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Prevalence of Social Media Addiction and Associated Factors among Government Employees in Gumbi Bordode District, West Hararghe Zone, Eastern Ethiopia: An Institution-Based Cross-Sectional Study

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ABSTRACTS

Background: Social media platforms make it easier to connect with people around the world, but overuse can result in addiction. Social media addiction has been shown to have detrimental effects on performance, productivity, and job satisfaction.

Objective: The purpose of this study was to evaluate the prevalence of social media addiction and associated factors among public employees in Gumbi Bordode, West Hararghe Zone, Oromia, Eastern Ethiopia, from February 1 to 20, 2025.

Methods: The prevalence of social media addiction and related factors among 334 public employees was investigated using an institutional-based cross-sectional design. Multivariable logistic regression was used to analyse the data, and associations were found using an Adjusted Odds Ratio (AOR) at a 95% confidence interval.

Results: Our study found that 15.3% of workers are addicted to social media (11.46–19.14, 95% C-I). Furthermore, the study found that several factors were statistically significantly linked to social media addiction, including using social media at home [AOR = 0.4, 95% CI (0.2, 0.97)], sharing and downloading photos and videos [AOR = 5, 95% CI (1.32, 23)], being married [AOR = 0.16, 95% CI (0.063, 0.38)], and using social media more than two times a day [AOR = 7.7, 95% CI (2.4, 25)].

Conclusion: Social media addiction affected approximately one in six government employees. Interventions should focus on promoting healthy social media use, particularly among unmarried employees and frequent users

Keywords: Social media, social media Addiction

INTRODUCTIONS

Backgrounds

Social media platforms are computer-mediated services that enable the development of online communities among individuals with shared interests or background (Ruth N. Bolton et al., 2019). Beyond facilitating interaction, these tools allow for the creation and exchange of diverse content, ranging from text and imagery to video (Tilahun Yeshambel et al., 2016). ..Central to these platforms is the ability to maintain public or semi-public profiles and cultivate networks of followers (Noreen Kanwal et al., 2021).

Individuals utilize these networks to stay informed, connect with others regardless of physical distance, and foster a sense of "global village" intimacy (Tilahun Yeshambel et al., 2016). However, the ubiquity of these platforms has also raised concerns regarding social media addiction a state of impaired control over usage that can lead to negative personal consequences. Data underscores the massive scale of this trend: global social media users climbed to 4.95 billion by 2023, a significant increase from just 2.08 billion in 2015 (Muhammad Moiz Khan & Lin, 2024). This growth is reflected in regional statistics as well, with Africa witnessing a steady rise in users, and Ethiopia reaching 6.4 million social media users by 2023, a segment dominated by Facebook and Messenger (Noreen Kanwal et al., 2021).

Statement of problem

While social media platforms are often encouraged as tools for professional research, they frequently become sources of distraction, leading employees to neglect their intended tasks (ZELEKE, 2016) . Despite the growing integration of these tools within public organizations, empirical research on their specific impact on workplace outcomes remains limited (Pananda Chansukree et al., 2022). Emerging evidence suggests that social media addiction characterized by symptoms such as withdrawal, escapism, and impaired concentration negatively affects both individual job performance and team collaboration (6). Furthermore, excessive use has been linked to "digital exhaustion," which diminishes employee motivation, mental health, and overall workplace morale (G R S R C Samaraweera & Wijesinghe, 2021).

International case studies reflect these trends. For instance, research in the Philippines and Indonesia demonstrates a significant negative correlation between social media addiction and

job performance, with high levels of addiction reported among government staff (Jashvini Amirthalingam & Khera, 2024). Similarly, studies in Zimbabwe highlight how non-work-related social media use impedes service delivery in public agencies (Kong et al., 2024). (While findings in South Africa suggest that problematic internet use may vary by professional sector (TAO LUO et al., 2021) and that many employees acknowledge the addictive nature of these platforms despite opposing strict bans (Matang Matang et al., 2021). The situation remains complex. In the Ethiopian context, there is a notable gap in literature; existing policies are often underdeveloped due to a lack of local, comprehensive data on social media addiction among public servants. This study aims to address this gap by examining the prevalence and drivers of social media addiction within the Gumbi Bordode district public sector.

Significance of study

By highlighting the risks associated with social media use at work and providing specific remedies, this study assists decision-makers. Local government organizations, especially the Gumbi Bordode administration, as well as the public service and health sectors, will greatly benefit from it. The regional health bureau and other stakeholders use the findings as a crucial decision-making tool, paving the way for further studies in related fields. These results may also aid organizations and HR managers in better understanding the difficulties associated with social media use in the workplace. This will enable them to implement efficient strategies for tracking or enhancing employee performance, establishing explicit social media policies, and enhancing overall workforce productivity and behaviour Objective.

general objective

The general objective of the study is to assess the prevalence of social media addiction and associated factors among public employee in Gumbi Bordode, West Hararghe Zone, Oromia, Eastern Ethiopia from February 1 _20 /2025.

specific objective

- To determine the prevalence of social media addiction among public employee in Gumbi Bordode district
- To identify factors associated with social media addiction among public employee in Gumbi Bordode district

MATERIAL AND METHODS

Study Population

The study population consisted of Gumbi Bordode district governmental employees who used social media and were present in the area during data collection from February 1 - 20, 2025.

Study unit

The study unit was a public employee who was in a district and randomly selected among the study population.

Eligibility criteria

Inclusion criteria

Gumbi Bordode district public employees who were present during the data collection period.

Exclusion criteria

Gumbi Bordode district public employees who were sick or unable to communicate during data collection.

Sample size determination

sample size determination for first objective

The sample size was calculated using a formula for estimation of a single population proportion; The research study conducted to examine the effects of social media addiction on the daily work performance of government employees in the Zamboanga Peninsula Region of the Philippines with 70% of respondents reporting moderate to high levels of addiction (Sulasula & Josephine, 2023). with confidence interval 95%, marginal of error 5%. Considering 5% non-response rate,

$$n = (Z_{\alpha/2})^2 \times P(1-p) / d^2$$

Whereas n = minimum sample size required for the study, p = the estimated proportion of social media addiction among employee = (70%). $Z_{\alpha/2}$ = the cut off value of standard normal distribution at 95% confidence level = 1.96, d = Margin of error = 5% (0.05).

$$n = \frac{(1.96)^2 \times 0.7(1-0.7)}{0.05^2}$$

$$(0.05)^2$$

$$n = 332$$

Then 5% of the non-response rate of 332, which is 16, was added to get 339. Therefore, the final sample size is =339.

Sample size calculation for second objective

The sample size for the second objective of the study was determined using the double population proportion formula. This calculation aimed to identify factors significantly associated with Social Media Addiction among public employees in the Gumbi Bordode district of West Hararghe. The sample size was computed using Epi Info software version 7.1, based on the following assumptions: a 95% confidence level and 80% power. The resulting sample size for the second objective was 184, as summarized in Table 1. (summarized in Table 1).

The sample sizes are calculated for the first and second objectives, and the largest sample size is 339 from the first objective. Thus, the final sample size for the study is 339 Public Employees in Gumbo Bordode district.

Sampling procedure and techniques

A simple random selection procedure was employed to choose a sample from the study population, which consisted of public employees who used social media. Each employee was first given the code. After the sample size was established and known, a random number generator was employed without bias to choose the sample.

Study variables

dependent variables

Social media addiction (Yes or No)

Independent variables

The independent variables in the study are two-fold; social media use characteristics and socioeconomic and demographic factors. The socio-economic and demographic profile included age, sex, religion, marital status, income, work experience, current position of the respondent.

Alongside these demographic factors, the research examines specific features of social media use to better understand the patterns of digital engagement. These variables include types of devices used to access platforms, types of social media platforms used and frequency of use per day. The analysis also includes the total time of using social media, the main goal of using social media and the usual physical location in which the respondent uses the platforms

Operational definition

Social media: social media can be described as an on-line service or platform that focuses on facilitating building of social networks or social relations among people who share the same or similar interests, activities, backgrounds or real-life connection (Ruth N. Bolton et al., 2019).

Social media addiction: is difficult to define, but it is categorized as a type of internet addiction of behavioural addiction in general addiction. In the literature, some synonyms are interchangeably used as online social network site addiction The BSMAS in Chinese was used. The scale includes all six of Griffiths' components for addiction. Each issue was given a 5-point Likert scale, from "1 to 5. very rarely" to "1 while very often 5." A 3-item scale was created by assigning an item to each condition. The BSMAS score of 24 out of 30 was shown to be the ideal cut-off value based on the gold standards of clinical diagnosis (TAO LUO et al., 2021).

Data quality control

Over the course of two days of the training, data collectors and supervisors were trained in detail on the principal investigator's objectives and data collection process. Any ambiguous or unclear questions were revised prior to data collection. Pre-testing was conducted to determine the acceptability and administer 5% of the sample in those social media user employees not included in the actual study area and the applicability, and reliability of the questionnaire's procedures and tools. To ensure completeness and consistency, the supervisor was closely monitoring data collectors both before and during the collection process. The principal investigator oversaw the procedure's proper execution and ensured that the collected data was completed and logically consistent. To reduce errors, two people double-checked the data entered during the analysis.

Data processing and analysis

After data collection, the questionnaire was checked for completeness, coded, entered and cleaned using Epi-Data version 4.6 and then finally exported to SPSS 26 for analysis.

Descriptive statistics, binary and multivariable logistic regression analysis will be used to identify predictors of Social Media Addiction.

Descriptive statistical analysis such as frequencies, measures of central tendencies and measure of variations was computed to summarize and describe the characteristics of study participants and the information was presented using frequencies, graphs, tables and figures. Bi-variable analysis, COR with 95% CI, was used to see if the association between independent variables and dependent variables was checked by using binary logistic regression. The result was presented as proportion, output of logistic regression, as COR to show the strength of association between independent variables and dependent variables. Independent variables with p-value of < 0.05 at 95% CI in bi-variable analysis and which can fit a model of regression was a candidate for multivariable logistic regression analysis to control the confounding factors.

Multicollinearity was checked to see the linear correlation among the associated independent variables by using VIF and standard error. All Variables were VIF < 10 and tolerance > 0.1 . Hosmer-Lemeshow test and Omnibus test was checked and indicated p-value 0.97 and 0.000 respectively which was accepted. AOR with 95% CI was estimated to show the relationship between the independent variables and the dependent variable after controlling the effects of confounders with 95% CI. Variables with P-value ≤ 0.05 were declared as having statistically significant association with the outcome variable. BSMAS, the gold standard for clinical diagnosis cutting points was 24 (TAO LUO et al., 2021).

Ethical Considerations

The Haramaya University College of Health and Medical Sciences' Institutional Health Research Ethics Review Committee (IHRERC) granted ethical approval. The graduate studies school's authorisation letter was sent to the Gumbi Boredode district health office, as well as the public service and human resources office, to gain permission to conduct the research. In each study, data collectors appropriately informed participants about the study's goal, technique, and potential benefits, and study participants provided informed, voluntary written and signed agreement. They may refuse or withdraw from the study without giving a reason. They had the right to ask questions during the data collection procedure. Furthermore, the name of the study in which the participant took part was omitted. They may refuse or withdraw from the study without giving a reason. They had the right to ask questions during the data collection procedure. In addition, to address the concerns of the study participants, the name of the study

in which they participated was deleted from the questionnaire. Only authorised individuals will be given access to raw data obtained from them.

RESULTS

Socio-demographic characteristics of the study participants

The study assessed the prevalence of social media addiction and its associated factors among public employees in Gumbi Bordode, West Hararghe Zone, Oromia, Eastern Ethiopia. A total of 339 public employees were selected for the study, of whom 334 participated, giving a 98.5% response rate. Among the participants, 214 (64%) were male and 120 (36%) were female. (summarized on Figure 1). In terms of marital status, the majority of the participants, 224 (67.1%) were married, while 76 (23%) were single. (summarized on Figure 2). Regarding age, 166 (50%) of the participants were younger than 30 years, whereas only 7 (0.3%) were older than 50 years. (summarized on Figure 3). Concerning participants' occupational positions, the majority, 241 (72%), were common workers. In addition, 49 (15%) were supervisors and 44 (13%) were managers. The distribution of participants according to their occupational position. (summarized on Figure 4).

Social media utilization characteristics

Among the 334 participants, all reported using at least one social media platform. Facebook was the most commonly used platform, accounting for 34.4% of users, while 3.6% reported using other social media platforms. Participants used social media for different purposes, with approximately 52.1% using it for work-related activities. In addition, 61% of the employees reported using social media at home. (Summarized on Table 2). Regarding the amount of time spent on social media, 100 (30%) participants reported spending between 30 minutes and 1 hour per day, while 55 (16.5%) spent more than 2 hours on social media. (summarized on Figure 5). In terms of frequency of use, 84 (25%) participants accessed social media once, whereas 126 (38%) reported using social media more than twice. (summarized on Figure 6).

Six components of social media addiction

The study findings showed that social media played an important role in the daily lives of many employees. About 36.2% of participants reported that they sometimes spent a considerable amount of time checking social media to keep up with recent events. Similarly, 36.2% said that they sometimes needed to use social media more often to achieve the same level of enjoyment

or satisfaction. In addition, 38% of employees reported occasionally using social media to distract themselves from or avoid personal problems.

The findings also indicated some difficulties in controlling social media use. About 44% of participants reported that they had occasionally tried but failed to reduce the amount of time they spent on social media. Furthermore, 33% sometimes felt guilty when they could not access social media for various reasons. About 31% reported that they occasionally neglected their friends, family members, or partners because of their social media use. (summarized on Table 3). Overall, the study found that 51 out of the 334 participants (15.3%) met the criteria for social media addiction. (Summarized on Figure 7).

Factors Associated with Social Media Addiction

The multivariable logistic regression analysis showed that the model had good internal consistency, with a Cronbach's alpha of 0.95, which was above the acceptable threshold. The model explained approximately 47% of the variation in social media addiction. The Hosmer–Lem shows goodness-of-fit test indicated that the model fit the data well ($p = 0.914$). After adjusting for other factors, male employees had 35% lower odds of social media addiction compared with female employees (AOR = 0.65, 95% CI: 0.29–1.46). Employees who spent more than two hours per day on social media had nearly twice the odds of addiction compared with those who spent less than 30 minutes per day (AOR = 1.8, 95% CI: 0.18–17.15). The frequency of social media use was also associated with addiction. Employees who accessed social media more than twice per day had approximately eight times higher odds of developing social media addiction compared with those who used it only once per day (AOR = 7.7, 95% CI: 2.4–25.0).

The place where social media was used was another associated factor. Employees who primarily used social media at home had 60% lower odds of addiction compared with those who used it at work (AOR = 0.40, 95% CI: 0.20–0.97). Similarly, married employees had 84% lower odds of social media addiction than single employees (AOR = 0.16, 95% CI: 0.06–0.38). Regarding the purpose of social media use, employees who mainly used social media for sharing and uploading videos had approximately five times higher odds of addiction compared with those who primarily used it to communicate with friends (AOR = 5.3, 95% CI: 1.19–23.81). (summarized in Table 4).

DISCUSSION

The study to determine the prevalence of social media addiction and risk factors involved 334 civil servants from the Gumbi Bordode districts. This study had a 98.5% response rate, with 215 individuals (64%) identifying as male. Regarding platform usage, we found that 115 (34.4%) employees used Facebook, 107 (32%) used Telegram, 174 (52.1%) used social media mainly for work-related purposes, 67.1% were married, 220 (65.9%) were Muslims, 166 (50%) were under 30, 126 (38%) used social media more than twice, and 100 (30%) employees spent between thirty and an hour.

The Bergen Social Media Addiction Scale has a mean of 17.67 and a standard deviation of 4.55, according to BSMAS. According to this study, 283 participants (84.7%) did not meet the criteria for dependence, whereas 51 participants (15.3%) did. Of the participants, 130 (38.9%) occasionally spend a lot of time contemplating events or content on social media, 125 (37.4%) sometimes spend more time than anticipated on social media, and 132 (39.5 percent) experience anxiety or depression. 146 people (43.8%) occasionally attempted and failed to restrict their use of social media, and 146 people (43.7%) occasionally experienced anxiety or agitation when they were prohibited from using social media.

The reliability and validity of the analytical model were confirmed. Cronbach's alpha for the model was 0.95 and the p-value for the Hosmer-Lemeshow test was 0.914, indicating a satisfactory model fit. Additionally, the multivariate logistic regression model accounted for 47% of the variance. Results show that demographic factors, particularly marital status and gender, significantly influence the likelihood of social media addiction, with single status and female gender emerging as important markers of vulnerability. Finally, behavioural patterns such as the total time spent on social media each day and the nature of online interactions are important predictors. Employees who spend more than two hours on these platforms, or who frequently share and download visual content, are at significantly higher risk of developing addictive behaviours than their colleagues.

In order to ascertain the prevalence of social media addiction and related factors, a study was conducted in the Gumbi Bordode district, where 51 people (15.3%) had an addiction. Our results are superior to three studies conducted in Hungary, where a recent meta-analysis revealed that 9.7% of medical professionals suffered from internet addiction (9) and the prevalence and contributing factors of social media addiction among Chinese employees (11.33 percent) (Weitao Kong et al., 2024). In an Iranian study on OCD and smartphone addiction

among public sector workers, 438 respondents (11.1%) had smartphone addiction (Ahmad Pirani et al., 2026); however, our results were lower than those from Sri Lanka, where 84 employees (34.85%) had social media addiction (Mussarat Jabeen Khan et al., 2024). These variations in prevalence could be caused by regional variations in digital infrastructure, work places culture, or the dominance of social media sites like Facebook and Telegram that influences local communications environments.

While a Hungarian study of high school teachers found that men had significantly higher odds of addiction than women, our study found that women had higher odds than men. In line with our findings, a Japanese study on internet addiction among school employees found that women had higher odds than their male counterparts to engage in addictive behaviours. These contradictory findings show that sex-based vulnerability is most likely contextually and culturally dependent rather than biological, since different genders in different civilizations use social media for social support, professional networking, and enjoyment.

According to a study on the prevalence of social media addiction among public employees in the Gumbi Bordode district, single employees have higher odds than married employees to suffer from social media addiction. This finding is corroborated by two studies done among hospital staff in Hungary (Weitao Kong et al., 2024). Additionally, a study conducted in Iran on smartphone addiction and obsessive-compulsive disorder among public sector employees found that single workers were higher more odds to develop an internet addiction. Our results, along with those of the international literature, consistently demonstrate the critical role that marriage plays in society (Mussarat Jabeen Khan et al., 2024).

Lastly, our results highlight the importance of the platform's usage. This illustrates how addictive our contemporary passive consumption platform of content can be and gives the impression that the primary cause of addiction is the sharing and uploading of visual media rather than insignificant interpersonal communication. The majority of workers in our study downloaded and shared visual content, which is in line with a Japanese study on the prevalence of internet addiction among working adults (Assa Gakui Munene & Nyaribo, 2013). Our findings point to an even stronger correlation between addiction and behaviour. According to our research, social media users who downloaded and shared images and videos were higher odds than those who merely conversed with friends. The potential for addiction is known to be influenced by the length and intensity of visual interaction, and the risk of heavy use rises dramatically when it surpasses two hours per day (TAO LUO et al., 2021).

Limitation

The majority of the research on social media addiction was done on university students, thus there was a shortage of data from public employees. Additionally, the study was done to determine how prevalent a use of social media was among employees, but there were a few associated factors.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The study found that 15.3% of workers were addicted to social media. The location of social media use, employees' marital status, and frequency of social media use were all statistically significant predictors of social media addiction. Furthermore, the total amount of working hours influences the decision to become addicted to social media. It represents their good relationship. Employees who work long hours frequently use social media for both business and leisure purposes, such as watching films or sharing photographs and comments with co-workers over the office network. This allows people to feel less pressured at work. As a result, employees' addiction to social media at work is encouraged by their total working hours.

RECOMMENDATIONS

The study recommends that the West Hararghe Public Service Office and Gumbi Bordode Woreda Administration strengthen workplace social media policies by revising personnel manuals, employment contracts, and professional codes of conduct to address inappropriate social media use. Public workers should be trained on the effects of social media addiction on work performance, while organizations should establish mechanisms to limit non-work-related social media use during working hours. Further research is also recommended to identify additional factors contributing to social media addiction, given that 15.3% of workers in this study were identified as having social media addiction.

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Authors contributions

G B is the principal investigator of the study starting from title selection to writing the proposal, data collection, data entry, and data analysis and writing the initial draft of the manuscript. D K and A D supervised the study design, data collection, data analysis, and writing manuscript. DK and AD provided overall guidance on the study design and data collection method. All authors have contributed substantially to the study and approved the submitted manuscript.

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Data Availability

The data sets generated and/or analysed during the current study are not publicly available due to confidentiality of the participant data, but data are available from the author on reasonable request.

ABBREVIATIONS and ACRONYMS

BSMAS: Bergin Social Media Addiction Scale, **SMA:** Social Media Addiction, **HR** Human Resources, **DSM:** Diagnostic and Statistical Manual of Mental Disorder, **SM:** social media, **PIU:** Problematic Internet Use, **SNS:** Social Network Site, **AOR:** Adjusted odds ratio, **CI:** Confidence Interval, **COR:** Crude odds ratio **IHREERC:** Institutional Health Research Ethics Review Committee, **SPSS:** Statistical Package for Social Sciences, **VIF:** Variance inflation factor

Declarations

Conflict of interest

The authors declare that they have no competing or potential conflicts of interest.

Ethics approval and consent to participate

This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was granted by the College of Health and Medical Sciences Institutional Health Research Ethics Review Committee at Haramaya University (Reference No. IHREERC/025/2025). Official permission was secured from the Gumbi Bordode district administration via a reference letter from the graduate school (Reference No. 9/01/7271/17 ቆ/ል/ጽ), and subsequent support letters were distributed to every woreda sector. Written informed consent was obtained from each participant's parents or caregivers after a thorough explanation of the study's objectives. Participants were explicitly informed of their right to withdraw from the study at any time without penalty or restriction. Confidentiality was strictly maintained throughout the study by anonymizing data with code numbers and storing questionnaires securely. All procedures performed in this study were in compliance with the relevant institutional and national guidelines and regulations.

Consent for publication

Not applicable

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Table 1 Sample size calculation for Associated factors with Social Media Addiction among Gumbi Bordode public employees,2025

Variable	Out Come	Sample size by adding 10%	AOR	Reference
Sex Category Male to Female	50% Both sexes addicted	108	0.5	(Tilahun 2016)
Agee category 27yrs and 18 - 22yrs	14% (18-22 yrs.) and (3%) > 27yrs Addicted	184	0.41	(Tila hun 2016)

Table 2Social Media Usage characteristic of Employees Participant Gumbi Bordode, West Hararghe, Oromia, Eastern Ethiopia, 2025

Variables	Frequency	Percent
Types of Social Media Use		
Face book	115	34.4
You tube	30	9.0
Tik-Tok	70	21.0
Telegram	107	32.0
Others	12	3.6
Total	334	100.0
Place Where You Use social media		

work place	94	28
Home	204	61.2
Internet café	28	8.4
Another place	8	2.4
Purposed of social media used		
Chat with friends	44	13.2
To meet old friends	36	10.8
For jobs purposes	174	52.1
To share and upholds photo and video	69	20.7
Others	11	3.3

Table 3 The six components of addiction: salience, tolerance, mood modification, relapse, withdrawal, and conflict scale items among Gumbi Bordode Public Employees, West Hararghe, Oromia, Eastern Ethiopia, 2025.

COMPONENTS	VERY RARELY		RARELY		SOME TIMES		Often		Very often	
1. Silence										
Do you spent a lot of time thinking about content & events on social media	9	.7	0	6.9	30	9	5	2.5	0	
Thought about how you could free more time to spend on SM?	5	.5	7	9	21	6	1	4.3	0	
Thought a lot about what has happened on SM recently?	3	.9	1	7.2	21	6	2	1.6	7	

2. Tolerance										
Spent more time on SM than initially intended?	7	.1	0	4	25	7	9	6.6	3	
Felt an urge to use SM more and more?	2	.6	9	9.6	05	1	9	6.6	9	
Felt that you had to use SM more and more in order to get the same pleasure from it	5	.5	2	4.6	24	7	3	1.8	0	
3. Mood modification										
Used SM in order to forget personal problems?	0		0	4	29	9	4	5.1	1	
Used SM to reduce feelings of anxiety and depression?	9	.7	8	6.3	32	0	8	3.4	7	
Used SM in order to reduce restlessness?	8	.4	6	8.7	16	5	4	2.2	0	
4. Relapse										

Experienced that others have told you to reduce your use of SM	0		9	9.6	20	6	0	4	5	
Tried to cut down on the use of SM without success?	8	.5	3	8.9	46	4	9	6.7	7	
Decided to use SM less frequently, but not managed to	0		7	6	34	0	2	1.6	1	
5. Withdrawal										
Become restless or troubled if you have been prohibited from using social media	8	.4	3	8.9	46	4	9	6.6	7	
Become irritable if you have been prohibited from using SM?	0		7	6	34	0	2	1.6	1	,
Felt bad if you, for different reasons, could not log on to SM for	0	2	2	7.5	09	3	7	3.1	6	
6. Conflict										
Used SM so much that it has had a negative impact on your job	7	.1	5	2.5	28	8	2	4.6	1	

Given less priority to hobbies, leisure activities, and exercise because of social media	5	1	0 1	0.2	19	6	6	9.8	3	
Ignored your partner, family members, or friends because of SM?	2	9	1 5	4.4	04	1	6	3.8		

Table 4 Factors associated with social media addiction, using bi-variable and multivariable logistic regression model, among Gumbi Bordode Public Employees West Hararghe, Oromia, Eastern Ethiopia 2025

Variables	Social media addiction		COR (95% CI)	AOR (95%)	P-Value
	No (%)	Yes (%)			
Sex					0.25
Female	96 (80)	24 (20)	1	1	
Male	187 (87.4)	27 (12.6)	0.54(0. 30,0.965)	0.65(0.30, 1.4)	0.3
Marital status					0.02
Single	47 (61)	30 (39)	1	1	
Married	205 (92)	19 (8)	0.15(0.075 ,0.28)	0.16(0.06, 0.38)	0.01
Divorce	18 78)	5(22)	0.44(0.146,1.296)	0.4(0.1, 1.53)	0.17
Widowed	8 (80)	2 (20)	0.39(0.078,1.971)	0.16(0.012, 2.15)	0.17
Purposed used					0.15
Chat with friends	40 (98)	4(2)	1	1	
To meet old friends	29 (81)	7 (19)	2.4(0.65 ,9.02)	5 (0.95, 27)	0.06
For jobs purposes	155 (89)	19 (11)	1.5(0.47 ,4.44)	2.9(0.71, 11.8)	0.14
To share and down load photo and video	51 (74)	18 (26)	4.1 (1.3. 13)	5 (1.32, 23)	0.01

Others	8 (73)	3 (27)	3.8(0.7, 20.09)	2.8(0.37, 21)	0.32
Place SM use					0.02
Works places	75 (79)	19 (21)	1	1	
Home	183 (90)	21 (10)	0.49(0.25 ,0.94)	0.4(0.2, 0.97)	0.04
Internet cafe	23 (82)	5 (18)	0.99(0.356 ,2.8)	0.8(0.22, 2.74)	0.69
Others	2 (25)	6 (75)	11(2.051 ,58.461)	11.7 (1.4, 94)	0.02
Time spent on social media					0.2
Less than 30 min	76 (97)	2 (3)	1	1	
1/2 to 1 hours	96 (95)	5 (5)	1.97 (0.37 ,10.48)	0.33(0.03,3.584)	0.36
1- 2 hours	69 (73)	26 (27)	14. (3.3, 63)	1.4(0.15 12.248)	0.78
More than 2 hours	37 (62)	23 (38)	24(5.285, ,105.58)	1.8 (0.18, 17.147)	0.62
Frequency visited social media					0.01
Less than 1 times	83 (99)	1(1)	1	1	
1-2 times	114 (93)	8 (7)	5.8 (0.715 47.47)	1.65 (0.46, 5.98)	0.44
Above 2 times	81 (63)	47 (37)	48.2 (6.5, 357.4)	7.7 (2.4, 25)	0.01
Position of employees					0.48
Manager	40(93)	4(8)	1		
Supervisor	41(84)	8 (6)	1.95(0.54, 6.99)		0.31

Common workers	202(84)	39 (16))	1.93(0.65,5.71)		0.23
salary of employee					1
Below 3500	21(91)	2(8.6)	1		0.45
3500 -5500	52 (79)	14 (21)	2.83(0.591, 13.53)		0.34
5500-7500	93 (83)	19 (17)	2.150(.464, 9.93)		0.43
Above 7500	117 (88)	16 (12)	1.4(0.307, 6.71)		
Age category of workers					1
< 30 years	136(81)	31 (19)	1		
31-40 years	121 (87.3)	17 (12.7)	0.6(0.325, 1.17)		0.14
41-50 years	20 (87)	3 (13)	0.66(0.164, 2.354)		0.52
> 50 years	6(100)	0	0		0.99
Types of devices used to browse					0.46
Smart phone	238 (86)	39 (14)	1		1
Library computer	19 (79)	5 (21)	1.61(0.57, 4.55)		0.37
Personal computer	26 (79)	7 (21)	1.64(0.66 ,4.04)		0.28

Figures

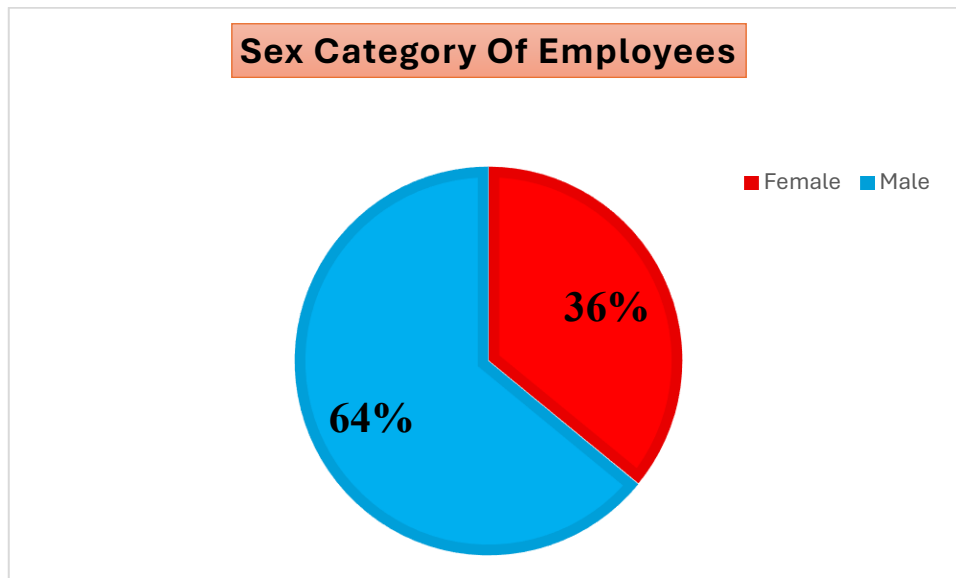


Figure 1 Employees Participants Sex Category Gumbi Bordode, West Hararghe, Oromia, Eastern Ethiopia ,2025

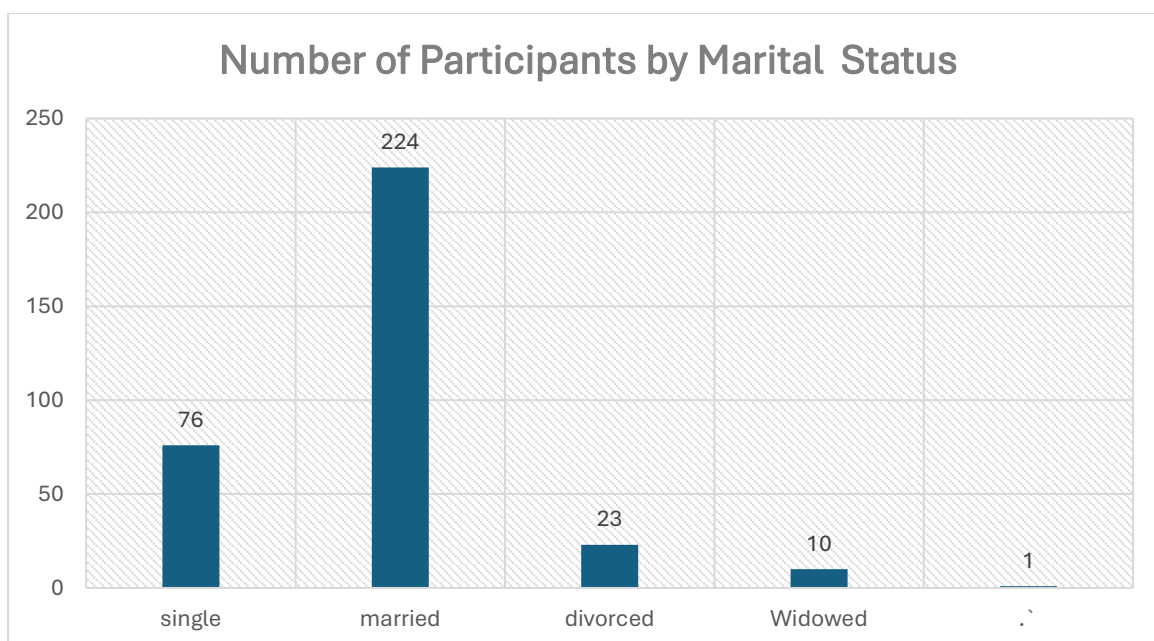


Figure 2 Employees Participants Marital Status Gumbi Bordode, West Hararghe, Oromia, Eastern Ethiopia ,2025

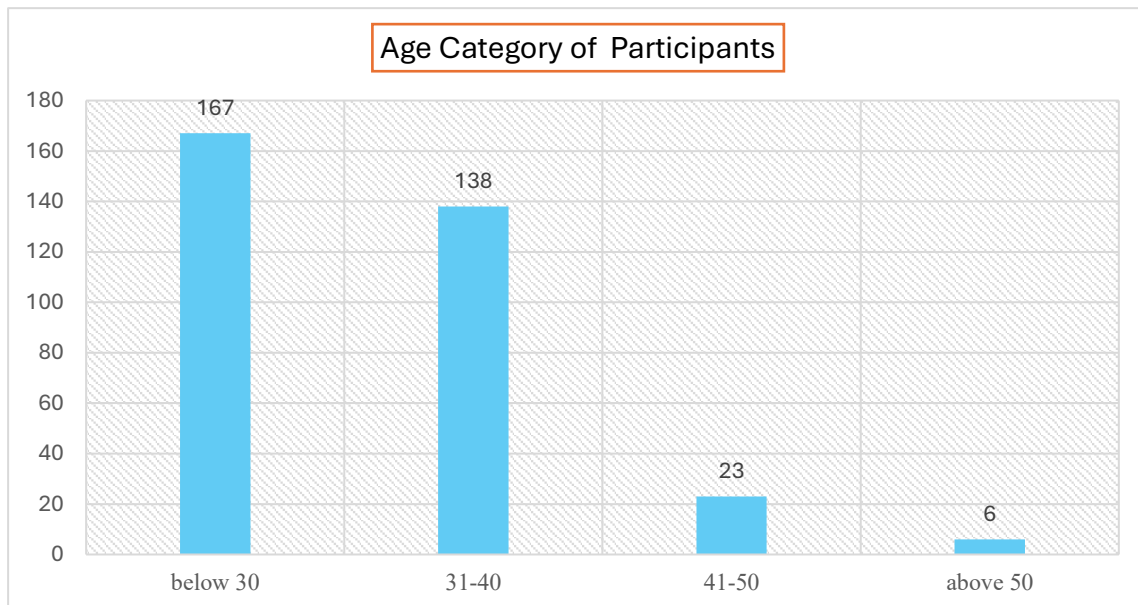


Figure 3 Employees Participants Age Category Gumbi Bordode, West Hararghe, Oromia, Eastern Ethiopia ,2025

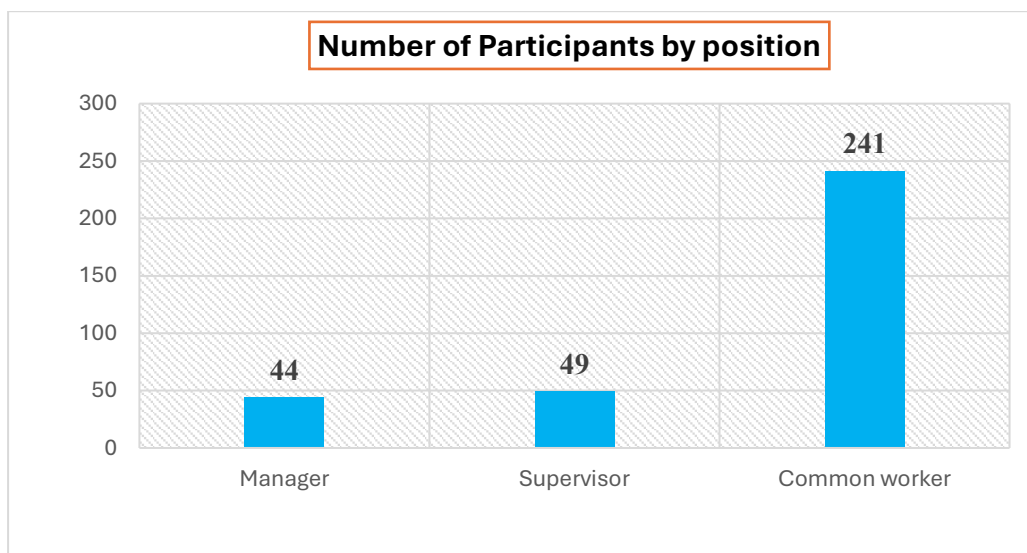


Figure 4 Employees Participants Hierarchical Position Gumbi Bordode, West Hararghe Zone, Oromia, Eastern Ethiopia, 2025

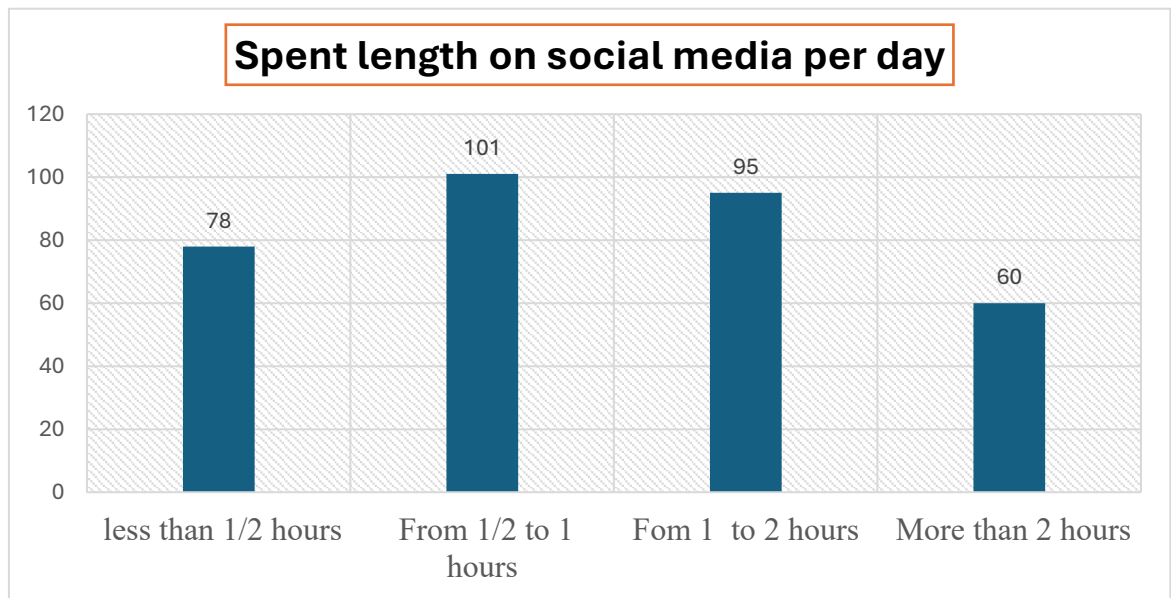


Figure 5 Employees Participant Time Spent on social media Gumbi Bordode, West Hararghe, Oromia, Eastern Ethiopia, 2025

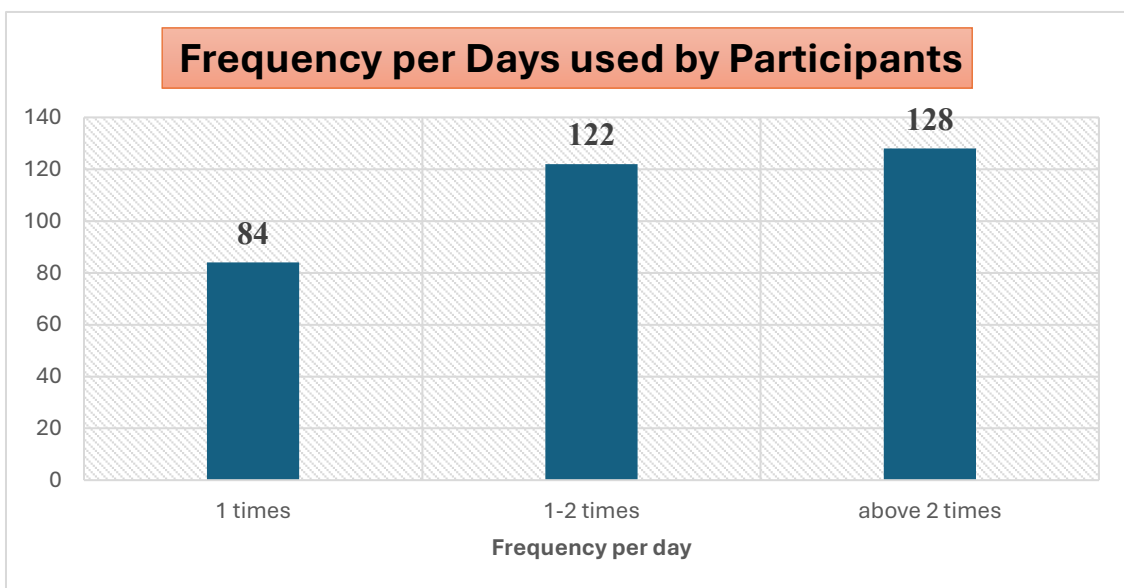


Figure 6 Employees Participants Frequency visited social media Gumbi Bordode, West Hararghe, Oromia, Eastern Ethiopia ,2025

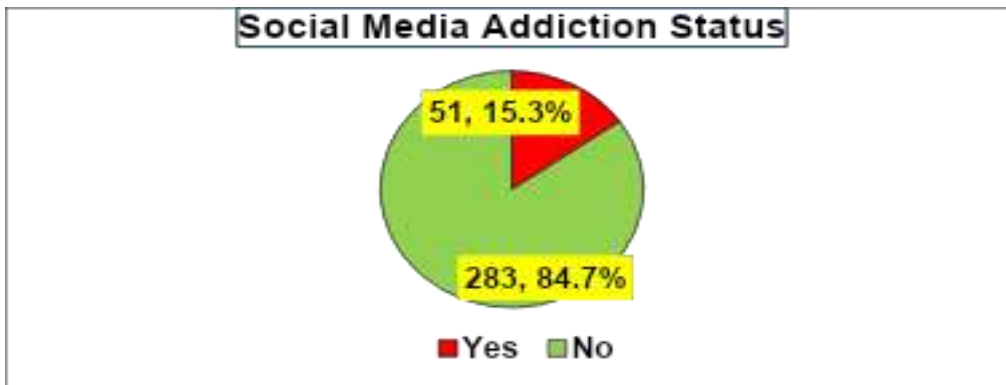


Figure 7 social media addicted and non-addicted groups among Gumbi Bordode Public Employees, West Hararghe, Oromia, Eastern Ethiopia, 2025

ANNEXES

Participants information sheets and informed voluntary consent form of participants (age ≥ 18 years)

How are you? My name is M/r/s_____. I am working as a data collector for the study being conducted among these public employees by Gemeda Bunti Gidirsu, studying for his master's degree at Haramaya University, the College of Health and medical sciences. I kindly request you to lend me your attention to explain the study and be selected as the study participant.

The study /project title: Social Media Addiction and Associated factors among employee in Gumbi Bordode districts.

Purpose/Aim of the study: Purpose/Aim of the study: -

The finding of this study can be used as a supportive resource for the regional health offices to plan intervention programs to create awareness about Social Media Addiction and Associated factors among employee in Gumbi Bordode districts. The study aims to write a thesis for the partial requirement for the fulfilment of a master's program in General public health to the principal investigator.

Procedure and duration

I will be interviewing you using questionnaire to provide me a pertinent. Additionally, **physical examination** of your child will be done. There will be 32 questions to be answered. The completion time of data collection is about 25-30 minutes, so I kindly request you to spend me this time for the interview.

Risks and benefits:

The risk of participating in this study is very minimal, but only takes a few minutes of your time. There will not get any direct payment for participating in this study. However, the findings from this research may reveal important information for the local health planners.

Confidentiality:

All the information that you will provide us will be kept confidential and placed in a secure place. I will not need to write your name identification. The questionnaire will be coded to exclude any identification, and the study findings will be general for the community. No reference will be made in oral or written reports that link participants to research.

Rights:

participation in this study is entirely voluntary. You have a right to participate or refuse in this study and not answer any questions if you feel uncomfortable within the data collection process. This will not label you for any loss of benefits to which you otherwise are entitled. You do not have to answer any question that you do not want to answer.

Contact address:

If there are any questions or concerns at any time about the study, you can

contact the concerned bodies with the following address given below:

Gemeda Bunti Gidirsa phone no.: +251913220229, email: gemebunti9028@gmail.com, and

Health Research Ethics Review Committee (IHRERC) at office phone 0254662011 or P.O. Box 235, Harar).

Declaration of Informed Voluntary Consent

I have read/was read to be the participant information sheet. I have clearly understood the purposes of study procedures, risks, benefits of participating in the study, confidentiality issues, the rights of participating, and contact address for any queries. I have been allowed to ask questions about things that may have been unclear. I was informed that I have the right to withdraw from the study or not to answer any questions that I do not want any way of affecting me. Therefore, I declare my voluntary consent to participate in this study with my signature, as indicated below.

Name and signature of participant _____, _____ Date _____

Name and signature of data collector _____, _____ Date _____ N.B: -This is signed face to face in the presence of a data collector.

Please provide a copy of this signed consent to the participants

English version Questionnaire

The interviewer should tick the interviewee's answer or write a short description if necessary.

Identification Information

Part I, II, III and IV, shall be responded to by the employee

001. Questionnaires ID NO _____

002. Public office _____

003. Code of data collector _____

004. Date of interview ____/____/____ E.C

005. Result codes: Completed =1, partially completed =2, Refused =3, others =4

Part I. Employee socio economic and demographic characteristics

1	Age in years 1. below 30 2. 31-40 3. 41-50 4. above 50
2	Sex 1. Male 2. Female
3	Position 1. Manager 2. Supervisor 3. Common worker
4	Experience 1. < 3years 2. 3-5 years 3. > 5 years
5	Ethnicity 1. Oromo 2. Amhara 3. Gurage 4. Tigrea 5. Others
6	Religion 1. Protestant 2. Islam 3. Orthodox 4. Waqefata 5. Others
7	Marital Status 1. Single 2. Married 3. Divorced
8	Salary 1. < 3500 2. 3500-5500 3. 5500-7500 4. > 7500

Part 2. Employee social media usage characteristics

9	Types of social Media Used 1. Face book 2. You tube 3. TikTok 4. Telegram 5. Others
10	Purpose of usage 1. chatting with friends 2. To meet old friend 3, for job purpose 4. To share and upload photo and Video 5. Other

11	Types of devices used to browse 1. Smart mobile phone 2. Library computer 3. Personal computer 4. Office computer
12	Time spent on social media per day 1. Less than ½ hour 2. From ½ to 1 hour 3. From 1 to 2 hours 4. More than 2 hours
13	Frequency per day 1. 1 times 2. 1-2 times 3. > 2 times
14	Place you SM 1. work place 2. Home 3. Internet cafe 4. used in all place

Part 3. Employee social media usage characteristics in six components of Addiction

COMPONENTS	VERY RARELY	RARELY	SOMETIMES	OFTEN	VERY OFTEN
1. Silence					
Do you spent a lot of time thinking about content & events on sm					
Thought about how you could free more time to spend on SM?					
Thought a lot about what has happened on SM recently?					
2. Tolerance					
Spent more time on SM than initially intended?					
Felt an urge to use SM more and more?					
Felt that you had to use SM more and more in order to get the same pleasure from it					
3. Mood modification					
Used SM in order to forget personal problems?					
Used SM to reduce feeling of anxiety and depression?					

Used SM in order to reduce restlessness?					
4. Relapse					
Experienced that others have told you to reduce your use of SM					
Tried to cut down on the use of SM without success?					
Decided to use SM less frequently, but not managed to					
5. Withdrawal					
Become restless or troubled if you have been prohibited from using sm					
Become irritable if you have been prohibited from using SM?					
Felt bad if you, for different reasons, could not log on to SM for					
6. Conflict					
Used SM so much that it has had a negative impact on your job					
Given less priority to hobbies, leisure activities, and exercise because of social media					
Ignored your partner, family members, or friends because of SM?					

(Tilahun Ermeko et al., 2021)