

**The Relationship Between Religiosity and Social Media
Addiction Among Queens College Students, Addis Ababa**

Addis Ababa University

College of Education and Behavioral Studies school of

Psychology

**The Relationship Between Religiosity and Social Media
Addiction Among Queens College Students, Addis Ababa**

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University in Partial Fulfillment of the Requirements for the Degree of
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Declaration

I, Yonatan Tamiru declare that a thesis submitted with the title of “the relationship between religiosity and social media addiction among Queen's college students Addis Ababa” is an original work submitted for the fulfillment of a master's degree in social psychology from the school of psychology Addis Ababa university.

Submitted by Yonatan Tamiru.....sign.

Approved By Tamire Andualem (Ph.D.).....sign

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Acronyms and abbreviations

ANOVA: Analysis of variance

CSA: Central statistical agency

EDHS: Ethiopian demographic and health survey

IAL: Internet addiction level

IAT: Internet addiction test

RS: Religiosity score

SPSS: Statistical package for social sciences

SMAS: Social media addiction score

WHO: World Health Organization

Abstract

This is a quantitative study performed to see The relationship between religiosity and social media addiction among queens college students. The study was performed in Addis Ababa, Queens college's three randomly selected campuses. The sample size for the study was 382 students and 22 samples were excluded due to the error which occurs during the data collection process and finally, 360 samples were used as sources of data. The study used two standardized questionnaires to assess social media addiction level and strength of religiosity. Kimberly Yong's global addiction test questionnaire and Santa Clara's strength of faith questionnaire were used to assessing social media addiction level and the strength of religiosity respectively after a pilot test was conducted on 45 randomly selected students from Queen's College to check its reliability. The study reveals there is no statistically significant difference in social media addiction levels between males and females. On religiosity score, female participants register higher results than males, and individuals' level of religiosity is negatively related to their level of social media addiction.

CHAPTER ONE

Introduction

1.1 Background of the study

1.1.1 Social media addiction

Social Media Addiction

Social media addiction is becoming a global concern following the rapid growth and transformation of the internet and other related technological advancements. Different studies performed in different parts of the world are showing this condition as a worldwide concern for all, developed and developing countries. In developed countries, social media addiction is now one of the great public health concerns (Cheng et al., 2021). In Great Britain, the rate of social media addiction among young persons was around 18 % and in China, the addiction rate goes to 24 % (Simsek et al., 2019).

In Africa, even though the social media usage level is much lower than the developed countries due to multiple infrastructural and economic reasons, studies indicate that social media addiction needs serious attention. In his study performed on Nigerian college students, Folaranmi indicates that 23% of Nigerian university students have either moderate or severe levels of Facebook addiction (Folaranmi, 2013). Similarly, 45% of Ghanaian students have registered moderate to high levels of social media addiction (Otu, n.d.). This situation must be an alarm for Africa to work on it because most of its population is young and the future economic security is dependent on the wellbeing of this age group.

Few studies are performed in the Ethiopian context and show similar findings like Nigerian and Ghanaian students. Befikadu in his study performed on undergraduate students in Addis Ababa shows 39.7% of the students are either moderately or severely addicted to social media use(Beyene, 2018). Another study conducted in Nekemite city also indicates the level of social media addiction is not something we can ignore in regional cities which has fewer infrastructural facilities compared with the capital city, Addis Ababa.

Religiosity

Religiosity is one of those fundamental concepts which is highly discussed in the day-to-day life of people globally and this happens because religion is vastly associated with the history and psychological making of human beings(Villani et al., 2019).

Religions affect politics, economy, social affairs, and other aspects of life and this brings significant development in multiple areas(Ugorie, 1970). Religions have the power to shape our ways of thinking, perception, and attitudes towards different things. Sometimes it is observed that people who are considered as more religious in a specific religion, their way of thinking and attitude toward their environment is directly linked to the teaching of their religion and how their religion shapes them to see the world around them(Armfield & Holbert, 2003).

Social media addiction and Religiosity

Social media addiction is found out to be related to multiple variables, like gender, psychological wellbeing, level of income of the user, religion, and many others(Almenayes, 2015). The relationship social media addiction has with these variables has different meanings and interpretations according to the variable.

Different studies are performed to see the relationship social media addiction has with religiosity. In a study performed in Kuwait social media addiction is found to be negatively related to religion in female respondents(Almenayes, 2015). Again, Armfield and Holbert's study shows the level of religiosity and internet use pattern are negatively related(Armfield & Holbert, 2003).

The relationship that exists between the social media addiction level and religiosity is yet to be studied in the Ethiopian context, even though both social media addiction level and the religious tendency of the society has been studied separately by different scholars at different time. CSA, 2007 shows that from the total population of Ethiopia more than 99% of the people consider themselves as religious, and as a country dominated by religious peoples, it is wise to consider this as adjustment for addiction, though this study only attempts to see the relation exist among the two variables. This study will see if there are positive, negative, or zero relationships exist between social media addiction and religiosity among students found in Addis Ababa Queens college.

1.2 Statement of the problem

Social media addiction is currently being responsible for different psychosocial problems on the users. This problem is not only an issue for the developed countries; it is also a big concern for developing countries(Folaranmi, 2013).

Religiosity is considered one of those factors that have a positive impact on human beings. Different studies reflect religiosity has a negative relationship with addiction, but there are only limited studies on whether religiosity relates to social media addiction or not(Almenayes, 2015). At the same time, Ethiopia is considered one of the most religious countries in the world(*EDHS2016*).

But despite the alarming increase in social media use and vulnerability of youths to social media addiction only limited research is performed on the area to check what variables are related to it to look for possible mediating factors in the future. So, in this study, the researcher will see what relationship exists between religiosity and social media addiction.

1.3 Research objectives

The overall objective of this study is to see the level of social media addiction among college students and whether religiosity has a relationship with students' level of social media addiction. Most specifically this study was conducted to

- To check the relationship between Religiosity and Social Media Addiction
- To see the levels of social media addiction among Queen's college students.
- To see if there is a difference between males and females on their level of religiosity.
- To check if there is a difference between males and females on their level of social media addiction.
- To check if there is any difference in social media addiction level based on students' internet access method.

1.4 Scope of the study

This study is conducted in Queen's college Addis Ababa to see the relationship between religiosity and social media addiction. The college has 10 branches in Addis Ababa and the data collection, and study is conducted on the randomly selected three colleges.

The study will focus on two major variables, religiosity, and social media addiction, and see their relationship. Other variables can affect both religiosity and social media addiction, but this study only covers the two.

1.5 Significance of the study

Many studies are performed to understand the causes, impacts, and solutions on chemical-based addictions like tobacco, heroin, cannabis, and alcohol addictions. On the other hand, despite the multifaceted effects and an alarming increase in the number of people being affected, few studies have been performed in process-related addictions like computer game addiction, gambling, and internet/social media addictions, especially in Ethiopia(Hussain & Arasad, 2013).

So even if it is limited in its scope this study will play its role in understanding the relationship that exists between religiosity and social media addiction, the social media addiction extent in the youth, and will be a base for further study to respond to the crisis that may follow social media addiction among youths. Now is the time to take it seriously before it is too late (Griffiths, 2000).

1.6. Limitation of the study

This study is conducted while the world is facing a crisis following the Covid-19 outbreak and due to the outbreak educational institutions were temporarily closed. This situation highly affects the sampling method because as per the decision of the schools it will take too long time to take all the students in the sampling frame because of the unavailability of all students.

1.7 Operational Definition

1. Religiosity: means the strength of a person's observance of his/her religion
2. Social media addiction: this means when a person's level of social media use exceeds the limit where it affects its normal day-to-day activity and is evaluated based on parameters because excessive social media use is not always addiction.

CHAPTER TWO

Literature review

2.1 Social media

Social media is defined in different ways by different scholars. Griffiths defined it as “virtual communities where users can create individual public profiles, interact with real-life friends, and meet other people based on shared interests”(Griffiths, 2000) and Boyd and Ellison's definition is “a public web-based service that permits users to create a personal profile, identify other users with whom they can relate to or have a connection with, read and react to posts made by other users on the site, and send and receive messages either privately or publicly”(Kuss & Griffiths, 2011).

Social media is one of those things that get great acceptance in the day-to-day activities of human beings in the contemporary world. This acceptance is getting an increase in the number of people who actively engage in these activities, and it is getting an increase in its varieties in which makes itself attractive for users. Global social media research summary 2020 declares active social media users' number is increased by 9% from last year and increase the number by 321 million new users to reach the total number of active users more than 3.8 billion. Different research has witnessed the rapid growth of social media usage. Social media gain great acceptance and are a part of our daily life experience (boyd & Ellison, 2007). This acceptance and level of usage of social media are different across different age category but one thing that all have in common is despite there is a difference in the level of acceptance in different age categories, the number of social media users are increasing in number in all age groups and economic and social status.

The ways of communication have dramatically changed to social media platforms within the past few years and peoples start to use these platforms as their primary means of communication(Otu, n.d.). This global phenomenon is also an issue for our country in which most people from different backgrounds are actively engaged in social media use(Alemayehu & Zerai, 2013).

2.2 Global patterns of social medias

Social media use is showing an alarming growth globally(Kuss & Griffiths, 2011). This rapid growth of social media usage on the global scale might be ascribed to different reasons but one thing all scholars agree in common is, the social media usage pattern is showing a rapid change in the last decade. According to the global social media summary, Facebook has currently 2.74 billion active users compared to 1.86 billion users which were 5 years ago, this shows the extent of social connectedness created using these social media platforms.

From January 2020 to January 2021 active social media users increase by 13.2% or 490 million active users. Again, in the last 5 years, the global social media users number grown from 2.31 billion to 4.2 billion

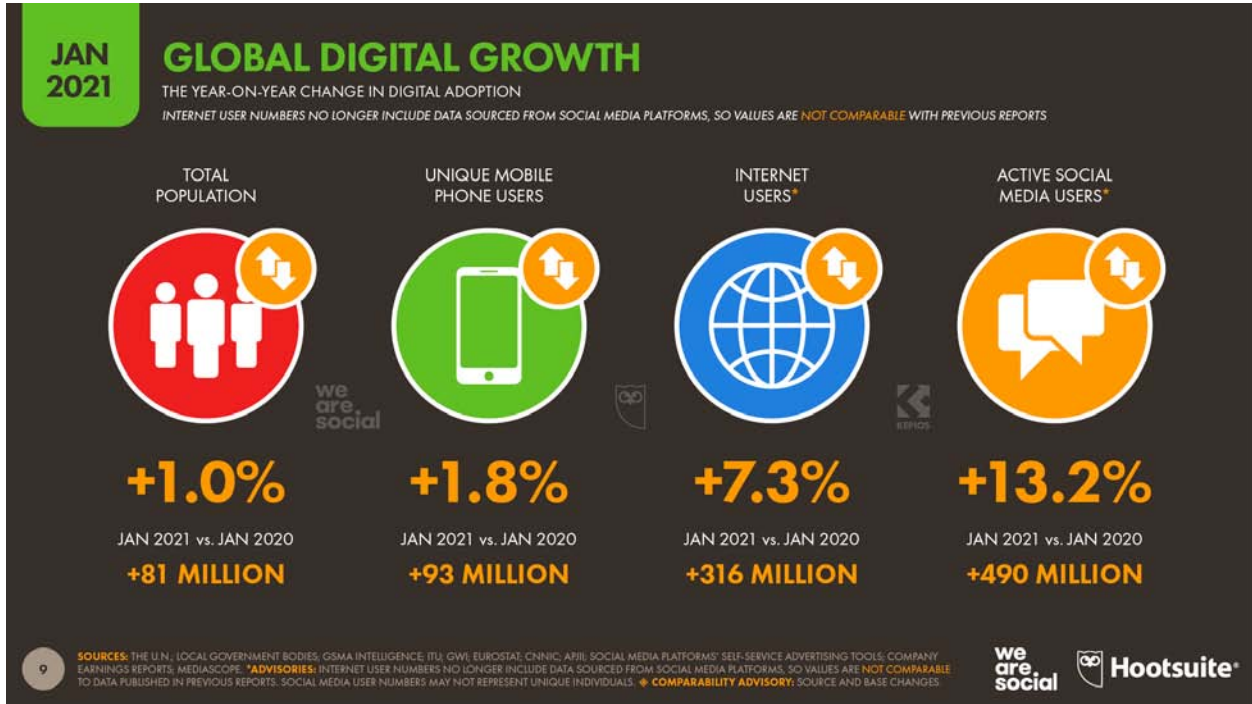


Figure 1: Global social media users’ growth on 2021, January. (source: <https://datareportal.com/reports/digital-2021-global-overview-report>)

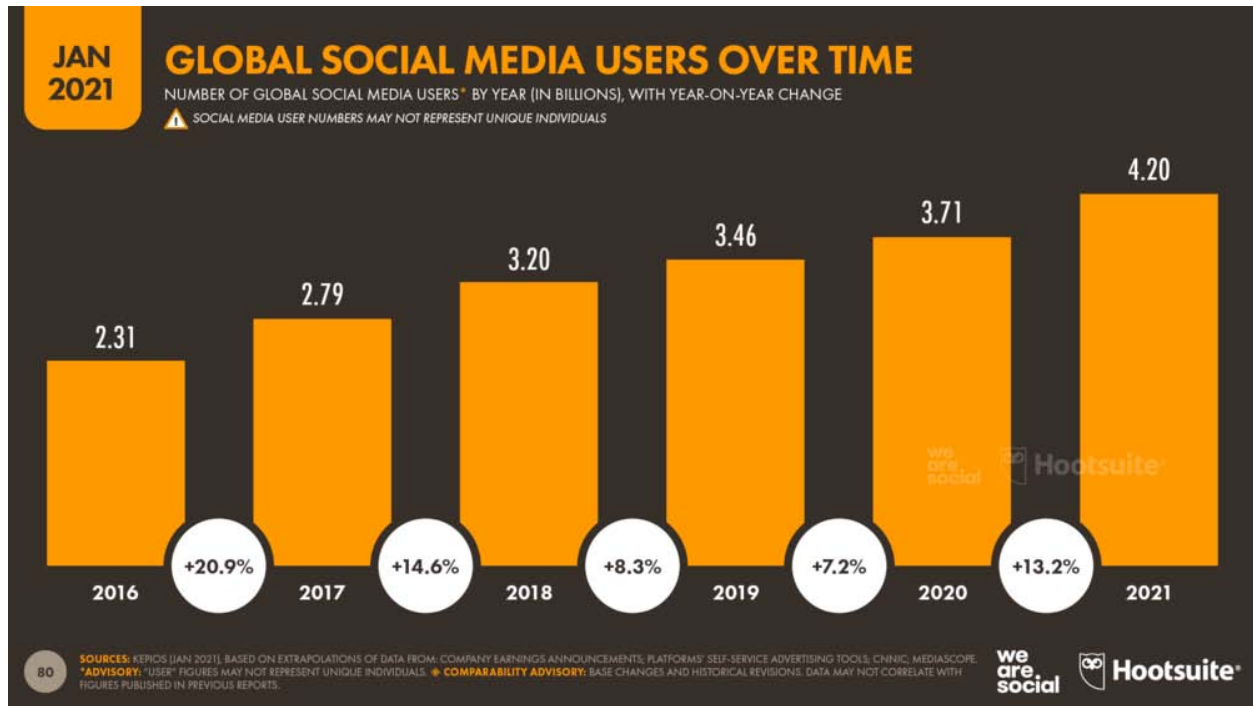


Figure 2: Number of global social media users by years, in billion. (source: <https://datareportal.com/reports/digital-2021-global-overview-report>)

This phenomenon of rapid growth in social media is not only the case of developed countries and studies show developing countries too are on this global pattern of rapid growth on social media use (Otu, n.d.). Ethiopia with recent developments on infrastructures of telecommunication has shown a great amount of growth in social media use (Alemayehu & Zerai, 2013). Global social media stats indicate the social media usage percentage in the past 1 year has shown 13 % (2.8 million) increment in Ethiopia (Beyene, n.d.).

2.3 Benefits of social media

Social Media have many benefits, one of the things that come to the mind of most of its users is it creates an excellent way of communication for the global community and enables its users to interact with different peoples. These days it is very hard to think of the world without this means of communication. Globalization is highly increasing people's movement across different countries and continents, so these social media platforms are helping people to get in touch with their family, loved ones, and friends (Bekalu et al., 2019). These communication platforms are also helping the world to perform different jobs without coming together physically.

Another use of social media is its contribution to the trading world by being an excellent platform for the market and it makes it easy to sell and buy using social media. Currently, it is very common to see trade exchanges and market advertisements using social media(boyd & Ellison, 2007). Considering the widespread use of these platforms and their availability, nowadays it is becoming a norm for most business companies to have a social media page for their advertisement and shopping.

There are also many more benefits of social media; it serves to spread political agendas, spiritual messages, an educational platform for learning institutions, and many others.

2.4 Disadvantages of social medias

Social media has also a negative impact on human life despite its multiple benefits and it is not commonly agreed whether its benefits outweigh or not. One of the negative consequences of social media use is it is high time consuming, and these are creating unnecessary negative impacts in the daily life of its users(Ekşi & Çiftçi, 2017).

It is also highly decreasing social interactions by giving a chance for people to interact using social media platforms and this replacement is affecting physical interactions among friends and even families. In families' children spends most of their time with social media rather than with their parents and they are getting less time to get advice and support from their parents. Parents are not guiding their children because of the little time they get a chance to spend with their children, so these days those children who are using social media are getting much information and support about life from social media platforms, not from their parents or guardians, these are making the children be exposed to different information, which is in appropriate for their age, culture, and understanding(Morrison & Gore, 2010). These inappropriate exposures to different information are creating many social, psychological, mental, and cultural problems.

Recently social media started to take the blame for different terror attacks that happen in different parts of the world and additionally these Media create a loose structure to control destructive messages which are being transmitted through social media and be a cause for violence in different places(Uzochukwu & Anierobi, 2021). Criminal videos have been live transmitted through Facebook

and millions have watched that and this is giving a way for violence. These media platforms are still having a limitation on controlling fake news transmitted through their platforms and because of this millions of people are being exposed to fake news and are living their life with the fear of terror(Kumar & Shah, 2018).

2.5 Social media addiction

Social media addiction is currently an alarming issue in the world. Addiction has social, emotional, biological, and other consequences on the users (Weil, 1984).

Social media addiction is considered when its excessive use starts to interfere and negatively affect the day-to-day life of the user, but this thing becomes beyond the control level of that user and his/her life started to be corrupted (Young & Rogers, 1998). These days people are spending more and more time on social media, according to Global social media research summary 2020 Social media users spend 2 hours and 24 minutes per day on average on 8 different social media sites.

Social media addiction has a positive correlation with different psychosocial disorders like low self-esteem, social anxiety, and depression (Selfhout et al., 2009). Some studies have undergone to check whether this problem is an issue for our country or not suggest that social media addiction is one of the upcoming public health concerns for our country.

Social media addiction level is studied in different countries. A study in Nigerian university students reveals 23.3 % of the study participant has either moderate or high level of Facebook addiction

(Folaranmi, 2013). A report in China shows from their youth population about 10 million are tested positive for social media addiction (Block, 2008). Likewise, a study in university students in Ghana assess social media addiction levels and from the respondent, 45% are reported to be moderate to high level addicted, and 36% are reported to spend more than 4 hours daily on social media (Otu, 2015). In Ethiopia studies on social media, addiction reveal that most youths in the study are in the category of “may be addicted” (Hussain & Arasad, 2013). In his study, Befekadu has shown us 39.7% of Saint Marry university students are either moderately or severely social media addicted. (Beyene, n.d.).

Peoples who are addicted to social media are likely to develop depression, low self-esteem, anxiety, and loneliness compared to those who are not addicted to social media (Morrison & Gore, 2010). Young explained that addiction is considered a clinical disorder that requires treatment(Young, 2004)

2.6 Religiosity

When we start to talk about religiosity, we must start to clarify the difference between religion and religiosity. The term religion simply shows one person’s religious sect like Muslim, orthodox Christian, catholic, protestant Christian, and many others. Religiosity on the other hand is the strength of a person’s observance of his/her religion(Charlton et al., 2013). Religiosity has different meanings and approaches across different countries, but the essence of the definition is close even though how people define and interpret it differs.

Most religions across the world have their teaching, rituals, and ceremony and they have different instructions that their followers must follow and adhere to. When we talk about religiosity, we are

talking about how people are attached and submit to their religion's rituals, ceremonies, and teachings. Different studies have put different dimensions for measuring religiosity. In our country religiosity in orthodox Christians can be categorized using two dimensions which are religious knowledge and religious practices (Siferaw, n.d.).

Religion plays a central role in our lives and people look for God when they are in trouble to get hope and a sense of control (Bradshaw et al., 2010). Religious rituals like prayer have a role in protecting individuals from different psychosocial problems (Maltby et al., 1999). Different studies explain religion's positive role in covering its followers from harmful experiences like smoking, promiscuous sexual behavior, and substance abuse (Chan et al., 2012)

Religiosities have different dimensions and different measures are used to see how a person is religious or not and in the Ethiopian Orthodox religion follower, religiosity is measured mainly in two dimensions which are the follower's religious knowledge and second religious practice commitment by its followers (Siferaw, n.d.).

2.7 Religiosity and social media addiction

Though limited studies have been performed, from the studies it is shown that like its relationship with other substance abuse and harmful behaviors, religion may have a relationship with internet addiction (Charlton & Danforth, 2010). Considering secularization theory Armfield and Holbert explained that religiosity should be negatively related to internet usage because most of the things that are

transmitted through the internet are secular things and rarely reflect religious views(Armfield & Holbert, 2003). At the same time study conducted in Kuwait with an attempt to examine the relationship between religiosity and social media addiction reveals from the addiction factors only "Social Consequences" and "Time Displacement" are significantly related to religiosity (Almenayes, 2015). Another study in Malaysia appears to show religious females are less likely to be addicted to the internet and religiosity plays a mediating role in them, but this result doesn't appear in their male counterparts (Charlton et al., 2013).

So, considering these findings and an increased social media addiction level in our country it is basic to see whether there is a relationship between religiosity and social media addiction, this result will put further insight on the battle to protect the young generation from unwanted consequences of social media addiction.

2.8 Theoretical framework

This study is based on 2 theories for explaining the result of the data analysis. Social media use and social media addiction have been related to many psychological outcomes and many psychological theories can be related to them. Religiosity is also one of those factors that have multiple effects and outcomes on the psychology of individuals and the community, and these impacts are subject to many psychological theories. In this study we examine addiction related to social media use with religiosity as a mediating factor and from that, we based on secularization theory and Moral development theory.

The moral development theory of Kohlberg is used to discuss the relationship between religiosity and social media addiction because as it is discussed in the literature section of these study when an individual is addicted it will affect the judgmental ability of that individual and on the other hand when the person becomes competent morally and emotionally it will help him of guarding himself/herself against addictive behaviors. Religion is one of those factors which affects the moral development of individuals and from these points this study expects religiosity to show a protective role on social media addiction.

Secularization theory's proposal of the world to become more non-religious as the digital world grows is the other suggesting theory for the current high growth of social media addiction in different parts of the world.

2.8.1 Kohlberg's theory of moral development

The concept of morality and moral development are entertained by different scholars and different views have been forwarded towards these issues. A lot has been said on where the source of morality is and what it requires to be moral.

In our society addiction has been commonly related to the issues of morality and it is perceived that morally sane peoples are less likely to be an addict.

Lawrence Kohlberg, an American psychologist has a theory on moral development, and he classifies his ideas in different stages(Yilmaz et al., 2019). For his theory, Kohlberg raises the famous concept of the "Heinz dilemma" to assess his respondents' perception of the concept of morality. On the Heinz dilemma, Heinz wants to buy a drug from the pharmacy for his critically ill wife, but the pharmacist sells the drug 10 times more than the actual price of the drug in which Heinz couldn't afford, so Heinz asked him to pay half the price or to pay in the extended period but the drug store owner refuses, so what Heinz decided finally was to break the store and steal the drugs. Kohlberg asks his participant whether Heinz was right on doing that or not?

Stages of moral development

Level 1. Preconventional morality

This is the earliest stage of moral development which stays up to 9 years of age and decisions are based on expectation and consequences. It has 2 main stages, stage 1: Obedience and Punishment: people at this stage see rules as fixed and absolute. Stage 2. Individualism and Exchange: on this stage children account for individual points of view and judge actions based on how they serve individual needs.

Level 2. Conventional morality

At this stage, morality is developed based on the acceptance of social rules for what is good and moral. This is the stage to entertain the moral standards they receive from the society and elders and acceptance of authority and conform to the group norm. It has 2 stages. Stage 3 Developing Good Interpersonal Relationships: This stage is referred to as "good boy-good girl" orientation and the focus is living up to social expectations and roles and Stage 4 Maintaining Social Order: The main object of this stage is maintaining social order by following rules, doing one's duty, and respecting authority.

Level 3. Postconventional morality

On this level, people start to develop an understanding of abstract principles of morality. It has 2 stages, stage 5 Social Contract and Individual Rights: Here the ideas of the social contract and individual rights are entertained, and rules of law are perceived to be important for maintaining the

society but require members of the society to agree on the standards and stage 6 universal Principles: this final stage is based on universal ethical principles and abstract reasoning. People prefer to follow internalized principles of justice even if they conflict with laws and rules.

The researcher believed Religiosity plays a great role, especially on the conventional and post-conventional levels of moral development as rules, abstract principles, and societal values play great roles on those levels. Moral development and socially unwanted behaviors are perceived to negatively correlate to each other (Naz & Sharma, n.d.).

2.8.2 Secularization theory

After Max Weber introduced the concept of Secularization in 1930, it has become a widely known concept even if there is no clear definition for it. The concept of this theory discusses religion as something traditional and through a time when the world is becoming more secular and when more technologies are introduced to the world the idea of religion will fall (Swatos & Christiano, 1999).

Following the industrialization of Europe Weber noticed people asking old beliefs again and develop the habit of questioning and analyzing things from the modern point of view. Weber in his sociological work of “the spirit of capitalism” not only expresses his points about the old oral mystery religion but also, he was analyzing the relationship between the rapidly changing world due to industrialization and the widely accepted religions of the time. Secularization, for weber, is both the process and the output of these struggles. Though this concept of secularization is related to Max

weber's work, he did not mention the word secularization frequently in his book and even he might not expect the word to be one of the critical words on the study of religion.

The global pattern is rapidly changing in terms of technology and the modern way of living. The people's level of understanding and the reasoning inclination is growing at a great level, so based on this theory and considering the role of social media playing on the rapid change of the world into globalization and modernization the researcher of this study expects the negative relationship between social media use and religiosity.

CHAPTER THREE

Research methods

3.1. Study area

This study is conducted in Addis Ababa, Ethiopia. The study was carried out in Queen's College, one of the privately-owned higher education institutes in Ethiopia that has many campuses. The college has 10 branches in Addis Ababa and trains from Diploma level to MA level. This study mainly uses an undergraduate study program. There is no specific reason for including only undergraduate programs in the study.

3.2. Research design

This research uses a correlational descriptive research design to address the questions raised by the researcher. Correlational descriptive research design is one of the research designs mainly used to see the correlation between variables. The output we get from the correlational study might be positive, negative, or zero correlation. A positive correlation between variables means, the variables go in the same direction, and when one increases the other also increases and vice versa. A negative correlation on the other hand means when one variable increases the other decrease and vice versa. Zero correlation shows, the two variables have no relation at all. The result of the correlation ranges from -1

to +1. Correlational result closer to one means the variables have a strong positive relation and a correlational result closer to -1 means the variables have a strong negative correlation.

3.3. Sampling and sample size

3.3.1. Sampling

The data collection for this study is conducted at a time where the world was facing a difficult situation due to the COVID-19 pandemic that happened across the globe. This global pandemic affects the data collection process because it limits the availability of respondents in the study area. Schools were temporarily closed, and it delays the data collection process and after the schools are re-opened it still makes the data collection difficult because it was impossible to get students from a different department at a single period. Queens college invited graduating class students to return to school first then after their graduation, the next batch joins, and in a different phase, the school is re-opened.

For this study 2 sampling method was implemented along the process, first, the random sampling method was used to select three campuses from the 10 campuses of Queen's college that resides in Addis Ababa, because of time and resource it was not feasible to collect data from each campus. After the three campuses are selected through the random sampling method, the availability sampling method was used to select the required respondents for the study from the three campuses. The availability Sampling method was used because of the situation that followed the COVID-19 pandemic. The Pandemic makes it difficult to use other sampling methods due to the movement and many other restrictions that come with it.

3.3.2. Sample size

For this study, the researcher uses Cochran (Cochran, 1977) formula to calculate a representative sample from any given population. So, based on this formula 382 sample size is determined for the study.

After these sample sizes are driven using Cochran's formula the researcher divides into a proportional sample for each campus according to the number of students they have.

Queens college Yohannis campus has 400 undergraduate students, Ayertena Campus has 310 undergraduate students, and the Mexico campus has 300 undergraduate students. Therefore, based on the number of students they have Yohannis Campus takes 39.6 percent of the samples, Ayertena Campus takes 30.6 percent of the sample and Mexico Campus takes 29.8 percent of the respondents. This means 151 samples from Yohannis Campus, 117 samples from Ayertena Campus, and 114 samples from the Mexico campus.

The biggest challenge on the sampling process comes here after this sample size determination was completed. The data was collected during the national covid lockdown season and it was not possible to develop a sampling frame and find equal representatives from different batches, different

departments, and different sex. So, the researcher followed the availability sampling method because of the high uncertainty for the campuses to resume their normal activity.

3.4. Questionnaire design

The questionnaire used for this study has 3 parts. The first part of the questionnaire is demographic questions which help to understand the respondent's background and some other additional personal questions which help to answer the final research questions. The second part of the questionnaire is Kimberly young's Internet Addiction Test adapted into social media addiction test, and it is used to assess the level of social media addiction level of the respondents. The questionnaire was primarily developed to assess internet addiction but for the sake of this study, it is translated as it can be applied for assessing social media addiction levels(Young, 2004).

The translation process has passed all the necessary steps to be qualified for the study, it is translated by 3 different persons, first by the researcher of this study and one other person into Amharic and then by a language professional into English, it is cross-checked to come up with the final output. The third part of the questionnaire is Santa Clara's strength of religiosity faith questionnaire. The same process of translation that was applied for the second part of the questionnaire is also applied here and the final version of the Amharic version of the questionnaire is made ready for the pilot study.

3.5 Data Collection procedure

Data collection was carried out by the researcher and two assistant data collectors. The researcher first brief the aim of the study and the detailed questions that the questionnaire consists of for the data collectors before the actual data collection date. This is carried out because the data collectors might need to explain anything unclear to the respondents of the data.

The data was collected by three persons including the researcher and takes 1 month and 4 days for the data collection, from November 4, 2020, to December 10, 2020.

The data collection is performed on different days on each campus based on the availability of the students. On the actual data collection dates, the researcher along with the assistant data collectors respond to any questions raised by the respondents on the questionnaire.

3.6 Data Analysis

After data collection was performed by the data collectors and the researcher the data analysis was carried out using SPSS version 25. Then the researcher based on the research objectives interprets the findings of the analysis.

3.7. Pilot test & reliability of the data collection tool

3.7.1. Pilot test

This pilot test is conducted to check the feasibility of the final research and to check the reliability of the questionnaires used for the study. For this purpose, this study is conducted on 45 randomly selected students and the result then is analyzed for understanding the reliability of the questioners used and again based on the research questions the data taken from the pilot test were analyzed using SPSS 25 versions.

After the pilot test was conducted the researcher has made minor changes to the questionnaire and additional corrections on the variables assessed based on the feedback from the pilot test respondents and the analysis of the pretest sample data.

3.7.2. Reliability and validity of the data collection tool

After administering the final questionnaire of the study for the pilot test samples and correcting the necessary languages of the Amharic version of the questionnaire, a reliability test was performed both for Kimberly young's IAT and Santa Clara's strength of religiosity faith questionnaire. According to the reliability analysis as shown in the table below, consisting of all the 20 questions the Cronbach

alpha of 0.864 was registered which makes the questionnaire reliable for the study because it is above the standard value, suggested by (Nunnally, 1978) of 0.70. It means that the instrument is reliable and can be used to assess the social media addiction level of students.

	Cronbach's Alpha	No of Items
Pilot test	.857	20
Final Data of 360 samples	.881	20

Table 1: Reliability of Kimberly young's internet addiction test questionnaire

Next, the same process had taken place to assess the reliability of Santa Clara's strength of religiosity's faith questionnaire and based on the output shown in the table below Cronbach alpha of 0.88 was registered which makes the questionnaire reliable to assess religiosity's strength of students.

Both Kimberly Young's Social media addiction test and Santa Clara's strength of religiosity faith questionnaire have undergone multiple tests through different scholars and have proven validity.

	Cronbach's Alpha	No of Items
Pilot test	.888	10
Final Data of 360 samples	.890	10

Table 2: Reliability of Santa Clara's strength of faith questionnaire

The validity test for Kimberly Young's internet addiction test is performed in different studies and it is found that the questionnaire is valid to assess the internet addiction score or social media addiction score after it is contextualized to the study area (Keser et al., 2013).

For Santa Clara's strength of religiosity faith, questionnaire different validity tests are performed and appeared to be valid in assessing respondents' strength of religiosity (Plante & Boccaccini, 1997).

3.8 Ethical considerations

Throughout the research process, especially during the data collection time, the ethical aspect of the research gets due attention to make both the process and the result of the study acceptable. During the data collection process to keep the ethicality of the study respondents were well informed about the purpose and process of the study and were given the right to withdraw from taking part in the study at any given time.

The study used Santa Clara's strength of religiosity faith questionnaire and as religion is one of the core parts of human life, the researcher takes enough time to brief the respondents on the need of addressing their religious background and experience on social media for the study and clear out any ambiguity on that.

CHAPTER FOUR

Results

This is a quantitative study performed to see the relationship between religiosity and college students' level of social media addiction. As discussed in the previous section which describes the sampling, the data collection process was difficult and has been forced to take many days due to the covid-19 pandemic. For this data analysis, the researcher used SPSS version 25.

The data analyzed by SPSS is presented using tables, graphs, and written explanations. The researcher tries to put the data in a simple graph to decrease the repetition of data and to make the research clearer and more readable.

4.1 Demographic and background characteristics of the respondents.

4.1.1 Demographic characteristics

In Figure 3 the age distribution of the respondents is shown, and the mean age of the respondents is 21.7 and the maximum age is 32 and the minimum age is 19 which makes the range to be 13. As we can see from the table and figure 3, 62.2% of the respondents' age are 21 and 22, and 87.8% of the respondent's age lies between the age of 20 and 23.

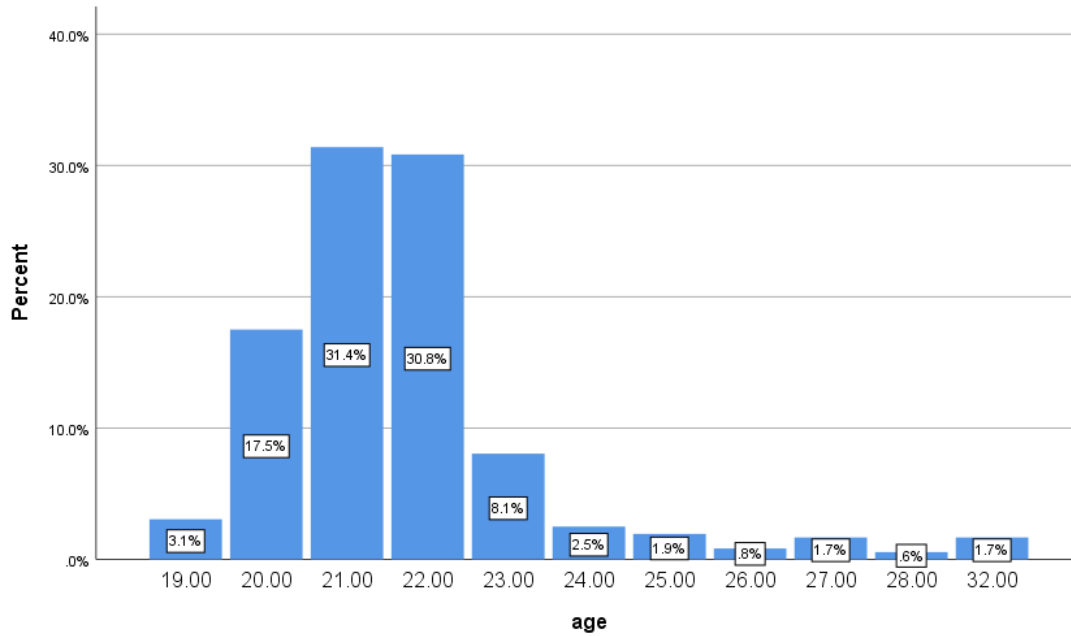


Figure 3: Chart showing the age distribution of respondents with percent.

Again, Figure 4 shows the sex distribution of the respondents. 58.1 % of the respondents are male and 41.9 % of the respondents are female.

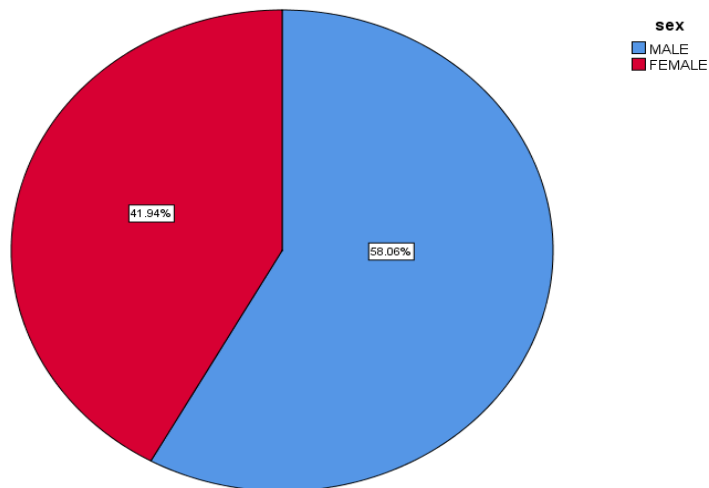


Figure 4: Chart showing the age distribution of respondents.

The data collection method used the availability sampling method in its second phase after three colleges are selected randomly. The availability sampling method makes it difficult for the researcher to prepare a sampling frame from each department and include it in the sampling. Even if the researcher uses availability sampling on the questionnaire it was tried to identify the batch of the respondents to know the distribution based on the batch of the respondents. Of the respondents, 76.7% are third-year students and 22.5 % of the respondents are second-year students and 0.8 % of the respondents are 4th year graduating class students. These significant differences in batch distribution happened because the colleges were giving lectures for their students on separate and unique schedules considering the covid-19 prevention protocol that was working in the country.

The religious distribution of the respondents is shown in Figure 5. Of the total respondents, 63.9 % are Orthodox Christians, 21.7 % protestant, 10.6 % are Muslims, and Catholics, Adventists, and other religions are 3.9 % of the total respondents.

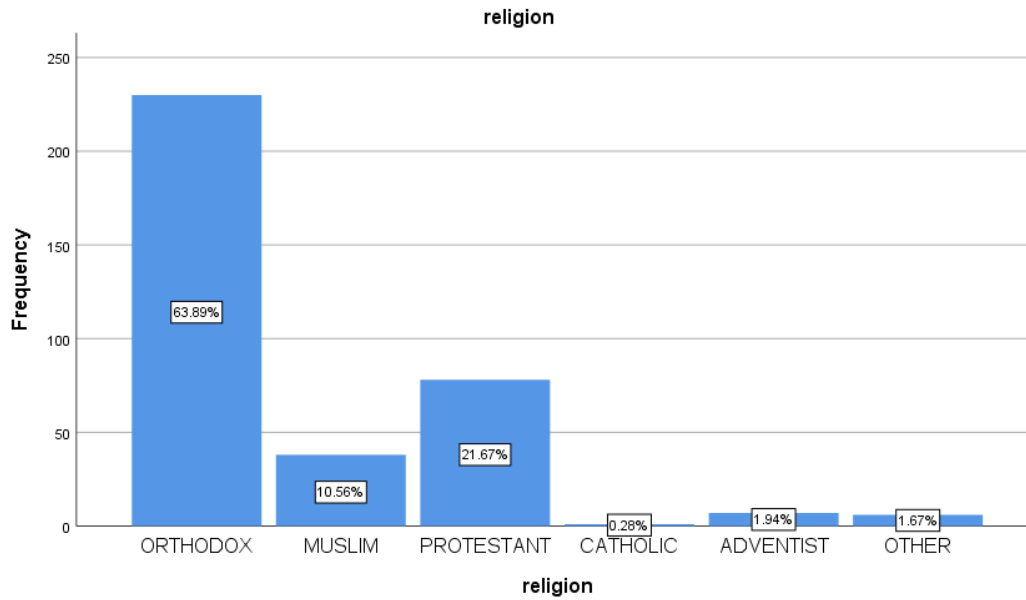


Figure 5: Religious distribution of the respondents

The Internet access distribution is also evaluated and as it is shown in table 2 51.9 % of the respondents use mobile data as a common way for them to access the internet and 46.9 % uses Wi-Fi as their common way of internet access.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MOBILE DATA	187	51.9	51.9	51.9
	INTERNET CAFÉ	1	.3	.3	52.2
	WIFI	169	46.9	46.9	99.2
	CDMA	3	.8	.8	100.0
	Total	360	100.0	100.0	

Table 3: Common internet access method of the respondents

4.2 Religiosity and social media addiction score

4.2.1 Religiosity score

The result of Santa Clara's strength of religiosity faith questionnaire distributed to the students is shown in table 4. The mean religiosity faith score is 33.9. The maximum and the minimum religiosity score are 40 and 10 respectively.

Mean	33.92
Median	36.00
Mode	40.00
Std. Deviation	5.74
Variance	32.98
Range	30.00
Minimum	10.00
Maximum	40.00

Table 4: Religiosity strength of faith score of the respondents.

4.2.2 Social media addiction score

The study uses Kimberly Young's social media Addiction assessment questionnaire, and the output of the respondents is shown in table 3. The mean Addiction score of the respondents is 40.29. The maximum and minimum addiction score registered from the respondents are 100 and 9, respectively.

Mean	40.29
Median	39.00
Mode	39.00
Std. Deviation	17.01
Variance	289.29
Range	91.00
Minimum	9.00
Maximum	100.00

Table 5: Social media addiction score distribution of respondents

4.2.3 Gender difference in social media addiction score

An independent samples t-test was conducted to compare the social media addiction test result for the Male and Female respondents. There was not a significant differences in terms of sex which is Male ($M=38.8421$, $SD=15.63769$) and Female ($M=42.2980$, $SD=18.60888$) sex, $t(358)= -1.909$, $p=.064$.

		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Total Social Media Addiction score	Equal variances assumed	-1.909	358	.057	-3.45591	1.80992	-7.01533	.10351

Table 6: Independent sample t-test between sex and social media addiction test score

4.2.4 Gender difference in religiosity score

An independent samples t-test was conducted to compare the religiosity score for the Male and Female respondents. There were significant differences in the scores for Male ($M=32.5742$, $SD = 5.92384$) was lower than females ($M= 35.7815$, $SD = 4.92462$). The magnitude of the difference in the means $t(358) = -5.433$, $p = .000$. Hence Female respondents have a greater Religiosity score than Male respondents.

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
TotalRS	Equal variances assumed	-5.433	358	.000	-3.20729	.59033	-4.36825	-2.04634

Table 7: Independent sample t-test between sex and religiosity score

4.3 Internet addiction level

Below table 7 shows the internet addiction level of the respondents classified based on Kimberly Young’s internet addiction test and the result shows 39.4 % of the respondents are classified as having mild addiction and 27.5 % of the respondents having moderate addiction. 32.2 % of the respondents have no addiction based on the assessment and only 0.8 % of the respondents considered as having severe social media addiction.

	Frequency	Percent	Cumulative Percent
No Addiction	116	32.2	32.2
mild addiction	142	39.4	71.7
Moderate Addiction	99	27.5	99.2
Severe Addiction	3	.8	100.0
Total	360	100.0	

Table 8: Table showing frequency for social media addiction level of respondents

4.4 Correlation between religiosity and internet addiction score

To assess the correlation between social media addiction score and religiosity strength of faith questionnaire Pearson product of correlation was conducted. According to the result, the Pearson product correlation between the score of students in social media addiction and religiosity strength of faith was found to be statistically significant ($r = -.191$, $p < .000$). The direction of the correlation as found in the below table is negative, which means when the students' religiosity score increase the social media addiction score decrease and vice versa.

		Total SM AS	Total RS
Total SM AS	Pearson Correlation	1	-.191**
	Sig. (2-tailed)		.000
	N	360	360
Total RS	Pearson Correlation	-.191**	1
	Sig. (2-tailed)	.000	
	N	360	360

** . Correlation is significant at the 0.01 level (2-tailed).

Table 9: Correlation between social media addiction test score and religiosity strength score.

4.5 Internet access and social media addiction test result.

Of the total respondent, 51.9% of them are using mobile data with a mean of 40.68 and a standard deviation of 19.11. The next highest method of internet access is Wi-Fi and 46.9 % of respondents use it as a main source of the internet with a mean of 39.7 and standard deviation of 14.57. The least recorded way of internet access by the respondents is internet café and from 360 respondents only 1 respondent says internet café is my primary access for internet usage.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
MOBILE DATA	187	40.6845	19.11009	1.39747	37.9276	43.4414
INTERNET CAFE	1	44.0000
WIFI	169	39.7160	14.57623	1.12125	37.5024	41.9295
CDMA	3	47.0000	.00000	.00000	47.0000	47.0000
Total	360	40.2917	17.00847	.89642	38.5288	42.0546

Table 10: Descriptive statistics for the internet access ways of respondents

As shown below in the table one way ANOVA test is run to check whether there is a significant difference in social media addiction test result in terms of the respondent's access to the internet and the result suggests social media addiction test score does not significantly differ based on ways of access of the internet, $F(3,356)=.268, p=.849$.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	233.623	3	77.874	.268	.849
Within Groups	103620.752	356	291.070		
Total	103854.375	359			

Table 11: ANOVA of internet access and social media addiction test score

CHAPTER FIVE

Discussion

5.1 On what levels do social media addiction exist among college students?

One of the aims of this study was to contribute to these few studies and to give the issue proper emphasis and the result of this study shows that from the 360 total respondents of this study 39.4 % are leveled as having mild addiction, followed by 32.2 % no addiction and 27.5 % moderate addiction. From the study, only 0.8 % of the respondents are classified as having severe addiction to social media usage.

The global pattern of social media use is changing rapidly due to several factors mentioned in previous chapters, but these patterns of social media users are not well studied in our country, both in terms of its advantages and drawbacks, including the level of users who can be classified as a social media addict whether in mild, moderate, or severe level.

A study conducted at Nekemte City, West Ethiopia using a mixed approach on 264 samples explains even if it is very difficult to determine addiction prevalence with precision their study shows most of the respondents fall on the category of ‘may be addicted’ followed by ‘most likely not to be addicted’ (Hussain & Arasad, 2013).

These results have a similarity with the findings of a previous study conducted by Befikadu at relatively similar respondents, undergraduate college students who live in Addis Ababa, but with relation to Severe addiction, this study shows much less percentage than that study. Both studies use Kimberly Young's test for internet addiction to assess social media addiction level by customizing it to fit to assess social media addiction level of respondents but show a significant difference on severely addicted respondents. The reason for this is not clear and it shows these topics are worth detail several studies.

In studies performed in Nigeria and Ghana similar findings have been shown, in Nigeria a study performed on University undergraduate students 21.7% of the respondents have been classified as having moderate addiction, and only 1.6 % of the respondents are severely addicted to social media (Folaranmi, 2013), while on a study conducted in the University of Ghana, 80 % of the respondents are either moderately or mildly addicted to social media, only 1 % of the respondent of the study is categorized as having severe addiction for social media usage.

These patterns of social media addiction will have a different color on developed countries with good infrastructure and easy access internet. According to Block JJ, the social media addiction level in South Korea is considering internet addiction as one of the most serious public health issues and 1.2 million youths are at risk of developing internet addiction which demands hospitalization(Block, 2008).

One of the reasons for this level of difference in social media addiction between developed countries like South Korea and developing countries like Nigeria and Ethiopia may be the cost of the internet and the infrastructure levels and accessibility of the internet for the users.

5.2 Do social media addiction test scores differ between males and females?

The result of this study shows there is no significant relationship between social media addiction scores and the gender of the respondents.

This same finding is revealed in Befekadu Beyene's study conducted on Saint Mary University, but on a study conducted on UK-based social networking sites it is shown Sex play a statistically significant role in the respondents' social media addiction score and it shows Men have greater addictive tendencies than Females (Morrison & Gore, 2010). Similarly, Ikenna Adiele and Wole Olatokun describe in their study, males have a greater score of internet addiction than females, and this might be due to several reasons, one reason they mention is males adopt technology faster than females, but other reasons are also ascribed to this result(Adiele & Olatokun, 2014).

As mentioned in the previous paragraph finding of this study shows no significant relation of sex with social media addiction score and it is supported by another study performed on a similar setting. Different reasons might account for this finding, though it is difficult to express the exact reason behind this. The researcher of this study mentions a similar way of living for males and females who attend college in Addis Ababa as one reason for this finding. Even though the researcher believes that there are some differences concerning gender roles in Addis Ababa, that doesn't account to have a significant difference in social media usage for college students in major cities like Addis Ababa.

5.3 Does religiosity strength score differ between males and females?

This study reveals sex is a significant factor in determining the respondent's religiosity score, and from the test performed we can see those female respondents score more on religiosity than the male respondents. Hence, females are more religious than males.

Religiosity strength is the other variable that is entertained in this study. In this section, the researcher checks whether sex difference has a significant change in the religiosity strength score. On the other hand, this will inform us whether male or female respondents are more religious, based on studies performed?

The topic of religiosity is not well studied in Ethiopia and difficult to see whether sex difference influences the score of religiosities. But there are different studies performed to see the relationship between gender and religiosity of individuals. D. Paul Sullins, on his studies on gender and religion and his reviews of literature of studies performed on the relationship between gender and religious strength suggest that women are more religious than males and claims that as a universal case based on his review(Sullins, 2006).

5.4 Is there is any difference in social media addiction level based on students' internet access methods?

The other factor that is perceived to affect the respondent's social media addiction level is the method for the respondents to access the internet to use these social media platforms. Because the internet is not equally accessible to every citizen in our country and there is a significant difference in the price for accessing the internet through different ways it is considered worth checking its relationship with the respondent's social media addiction level.

In this research four, commonly used method of accessing the internet is evaluated to see their relationship with the social media addiction level of the respondents. These four internet access ways evaluated in this study are mobile data, internet cafe (a shop where individuals get internet service by paying in minutes of use), wi-fi, and CDMA. As mentioned in the result section 51.9 % of the respondents use mobile data as a common way for them to access the internet and 46.9 % uses Wi-Fi as their common way of internet access.

The result of the study implies there is no significant relationship between internet access of the respondents with their score of social media addiction test, which means internet access ways have less predictive power for social media addiction score.

The reason for this result might be as shown in the result section more than 98 % of the respondents use either mobile data or wi-fi as their common way of access for internet access and these data will make it difficult to compare the other methods of internet access on their predictive power of social media addiction, but these needs further evaluation.

5.5 Does the strength of religiosity relate to social media addiction level?

This study tries to see whether the individuals' level of strength of religiosity is related to the individuals' level of social media addiction. The strong religious inclination of individuals is considered to have a protective role on many chemicals based and process-based addiction, but it is not well studied its effect with social media addiction, especially in Ethiopia, where the country is believed to have 98% of the population who consider themselves as religious (EDHS 2016).

In this study, the researcher examines the relationship of the individual's strength of religiosity with the social media addiction level of that individual through a correlational study and it is found that the individual's level of religiosity is negatively correlated with their level of social media addiction score.

Social media addiction is perceived to be related to different variables. Different studies were performed to see what factors affect the risk of individuals being engaged in this process-based addiction (Ekşi & Çiftçi, 2017). Age, psychosocial problems, level of income, gender are related to social media addiction level either positively or negatively (Almenayes, 2015).

This study made its ground on two theories mentioned earlier, Kohlberg's theory of moral development and Secularization theory. Kohlberg on his conventional stages of moral development associates the acceptance of social rules for what is good and moral. As religion is one of those factors which plays a big role in developing social rules the negative correlation between the strength of religiosity and social media addiction found in this study is braced. Secularization theory as well postulates globalization and technological advancement to affect individuals' religiosity negatively and this will make people more prone to technology-based addiction when they have low religiosity tendency as of this study.

Even though the correlation result shown in the final study reveals there is a negative correlation between the strength of religiosity and an individual's social media addiction score, there is a difference in the correlation result between the pilot test and the final study. These might be due to the sampling techniques difference used on the two data collection times, the pilot test was performed before the COVID-19 pandemic travel restriction and the researcher used random sampling technique on that and helps to get representative samples for the pilot test, but the finals study uses availability sampling technique because the pandemic makes it difficult to use other methods and these might affect the quality of the final data.

In their correlational study performed on 389 samples, Greg G. Armfield and R. Lance Holbert found that the level of religiosities of individuals is negatively related to their internet use pattern(Armfield & Holbert, 2003). Again, this same output is revealed on a literature review performed to see internet addiction, personality, religiosity, and youth adjustment and on this review being more religious is

playing a protective role against internet addiction, but the finding mainly reports this negative correlation is shown on girls, not boys.

In a study performed on Kuwait College students, from the addiction factors only "Social Consequences" and "Time Displacement", not "Compulsive feelings". are significantly related to religiosity (Almenayes, 2015) and Halil Ekşil performed a correlational study on 389 samples to predict high school student's problematic internet use in terms of religious belief and moral maturity, moral maturity is found to be more significant in predicting problematic internet use than religiosity(Ekşi & Çiftçi, 2017).

From the result of this study, we can see that religion is playing a protective role to the individuals for not being engaged in social media addiction. As religiosity plays a protective role from other chemical-based addictions and as it is supported by different global studies performed to see whether the strength of religiosity is a factor for social media addiction score or abnormal internet use, this study too indicated the positive role religion and religiosity can play in protecting individuals from social media addiction.

CHAPTER SIX

Summary, Conclusions, and Recommendations

This Study deals with two major variables, social media addiction score using Kimberly Young's global addiction test and Religiosity using the Santa Clara's Strength of religiosity faith questionnaire and the researcher examines what other variables interact with these major variables.

In this chapter the researcher will summarize the aim of the research, the variables analyzed, the finding of the analysis, and the discussion section. After the summary, the researcher will put a conclusion for his correlational study on the role of religiosity on social media addiction and will put the recommendation finally.

6.1 Summary

This is a quantitative correlational study that aims to assess the role of religiosity on the individual's level of social media addiction. Social media use is currently growing rapidly in every corner of the world and due to this the world is forced to face both the good and unwanted impacts of social media, and at the same time Ethiopia is passing through multifaceted problems and social media are playing their role on escalating different problems throughout the country. This study focused on one effect of excessive social media, social media addiction, and its relationship with religiosity.

Religiosity is the other concept entertained in this study. Religion played a critical role in keeping the equilibrium of society. From the benefits of religion, one is its role in protecting individuals from different chemical and process-based addiction, but this and the other benefits of religion and religiosity is not well studied, especially in Ethiopia. So, this research aims to contribute its role in understanding the benefits of religiosity by checking its relationship with social media addiction.

The study samples were college students from Queens College and the sample was collected from 3 different campuses by going all the necessary steps for that as discussed in chapter three. The researcher used a quantitative correlational study method to achieve its objective.

For the study, the researcher used 2 standardized questionnaires to assess the level of social media addiction and religiosity. Kimberly Young's global addiction test for the internet was adapted and some change has been made to make it fit to assess social media addiction. On the other hand, to

assess individuals' level of strength of religiosity, Santa Clara's strength of faith questionnaire was employed, and an additional questionnaire section assesses the demographic status of the respondents.

For analyzing the data, the researcher uses SPSS version 25. Descriptive analysis, Pearson correlation analysis, independent t-test analysis, and ANOVA was used for dealing with each question on the study.

The major findings of the study are listed below

- ✓ From the total 360 samples taken from 3 different colleges, 39.4 % are leveled as having mild addiction, followed by 32.2 % no addiction and 27.5 % moderate addiction. From the study, only 0.8 % of the respondents are classified as having severe addiction for social media usage and we can generalize this finding to work for the whole 10 campuses of Queen's college because these 3 colleges are taken on randomly from the lists of the college.
- ✓ The result of this study shows there is no significant relationship between social media addiction score and gender.
- ✓ Sex is a significant factor in determining the respondent's religiosity score, and from the test performed it is shown that female respondents score more on religiosity than the male respondents.
- ✓ There is no significant relationship between internet access of the respondents with their score on the social media addiction test.
- ✓ The individual's level of religiosity is negatively correlated with their level of social media addiction score.

6.2 Conclusions

From this study, we can see a statistically significant relationship between religiosity and social media addiction.

Based on the findings of these study we can conclude that religiosity has a negative relationship with students' social media addiction scores, and there is no difference in the social media addiction level based on the student's access to the internet.

Based on gender differences we can conclude that females are more religious than males. The social media addiction level has no significant difference between females and males in this study. Finally

from this study, we can conclude that social media addiction needs appropriate attention because of its growing effect.

6.3 Recommendations

Ethiopia is thought to be one of the countries with the dominant population considered as religious and with this significant number of religious populations, religion can play a critical role in positively building the society. Despite the large number of populations who are considered religious in Ethiopia there is still little research performed which will help the society use its resource for good of the country.

Social media addiction, according to the output of these and other similar research, is not significant in Ethiopia, but we can see that the number of respondents who has mild to moderate level of social media addiction is significant. This result indicates there is a great need to work on these areas to keep the community, especially the uses from the upcoming public health concern.

The researcher forwards recommendations based on the findings of this research and from the works of literature reviewed for this study to the relevant stakeholders on the concepts entertained by this study.

I. Recommendation for the government

- ✓ Government has limited health facilities and professionals who can deal with social media addiction, so before social media addiction is becoming a public health concern for Ethiopia, all government institutions, Ministry of Health, Ministry of Women, Youth and Children, Ministry of Education, and other governmental institutions like telecom must work on preventing this challenge of the future generation.
- ✓ Government must start to utilize all the resources the country has to deal with the problems the country is facing and by doing that religion and religious institutions must get enough emphasis on playing a role in building the society along with the government bodies.
- ✓ The right government bodies and universities should engage in frequent and high-level studies on social media use, its psychosocial consequences, and other related issues to help develop policies and rules towards this direction.
- ✓ Governmental universities must work on understanding the role religion can play in a country's development and wellbeing.

II. Recommendation for religious institutions

- ✓ Religious institutions must start playing a major role in building their members on becoming competent in using their teachings to be protected from activities that will harm themselves and the community.

- ✓ Religious leaders should understand the impact of religiosity and the benefits of being religious on the individual's level of competency in their different activities and they must work on boosting this power on their members.

- ✓ The religious institution should start playing big roles in addressing the community's public health concerns using their positive influences and must start to work with all the relevant stakeholders on doing that.

III. Recommendations for parents and guardians of children

- ✓ Families, especially parents and legal guardians should understand the effects of excessive social media use. Currently, social media addiction awareness is not as wide as the other chemical-based addictions so parents and legal guardians should know these issues well to protect their children from these upcoming public health concerns.

- ✓ Parents should take all the necessary precautionary measures whenever they allow their children to access the internet, especially home wi-fi services not to trap these children with addiction at an early age.

- ✓ Families must understand the role religion can play in building psychosocial and emotional competence and its use as an emotional adjustment.

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Appendix 1: Background information of the respondents

1. Age _____

2. Sex

1 Male 2 Female

3. Batch

1 First 2 Second 3 Third 4 Fourth

3. Religion

1 Orthodox 2 Muslim 3 Protestant 4 Catholic 5 Adventist 6 Others

4. Way of internet access for social media use

1. Mobile Data 2. Internet Cafe 3. WiFi 4. CDMA

Internet addiction test by Kimberly Young

This questionnaire consists of 20 statements. After reading each statement carefully, based upon the 5-point Likert scale, please select the response (0, 1, 2, 3, 4, or 5) which best describes you. If two choices seem to apply equally well, circle the choice that best represents how you are most of the time during the past month. Be sure to read all the statements carefully before making your choice. The statements refer to offline situations or actions unless otherwise specified.

0 = Not Applicable

1 = Rarely

2 = Occasionally

3 = Frequently

4 = Often

5 = Always

1. ___ How often do you find that you stay online longer than you intended?

2. ___How often do you neglect household chores to spend more time online?
3. ___How often do you prefer the excitement of the Internet to intimacy with your partner?
4. ___How often do you form new relationships with fellow online users?
5. ___How often do others in your life complain to you about the amount of time you spend online?
6. ___How often do your grades or schoolwork suffer because of the amount of time you spend online?
7. ___How often do you check your email before something else that you need to do?
8. ___How often does your job performance or productivity suffer because of the Internet?
9. ___How often do you become defensive or secretive when anyone asks you what you do online?
10. ___How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?
11. _____How often do you find yourself anticipating when you will go online again?
12. _____How often do you fear that life without the Internet would be boring, empty, and joyless?
13. _____How often do you snap, yell, or act annoyed if someone bothers you while you are online?
14. _____How often do you lose sleep due to being online?
15. _____ How often do you feel preoccupied with the Internet when off-line, or fantasize about being online?
16. _____How often do you find yourself saying "just a few more minutes" when online?
17. _____How often do you try to cut down the amount of time you spend online and fail?
18. _____How often do you try to hide how long you've been online?

19. _____ How often do you choose to spend more time online over going out with others?

20. _____ How often do you feel depressed, moody, or nervous when you are off-line, which goes away once you are back online?

The Santa Clara Strength of religious faith questionnaire

Please answer the following questions about religious faith using the scale below. Indicate the level of agreement (or disagreement) for each statement.

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

_____ 1. My religious faith is extremely important to me.

_____ 2. I pray daily.

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___7. 00 000 00 0000 0000 0000000 000 000000 000 000 0000 00000000?

___8. 0000000 000 0000000 0000000 00000 00 000 00000000?

___9. 000000 000 00000000 00 00 000000000 00000 00 000 0000000 00 000000
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___10. 0000000 000 00 0000000 00000 000 0000000 000000 00 000000 000 000000000
00000 00000 00 000 00000 0000000 00000000? (You block them)

___11. 00000000 000 0000000000 00000 000000000 00 00 000 00000 000000?

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Advisor. Dr. Tamire A.

Pilot Test

This pilot test is conducted to check the feasibility of the final research and to check the reliability of the questionnaires used for the study. For this purpose, this study is conducted on 45 students and the result then is analyzed for understanding the reliability of the questioners used and again based on the research questions the data taken from the pilot test were analyzed using SPSS 25 versions.

Reliability and validity of the questionnaires

This study uses mainly two standardized questionnaires which have undergone different validity tests under different studies and both Kimberly young's Internet Addiction test and Santa Clara's strength of religiosity faith questionnaire, so this validity test is mentioned in the final study and this pilot test has undergone a reliability analysis for both questionnaires.

Reliability analysis of the questionnaire

The questionnaire used for this study has 3 parts. The first part of the questionnaire is demographic questions which help to understand the respondent's background and some other additional personal questions which help to answer the final research questions. The second part of the questionnaire is Kimberly young's Internet Addiction Test and it is used to assess the level of social media addiction level of the respondents. The questionnaire was primarily developed to assess internet addiction but for the sake of this study, it is translated as it can be applied for assessing social media addiction levels. This translation process has passed all the necessary steps

to be qualified for the study, it is translated by 3 different persons first by the researcher of this study and one other person into Amharic and then by a language professional into English, gets cross-checked to come up with the final output. The third part of the questionnaire is Santa Clara's strength of religiosity faith questionnaire. The same process of translation that was applied for the second part of the questionnaire is also applied here and the final version of the Amharic version of the questionnaire is made ready for the pilot study.

Reliability of Kimberly young's IAT

After administering the final questionnaire of the study for the pilot test samples and correcting the necessary languages of the Amharic version of the questionnaire, a reliability test was performed both for Kimberly young's IAT and Santa Clara's strength of religiosity faith questionnaire. According to the reliability analysis as shown in the table below, consisting of all the 20 questions the Cronbach alpha of 0.864 was registered which makes the questionnaire reliable for the study because it is above the standard value, suggested by (Nummally, 1978), of 0.70. It means that the instrument is reliable and can be used to assess Ethiopian students.

Reliability Statistics

	Cronbach's Alpha Based on	
Cronbach's Alpha	Standardized	
	Items	N of Items
.857	.864	20

Next, the same process had taken place to assess the reliability of Santa Clara's strength of religiosity's faith questionnaire, and based on the output shown in the table below Cronbach alpha of 0.88 was registered which makes the questionnaire reliable to assess religiosity's strength of Ethiopian students.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.888	.894	10

Analysis of the result of the pilot sample

After analyzing the reliability of the questionnaires used for the study and after getting them reliable the researcher then analyzes the sample based on the research questions of the final study. 45 sample students were taken for the pilot test and their frequency was based on sex, religion, internet access.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	45	19.00	26.00	21.4889	1.29021
Valid N (listwise)	45				

Frequency Table

The pilot sample has 48.9 % of the respondent are male and 51.1% are female as shown in the frequency table below

Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	22	48.9	48.9	48.9
	Female	23	51.1	51.1	100.0
	Total	45	100.0	100.0	

The study attempts to try to know what their internet access is and to know this again the frequency table below shows us among the respondent 60 % uses mobile data as their internet access.

IA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mobile Data	27	60.0	60.0	60.0
	Wifi	18	40.0	40.0	100.0
	Total	45	100.0	100.0	

The pilot study performed On 45 sample students have religion distribution of 51 % orthodox, 35.6 % protestant and 13.3 % Muslim.

Religion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Orthodox	23	51.1	51.1	51.1

Muslim	6	13.3	13.3	64.4
Protestant	16	35.6	35.6	100.0
Total	45	100.0	100.0	

Based on the sample taken from the pilot test the following research questions have been analyzed.

Research questions

This study will try to answer the following questions.

- 1) At what levels does social media addiction exist among college students?
- 2) Does social media addiction level differ in sex?
- 3) Are females being more religious than a male?
- 4) Does the score of religiosities play a mediating role in social media addiction level?

1. At what levels does social media addiction exist among college students

As the table of frequency shown below exhibits, the study reveals that 46.7% of the students have been classified as having a mild level of addiction and 13.3 percent of the students are having 13.3 percent of addiction.

IAL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Addiction	18	40.0	40.0	40.0
	Mild Addiction	21	46.7	46.7	86.7
	Moderate Addiction	6	13.3	13.3	100.0
	Total	45	100.0	100.0	

2. Does the score of religiosities play a role in social media addiction level score?

As different works of the literature reveal that religiosity has a protective role for many addictive behaviors because of the different psychological effects religion has on a person's behavior and much research has been performed to check whether religion has a positive or protective role on chemical-related addiction. This study is attempting to check the role of religiosity on process-related addiction specifically social media addiction. Religion plays a significant role in the building of moral development through its effect on human psychology.

This study performs a Pearson correlation analysis on whether religiosity and social media addiction correlate or not and if it has a correlation in what direction is the correlation goes?

So as shown on the correlation matrix there is a significant negative relationship between social media addiction score and religiosity score, $r(43) = -.556, p=.000$

Correlations

		IAS	RS
IAS	Pearson Correlation	1	-.556**
	Sig. (2-tailed)		.000
	N	45	45
RS	Pearson Correlation	-.556**	1
	Sig. (2-tailed)	.000	
	N	45	45

** . Correlation is significant at the 0.01 level (2-tailed).

3. Does social media addiction level differ in sex?

An independent sample t-test is performed to check whether sex difference has a role in social media addiction level score and the result shows us there is no significant relationship between sex and social media addiction scores.

Group Statistics

	Sex	N	Mean	Std. Deviation	Std. Error Mean
IAS	Male	22	35.7273	10.62872	2.26605
	Female	23	34.8261	12.87581	2.68479

Independent Samples Test

t-test for Equality of Means

				95% Confidence Interval of the Difference	
				Std. Error Difference	Lower
Sig. (2-tailed)		Mean Difference			
IAS	Equal variances assumed	.800	.90119	3.52844	-6.21460
	Equal variances not assumed	.799	.90119	3.51327	-6.18830

4. Are females being more religious than a male?

Again, an independent sample t-test is performed to check whether sex difference has a role in Religiosity score and the result shows us there is no significant relationship between sex and Religiosity score.

Group Statistics

	Sex	N	Mean	Std. Deviation	Std. Error Mean
RS	Male	22	34.4545	4.82777	1.02928
	Female	23	33.2609	4.15842	.86709

Independent Samples Test t-test for Equality of Means

				Std. Error Difference	95% Confidence Interval of the Difference Lower
Sig. (2-tailed)			Mean Difference		
RS	Equal variances assumed	.378	1.19368	1.34131	-1.51133
	Equal variances not assumed	.380	1.19368	1.34584	-1.52339

5. Does internet access way matter on Internet addiction score?

To examine whether internet access ways play a role in internet addiction score, the researcher performs independent sample t-test analysis, and the output again reveals there is no significant difference in internet addiction score based on internet access ways.

Group Statistics

IA		N	Mean	Std. Deviation	Std. Error Mean
IAS	Mobile Data	27	32.9259	13.40472	2.57974
	Wifi	18	38.7778	7.62006	1.79607

Independent Samples Test t-test for Equality of Means

			95% Confidence Interval of the Difference		
Sig. (2-tailed)			Mean Difference	Std. Error Difference	Lower
IAS	Equal variances assumed	.101	-5.85185	3.49078	-12.89168
	Equal variances not assumed	.070	-5.85185	3.14339	-12.19475

Summary of Finding

The pilot test was performed on 45 students to check the reliability of the questionnaire used for this study and to analyze the result of the sample based on the study's research question.

The reliability analysis performed on the pilot test shows that both Kimberly young's Internet addiction score and Santa Clara's strength of religiosity faith questionnaire are reliable to use for the study.

The study shows that among the pilot samples 46.7 % of the respondents are classified as having mild internet addiction and 13.3 % of the respondent has classified as moderately addicted.

The next thing performed is analyzing the sample result on the research question and the results reveal that social media addiction score and religiosity score are negatively related, which means when the score for religiosity increase the score for social media addiction will decrease and this finding support the idea that religiosity has a positive protective role on both chemical addiction and process addiction based on religiosity's effect on the moral development through the psychological influence of religion, religiosity has a positive effect on psychological wellbeing (Maltby, 1999).

The next analysis was focused on whether sex has a relationship with social media score and religiosity score and the result shows that both social media addiction score and religiosity score have no significant difference based on sex. Additionally, the study examines whether internet access ways have a difference on social media addiction score and the result again reveals there is

no significant difference in social media addiction score based on internet access ways.

Conclusion

Social media has plenty of positive impacts, but it has also its unwanted consequences and among these unwanted consequences social media addiction is one and this study shows that the pilot study participants 60 % are either on a mild or moderate level of addiction so this reminds us that the issue needs serious attention.

Religion also is one of those major issues that have a positive role on human psychology and based on this, this study examines whether it plays a good protective role on social media addiction by making a correlation test and the result tells us that social media addiction score and religiosity score are negatively correlated and this leads us to consider religiosity as one of protective factor from social media addiction.

Recommendation

Internet addiction is becoming a widespread phenomenon in today's world, and it has been confirmed that many users are now developing psychological problems due to this addiction (Griff, 2000), so Ethiopian youths are not shielded from this upcoming public health concern.

This study only tries to check whether internet addiction as a part of process addiction has any relationship with religiosity and to check if religiosity plays a protective role on this addiction, but this is a limited and not an in-depth study on the issue and future research must focus on this matter to see any adjustment ways for this the seems inevitable upcoming challenge of the coming generation.