	-.114	NS	.334
		Private	226	.057	NS	.394
	Locale	Rural	167	.002	NS	.981
		Urban	133	.032	NS	.718

Discussion

From this table it s cleared that the coefficient of correlation between screen time and mental health is .018, for the total sample. The value shows that

there is no relationship exists between screen time and mental health. And which is not significant at 0.05 level.

The correlation coefficient between screen time and mental health obtained for Arts stream prospective teachers is .004. This shows that there is no significant relationship between screen time and mental health of prospective teachers in the arts stream. The correlation coefficient obtained for Science stream is.054 which shows that there exist no significant relationship between screen time and mental health at 0.05evel.

The correlation coefficient between screen time and mental health obtained for government prospective teachers is 0-.114. This shows that there exist negative negligible relationship between screen time and mental Health of prospective teachers in Government College. The coefficient correlation obtained for private college teachers is .057. This value shows that there exist no significant relationship between screen time and mental health at 0.05 level.

The correlation coefficient between screen time and mental health obtained for rural prospective teachers is .002 which shows that there is no significant relationship between screen time and mental health at0.01 level. The correlation coefficient obtained for urban teachers is .032. The value shows that there exist no significant relationship between screen time and mental health at 0.05 level.

Conclusion

From the analysis the investigator reached a conclusion. There is no significant relationship between screen time and mental health of prospective teachers for the total sample. And also there exist negative negligible relationship between screen time and mental health of prospective teachers with regards to stream of course and no significant relationship among prospective teachers for the sub sample locale and type of management of the institution.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSION AND SUGGESTIONS

- ***Restatement of the Problem***
- ***Major Findings of the Study***
- ***Tenability of Hypotheses***
- ***Conclusion***
- ***Educational Implications***
- ***Suggestions for Further Research***

SUMMARY, FINDINGS, CONCLUSION AND SUGGESTIONS

One of the important aspects of research study is to analyze the findings of the collected data based on the objectives of the study. This chapter provides an overview of the significant aspects of the various stages of the study. The major findings of the study, their educational implications and suggestions for further research are given below.

Restatement of the Problem

The present study is entitled as "**Relationship between Screen Time and Mental Health of Prospective Teachers**."

Objectives of the Study

1. To find out the extent of Screen Time among prospective teachers in the total sample and sub samples based on stream of course, locality and Type of management of the institution.

2. To find out the extent of Mental Health status among prospective teachers in the total sample and sub samples based on stream of course, locality and Type of management of the institution.

3. To find out whether there is any significant difference between the mean score of Screen Time among prospective teachers for the sub samples based on stream of course, locality and management of the institution.

4. To find out whether there is any significance difference between the mean score of mental health status of prospective teachers for the sub samples based on stream of course, locale and type of the management.

5. To find out whether significant relationship between Screen Time and Mental Health status of prospective teachers for the total sample and sub samples based on stream of course, locality and type of management of the institution.

Hypotheses of the Study

1. There exist significant difference between mean score of Screen Time among prospective teachers for the sub samples based on stream of course, locality and type of management of the institution.

2. There exist significant difference between mean score of Mental Health status among prospective teachers for the sub samples based on stream of course, locality and type of management of the institution.

3. There exist no significant relationship between Screen Time and Mental Health status among prospective teachers for the total sample and sub samples based on stream of course, locality and type of management of the institution.

Methodology

The study adopted a quantitative study, carried out using descriptive survey method to understand the relationship between Screen Time and Mental

Health of prospective teachers.

Variables of the Study

In the present study researcher check the significant relationship between the variables:

1. Screen Time (Independent variable)
2. Mental Health (Dependent variable)
3. Classification of variables (Stream of Course, Locale and Type of Management of the Institution).

Sample of the Study

The study conducted on a sample of 300 prospective teachers at graduate level from various Teacher Education Colleges under University of Calicut. The sample selection was done using stratified sampling technique giving due representation to stream of course, locale, and Type of management of the institution.

Tools used for the Study

The following tools are used for data collection.

1. Screen Time questionnaire
2. Mental Health scale

Statistical Techniques Used

For the present study following statistical techniques were used.

1. Preliminary Analysis
2. Mean difference analysis
3. Percentile
4. Karl Pearson's Product Moment Coefficient Correlation

Major Findings

- The extent of screen time among prospective teachers in the total sample is moderate (121.29).
- Arts prospective teachers (123.46) have high screen time than science teachers (119.62).
- Rural prospective teachers (121.18) have more screen time than urban prospective teachers (120.65).
- Government prospective teachers (123.11) have more screen time than private teachers (120.70)
- Extent of mental health status among prospective teachers for the total sample is moderate (143.48).
- Science prospective teachers (145.05) have high mental health status than arts prospective teachers (141.43).

- Rural prospective teachers (143.51) have high mental health status than urban prospective teachers (143.44).
- Government prospective teachers (144.55) have high mental health status than private prospective teachers (143.13).
- No significant difference exist in the mean score of arts and science prospective teachers with regard to their screen time ($p>0.05$).
- No significant difference in the mean score of rural and urban prospective teachers with regard to their screen time ($p>0.05$).
- No significant difference between mean score of Government and Private prospective teachers with regard to their screen time ($p>0.05$).
- No significant relationship between mean score of Government and Private prospective teachers regard to their screen time ($p>0.05$).
- No significant relationship between screen time and mental health status of prospective teachers for the total sample ($r=0.018$).
- No significant relationship between screen time and mental health status of prospective teachers in the arts stream ($r=0.004$).
- No significant relationship between screen time and mental health of prospective teachers in the science stream ($r=0.054$).
- Negative negligible relationship found between screen time and mental health status of prospective teachers of Government colleges ($r=-0.114$).

- No significant relationship between screen time and mental health status of prospective teachers of Private colleges (r=0.057).
- No significant relationship between screen time and mental health status of prospective teachers of rural locality (r=0.002).
- No significant relationship between screen time and mental health of prospective teachers of urban locality (r=0.032).

Tenability of the Hypotheses

The tenability of the hypotheses is examined on the basis of findings of the study.

Hypothesis 1:

The first hypothesis states that, there exist significant difference between mean score of screen time among prospective teachers for the sub sample based on stream of course, locale and type of management of the institution. Analysis of the data shows that there exist no significant difference in the mean score of screen time among prospective teachers based on the sub sample stream of course, locale and type of management. Hence the first objective is rejected.

Hypothesis 2:

The second hypothesis states that, there exist significant difference between mean score of Mental health among prospective teachers for the sub sample based on stream of course, locale and type of management of the institution. Analysis of the data shows that there exist no significant difference in

the mean score of mental health among prospective teachers based on the sub sample stream of course, locale and type of management. Hence the second hypothesis is rejected.

Hypothesis 3:

The third hypothesis states that, there exist no significant relationship between screen time and mental health of prospective teachers for the total and relevant sub samples. Analysis of data revealed that there exist no significant relationship between screen time and mental health of prospective teachers for the total and relevant sub samples. Hence, the third hypothesis is accepted.

Conclusion

The study was conducted with the objective of finding the relationship between screen time and mental health of prospective teachers. This was studies using statistical techniques like Pearson's Product Moment Coefficient Correlation 'r'.

Based on the analysis the investigator reached the following conclusions. There exist no significant relationship between screen time and mental health of prospective teachers for the total and relevant subsamples.

Educational Implications

The findings of the present study made the investigator to put forward the following suggestions to improve the educational system and thus to increase the chance of good mental health of prospective teachers to make better decision in the daily life and future.

- Measures should be taken by the educational institutions to develop the mental health status of prospective teachers.
- Teachers, teacher trainees and students should develop power of tolerance and frustration in life.
- Teachers, teacher trainees and students should aware of the impact of excessive use of screen time on mental health and should able to take adequate measures to control screen time.
- Help students, Teacher trainees and prospective teachers to recognize the pros and cons of excess use of screen time.
- Enable the teacher, teacher trainees and students how to spend screen time for their academic achievement.
- Helps students to avoid the misuse of valuable time by spending more screen time.
- Curriculum should impart the awareness of screen time and mental health on students' mental health.
- Help the teachers to realize how to control screen time on their students.
- Help teachers and students to recognize the need of screen time in daily life in a required manner.

Suggestions for Further Research

The findings of the study and limitations encountered in the present study helped the investigator to suggest the following areas for further research.

1. The study can be conducted for students and teachers also.

2. The present study limited to Calicut university. It can be conducted under any university.

3. The study of relationship between screen time may conducted on any variable in an appropriate manner.

REFERENCES

REFERENCES

Anae, M et al (2002). Towards promoting youth mental health in Aotearoa, New Zealand: holistic houses of health. *International journal of mental health promotion,* 4(3). 5-14.

Bores, Afzali & Conrod (2020). A longitudinal study on the relationship between screen time and adolescents alcohol use: The mediating role of social norm. *Preventive Medicine,* 132. 105992.

Bores, Afzali & Newton (2019). Association between screen time and depression in adolescents. *University of New South Wales Sydney, Australia.* Retrieved from https://Jamanetwork.com

Brunbrog & Andreas (2019). Increase in time spent on social media is associated with modest increase in depression, conduct problems and episodic heavy drinking. *Journal of adolescents,* 74(2). 201-209.

Busch, Manders & Leeuw (2013). Screen Time associated with Health Behaviors and Outcome in Adolescents. *American Journal of Health Behavior,* 37(6). 819-30.

Carrion (2019). Children and Adolescents Mental Health: A systematic Review of Interaction-based Interventions in Schools and Communities. *Frontiers in Psychology,* 10.

Duch, Fisher, Ensari & Harrington (2013). Screen Time Use in Children Under 3 Year Old: A Systematic Review of Correlates. *International Journal of Behavioral Nutrition & Physical Activity,* 10. 102.

Edney (2004). Mass Media and Mental Illness: A Literature Review. *Canadian Mental Health Association, Ontario*. Retrieved from https://www.ontario.cmba.ca

Ghoneg, Bag, Singh (2020). Indian Education: Ancient, Medieval and Modern. Retrieved from https://www.intechopen.com

Granrud (2019). Mental Health Problems Among Adolescents. Inland Norway University. Retrieved from https://www.diva-portal.org

Heiden, Braun, Muller & Egloff (2019). The Association between Video Gaming and Psychological Functioning. *Frontiers in Psychology,* 10. 1731.

Heuvel, Julia & Briken (2019). Mobile Media Device Use is Associated with Expensive Language Delay in 18 Month Old Children. *Journal of Developmental and Behavioral Pediatrics,* 210(2). 99-104.

Hutton, Dudley, Kraus & Dewitt (2019). Association between Screen based Media Use and Brain White Matter Integrity in Preschool-aged Children. *JAMA Pediatrics,* 174(1). e193869.

Karim, Oyewande, Abdalla & Ehsanullah (2020). Social Media Use and its Connection to Mental Health: A Systematic Review. *Cureus,* 12(6).

Khatib, Sinha & Syed (2018). A Systematic Review on Effect of Electronic Media among Children & Adolescents on Substance Abuse. *Indian Journal of Community Medicine,* 43.

Knopf, Park, M & Mulye (2008). The Mental Health of Adolescents: A National Profile. National Adolescent Health Information Center. Retrieved from https://nahic.ussfiedu.

Madigan, Browne, Racine, Moi & Tough (2019). Association Between Screen Time and Children's Performance on Developmental Screening Test. *JAMA Pediatr-2019*, 173(3). 244-50.

Mental Health Foundation (2015). Fundamental Facts about Mental Health. Retrieved from https://www.Mentalhealth.org.uk

Murugan (2019). Pattern of Screen Time among Middle School Students in Chennai, Tamilnadu. *International Journal of Preventive, Curative & Community Medicine,* 5(4).

Myer (1995). Minority Stress and Mental Health in Gay Man. *Journal of Social Behavior,* 36(1). 38-56.

Neophytou, Man Well & Enikelboom (2019). Effect of Excessive Screen Time in Neurodevelopment and Learning, *International Journal of Mental Health and Addiction,* 19(7).

Nicky Hockly. (n.d). Definition of Screen Time. Retrieved from https://www.merriam-webster.com/dictionary/screen+time

Pascoe & Hetrick (2019). The Impact of Stress on Students in Secondary School and Higher Education. *International Journal of Adolescents and Youth*, 25(1).

Poulain, Peschel, Vogel & Kiess (2018). Cross Sectional and Longitudinal Association of Screen Time and Physical Activity with School Performance at Different Types of Secondary School. *BMC Public Health.* 18. 563.

Rafel, CA (2014). Screen Time how much is too much. Dominica University of California. Retrieved from https://files.eric.ed.gov.

Salman, Debel & Darwish (2020). Anxiety, Depression and their Relation to the use of Electronic Device among Secondary School Students in Al-khobar, Saudi Arabia. *Journal of Family and Community Medicine,* 27(1). 53-56.

Sanyal, Ganguly (2011). *Education Philosophy and Practice*. New Delhi: Decent Books.

Shirley & Kumar (2019). A Study on Correlation between Screen Time Duration and School Performance among Primary School Children at Tamilnadu, India. *Journal of Contemporary Pediatrics,* 7(1). 117.

Shoukt (2019). Cell Phone Addiction and Psychological and Physiological Health in Adolescents. *EXCLI Journal,* 18. 47-50.

Smit (2015). Mental Health Problem among Students. Vrije Universitieit Amsterdam. Retrieved from https://www.huisartsenamsterdam.

Sohn, Rees & Carter (2019). Prevalence of Problematic Smart Phone usage and Associated Mental Health Outcomes among Children and Young People. *BMC Psychiatry.* 19. 356.

Sutar & Patil (2018). A Correlational Study of Emotional Intelligence and Mental Health among MPSC Students. *The International Journal of Indian Psychology.* 6(2).

Tamana, Ezeugwu, Chikuma & Lefebvre (2019). Screen Time is associated with Inattention Problems in Preschoolers. *PLoS ONE* 14(4). e0213995.

Viner & Stiglic (2018). Effect of Screen Time on the Health and Well-being of Chidren and Adolescents: A Systematic Review. *BMJ open* 2019, 9. e023191. doi:10.1136/bmjopen-2018-023191.

World Health Organization (2004). Promoting Mental Health. Retrieved from https://www.who.int.

World Health Organization (2020). Adolescents Mental Health. Retrieved from https://www.who.int

APPENDICES

APPENDIX I

FAROOK TRAINING COLLEGE, CALICUT

SCREEN TIME QUESTIONNAIRE-2021

Rishad Kolothumthodi
Assistant Professor

Aswani E.B.
M.Ed. Student

I am Aswani E.B., M. Ed. student of Farook Training College. Purpose of this survey is to collect data regarding my study relationship between Screen Time and Metal Health. I assure you that information provided by you will be only used for my research work.

Aswani E.B.

1. How Many hours do you spend in front of screen in a day?
2. Restrictions from my parents on screen time makes me upset.
3. How many hours do you spend time in front of smart phone for your educational purpose?
4. How soon after wake up from sleep do you interact with an electronic device?
5. I feel addict with excess use of social media.
6. How many hours do you spend on social media for entertainment?
7. While spending excessive time in front of screen do you feel any health issues?
8. Do you have a habit of spending time in front of smartphone or any other electronic devices while you are in bathroom, Kitchen, prayer room etc?
9. How many hours do you spend time in front of screen before sleep?
10. While studying, do you feel tendency to use social media for entertainment?

11. How many hours do you spend on watching TV per day?
12. I think excessive use of screen time on electronic devices may badly affect interest on studies?
13. Screen time may cause mental or health issues when you are addicted to social media.
14. Higher screen time may help to accomplish academic activity effectively.
15. How many hours do you spend in front of screen for communication?
16. Excessive use of social media can enhance knowledge.
17. How many hours do you spend in front of screen for gaming purpose?
18. How many electronic devices are shared your screen time in a day?
19. How many hours do you spend in front of computers?
20. How often do you use Smartphone/i pad/tablet..etc per week ?
21. How many hours do you spend by using smart phone, i pad, tablet... etc?
22. Do you feel stressed when you forget your phone somewhere?
23. Most of the times Students are spending screen time for entertainment?
24. Do you have any screen free day?
25. Do you have the habit of spending time on screen while you are in classroom?
26. Are you aware that screen time should be controlled?
27. Do you have the habit of slipping to sleep by playing games or any other entertainment with mobile phone?
28. Spending more time with screen in darkness may seriously affect your eyes.
29. Whenever I feel I am addicted to any screen, I can control the time spend on it.
30. Spending time with screen is my favourite activity?

31. Excess screen time has negative impact on an individual's behaviour development.
32. Higher screen time will adversely affect your interpersonal skills.
33. I am sure that I am spending time only for my educational purpose.
34. How many hours in a day you are spending time in front of the screen for educational purpose?
35. I don't think that higher screen time will not enhance critical thinking.
36. I am interested to spend time on screen than spending with friends.
37. Spending more time on watching videos, movies, short films... etc gives mental pleasure for me.
38. I feel higher screen time reduces the interest in studies.
39. Though the excessive use of mobile phone affects my social skills, the pleasure from it inspires me to use it more.

APPENDIX II

FAROOK TRAINING COLLEGE, CALICUT

MENTAL HEALTH SCALE-2015

Dr. Afeef Tharavattath
Assistant Professor

Shimna
M.Ed. Student

ഞാൻ അശ്വനി. ഇ. ബി., ഫാറൂഖ് ട്രെയിനിംഗ് കോളേജിലെ അവസാന വർഷ M.Ed. വിദ്യാർഥിനിയാണ്. നിങ്ങളുടെ മാനസികാരോഗ്യവുമായി ബന്ധപ്പെട്ട ചില പ്രസ്താവനകൾ ആണ് താഴെ കൊടുത്തിരിക്കുന്നത്. ഓരോ പ്രസ്താവനയും ശ്രദ്ധാപൂർവ്വം വായിച്ച ശേഷം അവ നിങ്ങളുടെ ജീവിതവുമായി എത്രമാത്രം ബന്ധപ്പെട്ടിരിക്കുന്നു എന്ന് തീരുമാനിക്കുക. 1 മുതൽ 45 വരെയുള്ള ഓരോ പ്രസ്താവനയ്ക്കും 5 പ്രതികരണം വീതാമാണ് നൽകിയിരിക്കുന്നത്. നിങ്ങളുടെ പ്രതികരണം എല്ലായിപ്പോഴും ആണ് എങ്കിൽ 1ന് താഴെയും, മിക്കപ്പോഴും ആണ് എങ്കിൽ 2ന് താഴെയും, ചിലപ്പോൾ ആണ് എങ്കിൽ 3ന് താഴെയും, അപൂർവ്വമായി ആണ് എങ്കിൽ 4ന് താഴെയും, ഒരിക്കലുമില്ല എന്ന് ആണ് എങ്കിൽ 5ന് താഴെയും അടയാളപ്പെടുത്തുക. നിങ്ങളുടെ പ്രതികരണങ്ങൾ ഗവേഷണത്തിനു മാത്രമേ ഉപയോഗിക്കുകയുള്ളൂ എന്ന് ഉറപ്പ് നൽകുന്നു.

അശ്വനി ഇ.ബി.

1. പാഠഭാഗങ്ങൾ അന്നന്ന് തന്നെ വായിച്ച് തീർക്കാൻ ശ്രമിക്കാറുണ്ട്.
2. പരീക്ഷാ സമയങ്ങളിൽ അമിതമായി ഉത്കണ്ഠ തോന്നാറുണ്ട്.
3. പെട്ടെന്ന് ദേഷ്യം പിടിക്കാറുണ്ട്.
4. ഒരു കാര്യത്തെപ്പറ്റിയും അമിതമായി ചിന്തിച്ച് ഉത്കണ്ഠപ്പെടാറില്ല.
5. ചില സമയങ്ങളിൽ സ്വയം നിയന്ത്രിക്കാൻ പറ്റാത്തതു പോലെ തോന്നാറുണ്ട്.
6. ഏതു കാര്യവും ക്ഷമയോടെ ഇരുന്ന് കേൾക്കാറുണ്ട്.
7. അദ്ധ്യാപകരോട് സംശയം ചോദിക്കാൻ മടി തോന്നാറുണ്ട്.

8. അഭിപ്രായങ്ങൾ പെട്ടെന്ന് പ്രകടിപ്പിക്കാൻ സാധിക്കാറില്ല.
9. അപരിചിതരുമായി ഇടപെടുമ്പോൾ പരിഭ്രമം തോന്നാറുണ്ട്.
10. പഠനോപകരണങ്ങൾ ഷെയർ ചെയ്യുന്നതിനു വിമുഖത കാണിക്കാറുണ്ട്.
11. വില കൂടിയ സാധങ്ങൾ സ്വന്തമായി വേണമെന്ന് എപ്പോഴും ആഗ്രഹിക്കാറുണ്ട്.
12. വീട്ടിൽ നിന്ന് ആവശ്യത്തിനു മാത്രമേ പണം ആവശ്യപ്പെടാറുള്ളു.
13. ദീർഘനേരം കാത്തിരിക്കുമ്പോൾ എന്റെ ക്ഷമ നശിക്കാറുണ്ട്.
14. എല്ലാവരും വ്യത്യസ്ത സ്വഭാവത്തിനുടമകൾ ആണ് എന്ന് മനസിലാക്കാൻ സാധിക്കാറുണ്ട്.
15. കൂടുതൽ സമയം വീട്ടിൽ ചിലവഴിക്കുന്നതിനോട് താൽപര്യം തോന്നാറില്ല.
16. ഞാൻ സത്യസന്ധത പുലർത്താറുണ്ട്.
17. എന്റെ കാഴ്ചപ്പാടുകൾ തെറ്റാണെന്ന് തോന്നാറുണ്ട്.
18. കിട്ടുന്നത് കൊണ്ട് തൃപ്തിപ്പെടാൻ ശ്രമിക്കാറുണ്ട്.
19. മുതിർന്നവരെ ബഹുമാനിക്കാറുണ്ട്.
20. സഹപാഠികൾ എന്നോട് കൂട്ടുകൂടുവാൻ താല്പര്യപ്പെടാറില്ല.
21. വ്യക്തമായി തെളിവുണ്ടെങ്കിൽ മാത്രമേ സ്വന്തം വിശ്വാസം മാറ്റാറുള്ളു.
22. പെട്ടെന്ന് സങ്കടം വരുന്ന പ്രകൃതമാണെന്നെനിക്ക് തോന്നാറുണ്ട്.
23. മറ്റുള്ളവരെ വിഷമിപ്പിക്കുന്ന രീതിയിൽ സംസാരിക്കാറില്ല.
24. ഒരിക്കൽ ചെയ്ത തെറ്റിനെക്കുറിച്ചോർത്ത് ആകുലപ്പെടാറുണ്ട്.
25. എനിക്കുള്ളത് എനിക്ക് തന്നെ കിട്ടുമെന്നൊരു വിശ്വാസമുണ്ട്.
26. എല്ലാവരോടും സന്തോഷത്തോടു കൂടി പെരുമാറാൻ ശ്രമിക്കാറുണ്ട്.
27. ആരോടും കൂടുതൽ നേരം ദേഷ്യപ്പെടാറില്ല.

28. എല്ലാവർക്കും എന്നോട് വെറുപ്പാണെന്ന് തോന്നാറുണ്ട്.
29. എന്റെ കാര്യങ്ങൾ ആരും ശ്രദ്ധിക്കാറില്ലെന്ന് തോന്നാറുണ്ട്.
30. എന്റെ എല്ലാ പ്രവർത്തനങ്ങളും വിമർശിക്കപ്പെട്ടതായി തോന്നാറുണ്ട്.
31. ഭാവി ജീവിതത്തെക്കുറിച്ച് ആശങ്ക തോന്നാറുണ്ട്.
32. സ്റ്റേജിൽ സംസാരിക്കുമ്പോൾ പരിഭ്രമം തോന്നാറുണ്ട്.
33. മറ്റുള്ളവരുമായി സംസാരിക്കുമ്പോൾ മുഖത്ത് നോക്കാറില്ല.
34. എൽപ്പിക്കപ്പെട്ട ചുമതലകൾ കൃത്യമായി നിർവഹിക്കാറുണ്ട്.
35. എന്റെ പ്രശ്നങ്ങൾ ഞാൻ തന്നെ പരിഹരിക്കാൻ ശ്രമിക്കാറുണ്ട്.
36. ഉയർന്ന പദവിയിലുള്ളവരെ അഭിമുഖികരിക്കുമ്പോൾ ഭയം തോന്നാറുണ്ട്.
37. പല കാര്യങ്ങളും പിന്നെ ചെയ്യാമെന്ന് കരുതി മാറ്റിവെക്കാറുണ്ട്.
38. എനിക്ക് ചുറ്റുപാടിനെപ്പറ്റി അത്യാവശ്യം വിവരമൊക്കെയുണ്ടെന്ന് തോന്നാറുണ്ട്.
39. എടുത്ത തീരുമാനിത്തിൽ ഉറച്ചു നിൽക്കാൻ കഴിയാറുണ്ട്.
40. എന്റെ വാക്കുകൾ മറ്റുള്ളവർ മുഖവിലക്കെടുക്കാറുണ്ടെന്ന് തോന്നാറുണ്ട്.
41. സ്വയം തീരുമാനമെടുക്കാൻ കഴിവില്ലാത്തവനാണെന്ന് തോന്നാറുണ്ട്.
42. ശ്രദ്ധക്കുറവ് ഒരു പ്രശ്നമായി തോന്നാറുണ്ട്.
43. അകാരണമായി സ്വയം ചിന്തിച്ച് സങ്കടപ്പെടാറുണ്ട്.
44. മറ്റുള്ളവർ എന്നെ പരിഗണിക്കാറുണ്ടെന്ന് തോന്നാറുണ്ട്.
45. എന്റെ ന്യൂനതകൾ എന്തൊക്കെയാണെന്ന് സ്വയം ചിന്തിച്ചു നോക്കാറുണ്ട്.

APPENDIX III

LIST OF COLLEGES

Number	Name of colleges
1	Govt. College of Teacher Education
2	Institute of Advanced studies in Education
3	Farook Training College
4	NSS Training College Ottappalam
5	University Teacher Education Centre
6	Meppayur Salafi College
7	Sree Narayana College of Teacher Education
8	CICS College of Teacher Education
9	KMCT College of Teacher Education
10	MCT Training College
11	Jamia Nadwiyya T raining College
12	Devaki Amma College of Teacher Education
13	EMEA Training College
14	M.I Training College
15	Salafiya Training College
16	Mar Osthatheos Training College