



## Research article

# Social media use, effects, and parental mediation among school adolescents in a developing country

Lidiya Dereje Mekonen<sup>a</sup>, Diribe Mekonene Kumsa<sup>a</sup>, A. Adamu Amanu<sup>a,b,\*</sup>

<sup>a</sup> Department of Sociology, Jimma University, Jimma, Oromia, Ethiopia

<sup>b</sup> Health, Behavior, And Society Department, Jimma University, Jimma, Oromia, Ethiopia

## ARTICLE INFO

## Keywords:

Adolescent  
Developing country  
Ethiopia  
Parental mediation  
Social media

## ABSTRACT

Social media use among adolescents is becoming increasingly common worldwide. While social media use has many benefits for everyone, it can also pose risks especially for adolescents, depending on how and why they use it. Therefore, it is an important research and public agenda, especially in developing countries like Ethiopia where there is an increasingly growing social media use among adolescents in these days. This study aimed to assess social media use, effects, and parental mediation among school adolescents in Ethiopia. The study employed concurrent triangulation cross-sectional study design. Simple random sampling and purposive sampling were used to select 227 participants, including adolescents and parents. Descriptive statistics were used to present, analyze, and interpret the quantitative data using SPSS software version 20.0. Thematic analysis was used to analyze the qualitative data. The findings were then triangulated. The study found that the majority (86.3%) of the respondents were widely using various social media platforms for different purposes. Both adolescents and parents reported that adolescents were experiencing both positive and negative effects from social media use, including academic, mental, social, and health related aspects. However, adolescents emphasized the positive effects, while parents stressed the negative effects more. The study also found that many parents were supportive of their children's social media use for educational purposes, but most do not have control over or do not supervise their children's social media usage. The study recommends that the government, schools, parents, and other concerned bodies work together to improve understanding of and promote safe social media usage among adolescents.

## 1. Introduction

Social Media (SM) refers to an integration of websites and apps that enable users to create, share contents, and participate in social networking [1]. In these days, the use of SM has increased rapidly worldwide, affecting people of all ages [2,3]. Accordingly, trends in SM use among adolescents are also growing rapidly across the world [4–6]. Adolescents use various types of SM platforms, with the most popular being YouTube, Facebook, Telegram, Instagram, and Snapchat [4,6].

SM has many benefits for its users, especially adolescents. Scholars reported that adolescents use SM to communicate with their friends, parents, other desired individuals and groups, and their school environment, and adolescents who use SM have better friendships than those who do not [7–9]. Adolescents with social anxiety disorder often use SM to communicate and express their ideas

\* Corresponding author. Department of Sociology, Jimma University, Jimma, Oromia, Ethiopia.

E-mail address: [adamuamanu1000@gmail.com](mailto:adamuamanu1000@gmail.com) (A. Adamu Amanu).

freely, and SM often provides adolescents with fun and enjoyment, including for schoolwork [9–12].

However, SM use also comes with its risks, especially for adolescents. Some scholars argue that the disadvantages far outweigh the advantages [13–16]. For example, adolescent SM users often experience sleep deprivation, neglect other commitments at home and school, and ignore face-to-face interaction with people due to addiction to SM; they may also compare themselves to idealized versions of others they see on SM, and engage in offline expressions of online behaviors, such as sexual experimentation [5,17–19].

As primary agent of socialization, parents are the primary facilitators, teachers, and gatekeepers of children's SM usage [20,21]. The role of the parents has become even more important compared to the role of the government (regulating SM) and schools (providing media literacy), as SM have been used often in personalized settings by younger groups [20–22]. The extent to which children adopt the behaviors presented in SM depends to some extent on their parents' activities, which affect how they access, process, and use information [20,23,24]. The process of using strategies to supervise and control adolescent children's SM usage is called parental mediation [20,25]. In developing countries like Ethiopia, where SM use is increasingly becoming common among younger age groups [26–28], parental mediation is essential to minimize the harmful effects of SM use among children and adolescents.

Recently, SM related research is increasing in Ethiopia [10,27,29,30]. However, the issue, especially parental mediation of adolescent SM use is still not adequately researched. Therefore, this study aimed to assess SM use, effects, and parental mediation among adolescents in secondary school in Jimma city, Oromia, Ethiopia.

Research questions.

In line with its main aim, this study aimed to address the following research questions.

- ✓ To what extent do adolescents use social media?
- ✓ What types of social media platforms do adolescents use?
- ✓ For what purposes do adolescents use social media?
- ✓ What are the effects of social media use on adolescents?
- ✓ What parental mediation strategies do parents use to manage their children's social media usage?

## 2. Methodology

### 2.1. Study design and method

This study employed an institution-based cross-sectional study design. The study used mixed methods, namely, concurrent triangulation design with the intent of obtaining a more complete understanding of the issue [31]. Almost all of the research questions were addressed quantitatively and qualitatively, except for the question on the effects of SM use among adolescents, which was addressed qualitatively. The quantitative study used a pretested, pen-and paper-based, self-administered survey questionnaire to collect data. The questionnaire included questions on respondents' socio-demographic characteristics, extent of SM use, types of SM platform used, and purposes of SM use, and the extent of parental awareness and involvement. The qualitative study used semi-structured interview guideline to collect data. The semi-structured interview was mainly concerned with exploring adolescents' SM use experiences and the effects of SM use on their lives, as well as parents' awareness and insights regarding their children's SM use and its effects, and the mediation strategies they might have been using.

### 2.2. Population, sampling, and procedures

The study was conducted on adolescents in a private secondary school (grades 9–12), in Jimma city, Oromia, Ethiopia, in 2021. This school was selected because it contains adolescent students from better socioeconomic backgrounds, who are more likely to use SM widely. For the quantitative study, simple random sampling was used to select 211 adolescents (90 males and 121 females) from the school. The sample size was determined using the following formula:  $n = \frac{N}{1+N(e^2)}$  [32], where,  $n$  is the sample size,  $N$  is the population size, and  $e$  is the desired level of precision. For the qualitative study, purposive sampling was used to select 14 school adolescents (6 males and 8 females) (based on their insights and interest during the survey) and 16 parents (7 males and 9 females) from different socioeconomic backgrounds to capture diversified perspectives. The sample size for the qualitative study was decided based on data saturation.

Data collection for this study began after obtaining ethical clearance, permission to access participants, and informed consent and/or assent. Ethical approval was obtained from the Sociology Department, College of Social Sciences and Humanities, Jimma University. Permission to access participants and conduct the research was obtained from the relevant authority in the study setting. Informed verbal consent and/or assent was obtained from selected adolescents and their parents after discussing the purpose of the study and their participation. Data collection was conducted in Afan Oromo and Amharic. The anonymity and confidentiality of the study participants were protected throughout the study.

### 2.3. Data processing and analysis

After completing data collection process, the quantitative data (questionnaires) were checked for completeness and cleaned, and the qualitative data were translated, organized, and prepared for analysis. Descriptive statistics, specifically frequency and

percentages, were used to present, analyze, and interpret the quantitative data (socio-demographic characteristics of the respondents, the extent of SM use among adolescents, SM platform types used by adolescents, and purposes of SM use among adolescents, and extent of parental awareness and involvement) using SPSS software version 20.0. The qualitative data were analyzed thematically following the following steps: familiarizing with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing report [33]. The qualitative data were then triangulated with the quantitative data.

### 3. Results

#### 3.1. Socio-demographic characteristics

A total of 211 secondary school adolescents participated in the survey, 90 (42.7%) of whom were male and 121 (57.3%) were female, reflecting the higher number of female students at the study setting. The adolescents were aged 15–19 years, with 18.5%, 21.3%, 28.9%, 21.8%, and 9.5% being 15, 16, 17, 18, and 19 years old, respectively. Fourteen adolescents (six males and eight females), from those who participated in the survey, and sixteen parents (seven males and nine females) participated in the interview (qualitative study) (see Table 1).

#### 3.2. Social media use among the respondents

As shown in Table 2, 182 (86.3%) of the 211 participants reported using SM, while the remaining 29 (13.7%) participants reported not using SM. Of the non-users ( $n = 29$ ), 17 were female, and 12 were male. The reasons for not using SM included lack of access to SM facilities ( $n = 15$ , 51.7%), parental restriction ( $n = 9$ , 31.1%), and perceived age inappropriateness to use SM ( $n = 5$ , 17.2%). Respondents in their 15 years of age and in grade 9 were the most non-users, while those in the ages of 17 and 19 and in grade 11 and 12 were the most users of SM. Among SM users, the majority used a variety of SM platforms (more than one sort of SM), with the number of platforms varying from person to person. Telegram (92.3%), YouTube (65.9%), Facebook (53.8%), Tiktok (51.1%), and Instagram (47.8%) were the most commonly used SM platforms among the respondents. Of the widely used SM platforms, Telegram was the dominant (92.3%). In addition to the aforementioned widely used SM platforms, some respondents, 32 (18%), reported using other platforms, including Twitter, Imo, Viber, Snapchat, Pinterest, and Wattpad. The majority of the respondents (63.7%) reported spending much time (more than 3 h) on SM each day. About 35.7% reported spending 3–4 h daily on SM, and 28% reported using it for more than 4 h per day.

**Table 1**  
Socio-demographic characteristics of the participants.

Survey (Quantitative)			Interview (Qualitative)					
			Parents			Adolescents		
Variable	Category	Frequency (percent)	Variable	Category	Frequency	Variable	Category	Frequency
Sex	Male	90 (42.7%)	Sex	Male	7	Sex	Male	6
	Female	121 (57.3%)		Female	9		Female	8
	Total	211 (100%)		Total	16		Total	14
Age (in years)	15	39 (18.5%)	Age (in years)	35–40	6	Age (in years)	15	2
	16	45 (21.3%)		41–45	5		16	3
	17	61 (28.9%)		46 and above	5		17	2
	18	46 (21.8%)		Total	16		18	3
	19	20 (9.5%)	Marital Status	Married	13	Grade/class	19	4
	Total	211 (100%)		Divorced	2		Total	14
				Widowed	1		9	2
				Total	16		10	5
Grade/class	9	44 (20.9%)	Education	Cannot read and write	3	Grade/class	11	3
	10	59 (28.0%)		Certificate	1		12	4
	11	58 (27.5%)		Diploma	3		Total	14
	12	50 (23.7%)		Degree	5	Parents' marital status	Married (living together)	7
	Total	211 (100%)		Masters and above	4		Divorced	3
			Occupation	Total	16		Widowed	2
				Government employee	6		Living separately (but married)	2
				NGO	4	Living arrangement	Total	14
				Merchant	3		With both parents	7
				Housewife	3		With mother	3
				Total	16		With father	1
							Other (with relative)	3
							Total	14

**Table 2**  
Social media usage among adolescents.

SM using status		Reasons for not using SM (For those who responded not using it = 29 (13.7%))	
Status	Frequency (percent)		
Yes	182 (86.3%)	Reasons	Frequency (percent)
No	29 (13.7%)	I don't have the device/access to SM	15 (51.7%)
Total	211 (100%) <sup>1</sup>	I am not allowed by my parents	9 (31.1%)
<b>SM platform types used</b>		Using SM at my age is not appropriate	5 (17.2%)
SM platform type	Frequency (percent)	<b>Reasons or purposes for using SM (for those who responded using it = 182 (86.3%))</b>	
Telegram	168 (92.3%)	Reasons/purposes	Frequency (percent)
YouTube	120 (65.9%)	Entertainment	167 (91.8%)
Facebook	98 (53.8%)	To get new/current information	131 (72.0%)
Tiktok	93 (51.1%)	To connect and communicate with peers/friends	115 (63.2%)
Instagram	87 (47.8%)	To connect with families/relatives	77 (42.3%)
Other	32 (18%)	To meet new people	50 (27.5%)
<b>Devices used to access SM</b>		To post videos or photos (for different purposes)	45 (24.7%)
Device	Frequency (percent)	<b>Average time spent on social media daily</b>	
Smart Phone	149 (81.9%)	Time	Frequency (percent)
Laptop	11 (6.0%)	Less than 1 h	11 (6.1%)
Tablet	14 (7.7%)	1–2 h	55 (30.2%)
Desktop	8 (4.4%)	3–4 h	65 (35.7%)
<b>Access to internet</b>		More than 4 h	51 (28%)
Source	Frequency (percent)	Total	182 (100%)
WIFI	72 (39.6%)		
Mobile Data	56 (30.8%)		
Both WIFI and Mobile data	54 (29.7%)		

### 3.3. Purposes of using social media among the respondents

As shown in Table 2, the respondents reported using SM for different purposes, the most common of which was entertainment or enjoyment (91.8%). Other purposes included getting current information (72%), communicating with friends/peers (63.2%), connecting with families/relatives (42.3%), meeting new people (27.5%), and posting videos and/or photos for different purposes (24.7%). Some respondents mentioned using SM for other purposes, such as taking tutorials or getting clarification of classwork on YouTube. Adolescents participated in the interview also expressed that SM, specifically telegram had helped them with their educational issues, especially during the COVID-19 lockdown, besides for chatting and entertaining. They said that during the lockdown, their teachers were contacting them through telegram as the only way to resume teaching-learning activities. They also expressed that their parents fully allowed them to access the telegram and it was even mandatory to keep in touch with their teachers and other students. There were also adolescents who mentioned using SM for purposes, such as following famous people and fashion and making money, for instance, two of the six male interview participants reported working as YouTubers for business or money making purposes during their free time.

### 3.4. Effects of using social media among the respondents

Adolescents who participated in this study reported experiencing both positive and negative effects in their lives as result of using SM. On the positive side, they reported experiencing refreshment and enjoyments, improvements in academic understandings and performance, better or positive lifestyles, and improvements in their communication and self-expression skills. Adolescents participated in interview mentioned that watching various videos, connecting and communicating with their peers/friends, getting entertaining news from around the world, and observing amusing pictures and gifs renewed their minds, alleviated sadness, and made them spend their leisure time with joy. They also stated that watching SM content related to psychology, science, and others topics helped them to have positive attitude and see things from a variety of perspectives. They also expressed that SM has been simplifying their learning process especially in doing assignments, clarifying ambiguous ideas, and sharing educational materials, and this all improved their academic performances. In addition, some participants stated that SM helped them learn foreign languages, particularly English. For instance, an 18 years old male adolescent said, “Starting from lower class, my parents made me follow different programs in English, and now I prefer watching videos in English, and I can speak English very well and I am performing better in my education.”

The participants (dominantly females) also expressed that they learned better or more positive lifestyle through SM, especially in terms of diet, clothing, hair, and appearance. For instance, a 19 years old female stated, “... I have learned from SM how to make homemade hair and face care products. I have also learned helpful cooking techniques from SM ... I practice the pretty wearing styles and appearances of individuals I follow on SM.” Some participants also stated that SM has helped them to identify or have in mind and practice what they want to be in future. Additionally, some participants stated that SM improved their interaction skills and helped them easily express their feelings by sharing music, videos, pictures, and emoji with one another, and increased their understanding of each other and their ability to openly express themselves to their friends and others. For example, one interview participant said, “I easily express my feelings on SM and take a breath; ... after starting using SM, I have good interaction and communication with people.” (17 years old female)

The participants also expressed that they experienced negative effects in their lives as a result of using SM. A number of them stated that they became addicted to SM and/inappropriate and toxic posts and wasting too much time online, and this had a negative impact their lives. For example, a 15 years old boy said, “SM is very important, but often once I begin using it, I waste too much time on it; it totally attracts your attention and makes you forget your education.” The survey result also revealed that about 63.7% of the respondents spend more than 3 h on SM per day. Additionally, although many of the participants stated that using SM boosted their self-esteem or confidence, some mentioned that it hurt their confidence, making them ashamed of their personalities as they compare themselves to others they saw on SM.

Parents also expressed observing both positive and negative effects of SM use on their adolescent children. On the positive side, some parents stated observing their children having fun and enjoying themselves with less money and effort, improving their general understandings, academic performances, and information acquisition or access. For example, a 42-years-old mother said, “My children have fun with SM observing videos and posts; it keeps them at home, from going out to wrong places; ... If they get confused with something also, they search on google and learn from it.” However, parents stressed the negative effects of SM use than the positive ones. Almost all of them complained that their children often spend too much time daily on SM observing things they believe are enjoyable, which is creating a problem on their education by reducing their commitment and making them ignore their schoolwork, health conditions (sleep deprivation, eye problem, and developing risky behaviors) as well as minimizing their interaction with their parents as they are often on their phone and lack interest to communicate with them or give priority for using SM. For example, one mother expressed these problems as follows:

Children are attracted to SM a lot and do not want to stop once they begin using it; even, they are ignoring what we tell them as parents; they prefer to spend their time on SM than with us; they spend much time staring at a screen observing improper posts and videos, and making bad chats; their minds are more occupied with inappropriate SM issues than with academic ones. (38 years old female)

### 3.5. Parental mediation strategies in adolescents social media usage

As Table 3 shows, 175 (96.2%) of the respondents reported that their parents were aware of their SM use. Of these, 142 (78%) responded that they were allowed to use SM by their parents, while 40 (22%) reported that they use SM without their parents' consent. 86 (47.3%) of the respondents reported that their parents knew what kinds of SM platforms they accessed; however, 96 (52.7%) of them reported that their parents did not know what kind of SM platform they had been using. 108 (59.3%) of the respondents reported the lack of parental supervision of their SM use, while the remaining 74 (40.7%) responded to getting parental involvement. Of the 74 (40.7%) respondents who responded to getting parental supervision, 30 (40.5%) reported time arrangement/restriction, 20 (27%) content selection, 15 (20.3%) co-view and 9 (12.2%) others such as using it only on weekends and selecting where to use SM as strategies to supervise their SM use.

The parents participated in the interview stated that they were aware of their children's SM use and provided them with necessary materials use it. All of them expressed that they allowed their children to use SM because of its importance for education, and five of the 16 interviewed parents added that they allowed their children to use SM with some rules and restrictions, such as where they could watch it (not allowed in the bedroom), allowing it only for weekends, and allowing it to use only for educational purposes. However, of the interviewed parents, only three (one male and two females) responded that they exactly knew the sort of SM platform their children use and prevented their children from using platforms that they believed were inappropriate for them. For example, one mother expressed that she prohibited her child from using Facebook because she believes that wrong information was disseminated by this platform. The remaining 13 parents (six males and seven females) expressed that they did not have any idea of what sort of SM

**Table 3**  
Parental mediation strategies in their adolescent children's SM use.

Do your parents know that you use SM?	Response	Frequency (percent)
	Yes	175 (96.2%)
	No	7 (3.8%)
	Total	182 (100%)
Do your parents allow you to use SM?	Yes	142 (78.0%)
	No	40 (22.0%)
	Total	182 (100%)
Do your parents know the platforms you use?	Yes	86 (47.3%)
	No	96 (52.7%)
	Total	182 (100%)
Do your parents supervise you in using SM?	Yes	74 (40.7%)
	No	108 (59.3%)
	Total	182 (100%)
Through what method do they supervise you?	Arranging/limiting time	30 (40.5%)
	Selecting content	20 (27.0%)
	Co-view	15 (20.3%)
	Others	9 (12.2%)
	Total	74 (100%)

platform their children accessed, although they provided their children with permission to use it for education and mentioned supervising their use. In terms of socioeconomic status, the interview result indicated that participants who were educated and employed (teacher, nurse, lawyer) were more concerned about the issue than those who were less educated, housewives, and merchants.

Both adolescents and parents responded that a time management approach is a commonly used mediation strategy. For example, a 15-year-old boy who participated in the interview said, *“My parents tell me when I can use SM and supervise my use; they allow me to use it only for a short time for refreshments and on weekends”*. Another adolescent, a 17-year-old girl responded, *“They limit my SM use time and advise me to use it in a way that doesn’t affect my education; they do not allow me to spend more than 1 h per day on SM”*. However, as the survey and interview results indicated, time wastage on SM is still one of the major problems of SM use among the respondents. Another widely used mediation strategy is concerned with choosing the contents of and purposes for which adolescents use SM. For example, a 16-year-old girl responded, *“My parents check the content I access and advise me to use SM only for educational purposes, to exchange information, and to do assignments; I am not allowed to watch content that is contrary to our community’s norms”*. However, many adolescents participated in the interview responded that their parents did not strictly control their SM usage and did not have an idea or awareness of the content they accessed. Additionally, as the survey result indicated (Table 3), 59.3% of the respondents reported a lack of parental supervision in their SM usage, and 52.7% reported that their parents did not know what kind of SM platform they had been accessing.

#### 4. Discussion

This study aimed to assess SM use, effects, and parental mediation among school adolescents in Ethiopia. Specifically, it assessed the extent of SM use, the types of SM platforms used, the purposes or reasons for using SM, the effects of SM use on adolescents, and the mediation strategies exercised by their parents.

The majority (86.3%) of the adolescents who participated in the current study were active SM users. Literature also indicates that the extent and intensity of SM use among adolescents is increasing globally [6,8,27,34,35]. The current study revealed that adolescents use more than one type of SM platform. According to this study, Telegram, YouTube, Facebook, Tiktok, and Instagram were the dominantly used SM platforms among adolescents, in that order. Telegram was the most popular SM platform, with more than 90% of respondents using it. The adolescents reported using SM platforms for a variety of reasons or purposes. The most common purposes reported in this study included entertainment, getting information about current issues, communicating with friends/peers, connecting with families or relatives, meeting new people, and posting photos and/or videos for different purposes, such as making money. Literature also indicates that adolescents use SM platforms for different purposes, including for learning, inspiring and entertaining, and social networking purposes [27,36–38]. Parents who participated in the current study believed that SM is helpful for academic processes and they provide it to their children to help them in their learning process. However, 91.8% of adolescents who participated in this study reported using SM mainly for entertainment purposes. Similarly, literature indicates that adolescents use SM for recreational and social networking purposes rather than academic purposes [27,38].

In the current study, both adolescents and parents reported both positive and negative effects of SM use among adolescents. Adolescents emphasized more the positive effects than the negative effects, while parents stressed the negative effects than the positive effects. Adolescents reported experiencing a variety of positive effects of using SM in their lives, including refreshment or enjoyment, better educational understandings and performances, healthier lifestyles, and improvements in communication and self-expression skills. The most widely mentioned positive effect of using SM among adolescents is getting refreshment. SM is reported to help them overcome boredom and stress. Parents also pointed out that SM can be recreational and enjoyable for adolescents. However, what adolescents perceive as recreational and engaging may be unsuitable for their current and future lives [34,39]. Adolescents who participated in the current study also expressed that they have acquired better and healthier lifestyles by following health messages or videos and well-known public personalities through SM. However, following public figures may also have positive or negative consequences on their lives based on the actions and messages of those public figures or role models [40].

Some adolescents mentioned that they have been addicted to SM and/or inappropriate contents and wasting too much time online, and this has been negatively affecting their behaviors and lives. And many parents stated that because adolescents often spend too much time on SM, it is negatively affecting their commitment for education. In addition, parents discussed that SM using is negatively affecting their children’s health conditions and their interaction with them due to their addiction to SM. Literatures has also reported many risks associated with SM use among adolescents [15,16,34,35], and Lemish [41] stated that the media influences adolescent development in all aspects.

As literature indicates, the extent of SM’s effect on adolescents is influenced by parental awareness and mediation [20,23,24,42]. The current study found that parents were aware and supportive of their children’s SM use for educational purposes. However, it reported that 59.3% of parents have no control over their children’s SM usage, and a number of adolescents (22%) reported using SM even without the consent of their parents, and 52.7% of parents were reported to be unaware of the types of the SM platforms their children use.

According to Livingstone and Helsper [42], the strategies for supervising or protecting children’s Internet use include: active, restrictive, and co-viewing. In the current study, among parents who tried to supervise their children’s SM usage, time restriction was the most widely employed strategy. However, 63.7% of adolescents reported spending more than 3 h on SM per day, despite their parents setting time restrictions. Parents may fail to supervise their children’s SM usage effectively, as they may not be as fast as their teenage children in learning and updating knowledge and skills of SM usage [43,44]. This may be especially true in developing countries like Ethiopia, where parents may lack SM knowledge and literacy. Additionally, the tradition of having large families with more than five children, combined with struggle to make a living, may make it difficult for parents to supervise their children’s SM



usage [45,46]. In the current study, content selection was the other widely employed mediation strategy. However, this also requires good SM knowledge, understanding, and literacy among parents to be effective.

## 5. Strengths and limitations

This study employed a mixed methods approach, specifically a concurrent triangulation design, to gain a more comprehensive understanding of the issue under consideration. For the quantitative component, simple random sampling was used to select study participants, ensuring equal probability of selection for all. The qualitative component employed a maximal variation strategy to capture diversified perspectives, especially from parents. However, it is important to note that the study was solely focused on a private school, which may limit the generalizability of the findings.

## 6. Conclusion and recommendations

This study assessed SM use, effects, and parental mediation among school adolescents in Ethiopia. It found a widespread use of various SM platforms among the respondents. It found that adolescents use SM for different reasons or purposes. Both adolescents and parents reported that adolescents experience both positive and negative effects of SM use, related to academic, mental, social, and health aspects. However, while adolescents emphasized the positive effects, parents stressed the negative effects. While many parents supported their children's SM use for educational purposes, the majority did not control or supervise their children's SM usage.

Based on the findings of this study, the researchers recommend the following.

- ✓ Adolescents need to be SM literate and aware of the benefits and risks of SM using, including how, why, where, and when to use SM platforms.
- ✓ Parents should openly discuss the benefits and risks of SM use with their children, monitor their children's SM usage, and ensure that they use it safely, besides providing their children with required facilities to use it.
- ✓ The government, schools, and other concerned bodies should work to raise awareness and understanding of SM usage, benefits, and risks among communities, parents, and adolescents.
- ✓ Schools should initiate and promote education and discussion on SM usage, benefits, and dangers among adolescents.
- ✓ The Government should introduce effective policies to help ensure and promote healthy and effective use of SM platforms.
- ✓ Researchers and experts in SM, with support of all concerned bodies, should publicize the effects associated with using SM and introduce and promote practical and effective SM monitoring strategies among children, adolescents, and the wider society.

## Additional information

No additional information is available for this paper.

## Data availability statement

All data generated and analyzed during this study are included in this article.

## CRediT authorship contribution statement

**Lidiya Dereje Mekonen:** Writing – review & editing, Writing – original draft, Software, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Diribe Mekonene Kumsa:** Writing – review & editing, Supervision, Resources, Methodology, Formal analysis, Conceptualization. **A. Adamu Amanu:** Writing – review & editing, Supervision, Software, Methodology, Formal analysis, Conceptualization.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## References

- [1] M. Rouse, Social media, Available at: <https://www.techtarget.com/whatis/definition/social-media>, 2021. (Accessed 18 October 2021).
- [2] D. Chaffey, Global social media research summary August 2020, Smart insights 3 (2020).
- [3] J. Poushter, C. Bishop, H. Chwe, Social media use continues to rise in developing countries but plateaus across developed ones, *Pew research center* 22 (2018) 2–19.
- [4] M. Michikyan, C. Suárez-Orozco, Adolescent Media and Social Media Use: Implications for Development, vol. 31, Sage Publications Sage CA, Los Angeles, CA, 2016, pp. 411–414.
- [5] S. Ghai, L. Magis-Weinberg, M. Stoilova, S. Livingstone, A. Orben, Social media and adolescent well-being in the Global South, *Current Opinion in Psychology* (2022) 101318.
- [6] M. Anderson, J. Jiang, Teens, social media & technology 2018, *Pew Research Center* 31 (2018) 1673–1689, 2018.
- [7] M.L. Antheunis, A.P. Schouten, E. Krahmer, The role of social networking sites in early adolescents' social lives, *J. Early Adolesc.* 36 (3) (2016) 348–371.

- [8] F. Angelini, C. Marino, G. Gini, Friendship quality in adolescence: the role of social media features, online social support and e-motions, *Curr. Psychol.* (2022) 1–17.
- [9] W. Akram, R. Kumar, A study on positive and negative effects of social media on society, *Int. J. Comput. Sci. Eng.* 5 (10) (2017) 351–354.
- [10] M. Zewdu, T. Dadi, H. Taye, G. Gezu, The impacts of social media on academic achievement of female students at Jimma University, *International Journal of Scientific and Research Publications* 7 (5) (2017) 679–694.
- [11] J.A. Beal, Impact of social media on adolescents, *MCN Am. J. Matern./Child Nurs.* 47 (2) (2022) 108.
- [12] K. Mahan, *Social Media and Teenagers' Wellbeing in Residential School Settings*, The Chicago School of Professional Psychology, 2021.
- [13] S.S. Ho, L. Chen, A.P. Ng, Comparing cyberbullying perpetration on social media between primary and secondary school students, *Comput. Educ.* 109 (2017) 74–84.
- [14] N. McCrae, S. Gettings, E. Purssell, Social media and depressive symptoms in childhood and adolescence: a systematic review, *Adolescent Research Review* 2 (2017) 315–330.
- [15] I. Sarabia, A. Estévez, Sexualized behaviors on Facebook, *Comput. Hum. Behav.* 61 (2016) 219–226.
- [16] N.L. Young, D.J. Kuss, M.D. Griffiths, C.J. Howard, Passive Facebook use, Facebook addiction, and associations with escapism: an experimental vignette study, *Comput. Hum. Behav.* 71 (2017) 24–31.
- [17] D.A. Christakis, M.A. Moreno, Trapped in the net: will internet addiction become a 21st-century epidemic? *Arch. Pediatr. Adolesc. Med.* 163 (10) (2009) 959–960.
- [18] G.S. O'Keeffe, K. Clarke-Pearson, The impact of social media on children, adolescents, and families, *Pediatrics* 127 (4) (2011) 800–804.
- [19] K.A. Allen, T. Ryan, D.L. Gray, D.M. McInerney, L. Waters, Social media use and social connectedness in adolescents: the positives and the potential pitfalls, *The Educational and Developmental Psychologist* 31 (1) (2014) 18–31.
- [20] P. Nikken, J. Jansz, Parental mediation of children's videogame playing: a comparison of the reports by parents and children, *Learn. Media Technol.* 31 (2) (2006) 181–202.
- [21] J.I.M. De Morentin, A. Cortés, C. Medrano, P. Apodaca, Internet use and parental mediation: a cross-cultural study, *Comput. Educ.* 70 (2014) 212–221.
- [22] R.M. Chandrima, et al., Adolescent problematic internet use and parental mediation: a Bangladeshi structured interview study, *Addictive Behaviors Reports* 12 (2020) 100288.
- [23] M.E. Len-Ríos, H.E. Hughes, L.G. McKee, H.N. Young, Early adolescents as publics: a national survey of teens with social media accounts, their media use preferences, parental mediation, and perceived Internet literacy, *Publ. Relat. Rev.* 42 (1) (2016) 101–108.
- [24] H. Sasson, G.S. Mesch, Parental mediation. *The International Encyclopedia of Media Literacy*, 2019, pp. 1–6.
- [25] L.S. Clark, Parental mediation theory for the digital age, *Commun. Theor.* 21 (4) (2011) 323–343.
- [26] D. Ermiyas, *Pornographic Consumption and its Association with Sexual Debut Among High School Students of Gulele Sub-city, Addis Ababa, Ethiopia*, Addis Ababa University, 2015.
- [27] F. Mulisa, D.A. Getahun, Perceived benefits and risks of social media: Ethiopian secondary school students' perspectives, *Journal of technology in behavioral science* 3 (2018) 294–300.
- [28] O.Y. Mohammed, E. Tesfahun, A. Mohammed, Magnitude of sedentary behavior and associated factors among secondary school adolescents in Debre Berhan town, Ethiopia, *BMC Publ. Health* 20 (2020) 1–7.
- [29] K. Asrese, H. Muche, Online activities as risk factors for Problematic internet use among students in Bahir Dar University, North West Ethiopia: a hierarchical regression model, *PLoS One* 15 (9) (2020) e0238804.
- [30] N. Mengistu, et al., Prevalence and factors associated with problematic internet use among Ethiopian undergraduate university students in 2019, *Journal of Addiction* 2021 (2021).
- [31] J.W. Creswell, V.L.P. Clark, *Designing and Conducting Mixed Methods Research*, Sage publications, 2017.
- [32] V. Kasiulevičius, V. Šapoka, R. Filipavičiūtė, Sample size calculation in epidemiological studies, *Gerontol.* 7 (4) (2006) 225–231.
- [33] V. Braun, V. Clarke, Using thematic analysis in psychology, *Qual. Res. Psychol.* 3 (2) (2006) 77–101.
- [34] D. Reid, P. Weigle, Social media use among adolescents: benefits and risks, *Adolesc. Psychiatr.* 4 (2) (2014) 73–80.
- [35] A. Vannucci, E.G. Simpson, S. Gagnon, C.M. Ohannessian, Social media use and risky behaviors in adolescents: a meta-analysis, *J. Adolesc.* 79 (2020) 258–274.
- [36] S. Vahdat, F. Mazareian, The impact of Telegram on learning of collocational knowledge among EFL high school students, *Applied Linguistics Research Journal* 4 (3) (2020) 37–51.
- [37] S. Faraji, S. Valizadeh, A. Sharifi, S. Shahbazi, M. Ghojzadeh, The effectiveness of telegram-based virtual education versus in-person education on the quality of life in adolescents with moderate-to-severe asthma: a pilot randomized controlled trial, *Nursing Open* 7 (6) (2020) 1691–1697.
- [38] A. Kalam, C.L. Goi, Y.Y. Tiong, Student Motivations for Social Media Use and Their Effects on Academic Performance-A Meditational Approach in Emerging Market, *Interactive Technology and Smart Education*, 2023.
- [39] E. Bozzola, et al., The use of social media in children and adolescents: scoping review on the potential risks, *Int. J. Environ. Res. Publ. Health* 19 (16) (2022) 9960.
- [40] A. Bandura, Human agency in social cognitive theory, *Am. Psychol.* 44 (9) (1989) 1175.
- [41] D. Lemish, Introduction: children, adolescents, and media: creating a shared scholarly arena, in: *The Routledge International Handbook of Children, Adolescents and Media*, Routledge, 2013, pp. 27–36.
- [42] S. Livingstone, E.J. Helsper, Parental mediation of children's internet use, *J. Broadcast. Electron. Media* 52 (4) (2008) 581–599.
- [43] R. Wang, S.M. Bianchi, S.B. Raley, Teenagers' Internet use and family rules: a research note, *J. Marriage Fam.* 67 (5) (2005) 1249–1258.
- [44] S. Yardi, A. Bruckman, Social and technical challenges in parenting teens' social media use, in: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 2011, pp. 3237–3246.
- [45] S. Jiang, Supervision matters: teenagers' perception of parents' involvement in their internet use, *Journalism* 5 (1) (2015) 34–44.
- [46] N. Sonck, P. Nikken, J. De Haan, Determinants of Internet mediation: a comparison of the reports by Dutch parents and children, *J. Child. Media* 7 (1) (2013) 96–113.